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2019-2020 Calendar
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Important Notice

This online version of the Saskatchewan Polytechnic Calendar is considered the official version of the Saskatchewan Polytechnic Calendar and catalogues the programs and courses available through Saskatchewan Polytechnic. While every effort is made to provide accurate and timely information, changes, errors and omissions may occur. Saskatchewan Polytechnic reserves the right to revise or cancel the information contained in this Calendar at any time without further notice, including but not limited to programs, courses, policies and procedures, regulations, fees, delivery mode and schedules. In no event shall Saskatchewan Polytechnic be liable for any direct, indirect, incidental, punitive or consequential damage related to changes to, revisions to, or cancelations of programs and/or courses. If a program and/or course is cancelled, tuition will be refunded for courses not delivered or only partially delivered. If a program and/or course is changed or revised, a refund is not applicable. Refer to Saskatchewan Polytechnic’s website at http://saskpolytech.ca for up-to-date information and confirm this information with Registration Services.

Academic Regulations

As a student, you are required to comply with these academic regulations that include all Saskatchewan Polytechnic policies and procedures. Academic regulations are published to help you effectively pursue and achieve your academic goals while maintaining a high-quality learning environment. You are expected to familiarize yourself with these regulations:

- Saskatchewan Polytechnic policies and procedures
- Attendance
- Change of name or contact information
- Course repeat
- Grading system
- Student dress
- Transcripts
- Withdrawal (voluntary)

If you have questions or concerns about these regulations, please consult with your program head. More information about these regulations can be found at http://saskpolytech.ca/admissions/resources/academic-regulations.aspx.

Saskatchewan Polytechnic official policies and procedures can be found at http://saskpolytech.ca/about/about-us/policies-procedures.aspx

General Information

The following is a brief description of general information about Saskatchewan Polytechnic. Students should review all pertinent information before enrolling in a Saskatchewan Polytechnic program. Refer to our website http://saskpolytech.ca for the most up-to-date information and for further details on each topic and other topics not mentioned herein.

Saskatchewan Polytechnic serves students through applied learning opportunities at campuses in Moose Jaw, Prince Albert, Regina and Saskatoon, and through extensive distance education opportunities. Programs serve every economic and public service sector. As a polytechnic, the organization provides the depth of learning appropriate to employer and student need, including certificate, diploma and degree programs, and apprenticeship training. Saskatchewan Polytechnic engages in applied research, drawing on faculty expertise to support innovation by employers, and providing students the opportunity to develop critical thinking skills.

How to Apply

You can apply for admission to a Saskatchewan Polytechnic program using one of three methods:

- Online
- In person (at Registration Services)
- By mail

Payment can be paid by cheque, cash, debit, Visa or MasterCard. International applicants must apply online and pay by credit card.

Admission Processes

Saskatchewan Polytechnic offers more than 150 post-secondary programs and provides training to apprentices in almost 30 trades. The application process varies. We have three types of admission processes: Competitive, First Qualified/First Admitted (FQFA) and High-Demand.

Financial Assistance

Need help paying for your tuition and fees? Investigate these options to see if you qualify:

- Canada-Saskatchewan Career Employment Services (CSCES)
- Children of Deceased Veterans Education Assistance Act
- HigherEdPoints.com
- Indigenous Student Emergency Bursary
- Saskatchewan Student Loans Program
- Veterans’ Education and Training Benefit

Also, consider applying for student awards: https://saskpolytech.ca/admissions/resources/scholarships-and-awards.aspx

Tuition and Fees

Application fees are due at the time of application. Once you are accepted to a program, you will be required to pay a deposit to hold your seat. All tuition and other assessed fees for the full academic year are generally due on the official program start date; however, you may be eligible to pay your tuition in two installments.

The two-payment plan is an installment plan used at Sask Polytech allowing those students who qualify to defer a portion of their tuition and fees. To take advantage of this plan, you must contact Enrolment Services preferably in person and pay a $100 fee.

Refer to the Tuition and Fees policy, procedures and fee schedule, the applicable Saskatchewan Polytechnic main campus schedule or the International Student Admissions information at http://saskpolytech.ca/admissions/tuition-and-fees/tuition-fees.aspx for specific details.
Prior Learning Assessment and Recognition (PLAR)

PLAR credit assesses what you know, no matter how you learned it. Knowledge and skills may be acquired through work, non-formal training, independent study, volunteer activities and hobbies. For example: If you learned computer skills at work, you may be eligible to challenge PLAR credit for a Sask Polytech computer skills course.

PLAR is an option if you:
- Cannot get transfer or equivalency credit for the same course(s).
- Have previous learning that matches the learning outcomes for one or more courses available for PLAR credit in your program.
- Are willing and able to prove what you know.
- Meet your program’s PLAR eligibility criteria.
- Consult with the program head and are approved for PLAR.
- Are prepared to pay the PLAR fee that is 75% of the tuition you would have paid.

To learn more about PLAR, visit: [https://saskpolytech.ca/admissions/get-credit/plar.aspx](https://saskpolytech.ca/admissions/get-credit/plar.aspx)

Transfer Credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx) For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx)

Services for Students

Saskatchewan Polytechnic offers a wide variety of services to students at our four campuses. Following is a list of many of our services with a brief description of what we offer. For more in depth information, visit [https://saskpolytech.ca/about/](https://saskpolytech.ca/about/)

Accessibility Services

Accessibility Services is committed to ensuring that equal access for students with disabilities is provided at Saskatchewan Polytechnic. The Accessibility Counsellors take pride in offering excellent services and supports.

Whether you are a student who is accessing online or in-person courses, there is a broad range of supports including academic accommodations and assistive technology training available.

Please register with Accessibility Services as soon as possible. Students with disabilities together with their Accessibility Counsellor work to identify the best solution for academic success. Accessibility Services looks forward to working with you to achieve your academic goals.

Saskatchewan Polytechnic Accessibility Services include:
- Designated seating
- Learning Related Supports/Reasonable accommodations
- Funding for learning supports
- Early Start Transition Workshop

For more information refer to: [https://saskpolytech.ca/student-services/support/accessibility-services.aspx](https://saskpolytech.ca/student-services/support/accessibility-services.aspx)

Bookstores

Campus bookstores are your one-stop shop for all of your course materials including textbooks, ebooks, stationary, merchandise, giftware and clothing. Visit the following for more information: [https://saskpolytech.ca/student-services/academic/bookstores.aspx](https://saskpolytech.ca/student-services/academic/bookstores.aspx)

Child Care

Child care services are available for students and employees of Saskatchewan Polytechnic and are currently offered at our Regina Campus, Prince Albert Campus and Saskatoon Avenue W Centre. All three child care centres employ staff who are early childhood educators.

Counselling Services

Counsellors at each campus provide information and counselling services to prospective students and enrolled students. Contact with a counsellor may be client initiated or the result of a referral. Issues discussed within the context of a counselling interaction remain confidential. Counsellors offer guidance and advice related to:
- Academic, financial and personal concerns
- Career development
- Program selection and admission advising
- Accommodation for students with disabilities
- Personal readiness

Throughout the academic year, Counselling, in cooperation with Learning Services, may offer workshops to help students succeed.

Dental Clinic

Sask Polytech’s dental clinic at the Regina campus offers dental hygiene and services. Clients of all ages are welcome. Clients are expected to stay for approximately 2.5 hours. More than one appointment will be required for most services.

Dental care is provided by licensed dental therapists, dentists and dental assistants who are assisted by Sask Polytech dental assisting students. Dental hygiene care is provided by Sask Polytech students, under the supervision of licensed dental hygienists and dentists.

Services offered:
- Dental hygiene and care
- Examinations
- Extractions
- Fillings
- Fluoride treatments
- Mouth Guards
- Nutrition and tobacco cessation information
- Oral cancer screening
Education Equity
Saskatchewan Polytechnic has had a comprehensive Education Equity Program since 1990. This allows us to work towards developing a student body that represents every segment of Saskatchewan’s population. The Education Equity program, in accordance with Saskatchewan Human Rights Commission guidelines, seeks to assure enrolment and graduation of these designated groups:

- people of Indigenous ancestry
- people with one or more disabilities
- members of visible minority groups
- women interested in trades or technology

Enrolment Services
Enrolment Services coordinates and administers Saskatchewan Polytechnic functions such as:

- admission
- registration
- fee assessment
- student loans
- tuition and fee payments
- photo identification cards
- T2202A tax receipts
- student records (academic and biographical)
- enrolment verification
- transcripts and credentials

Food and Vending Services/Student Lounges
Saskatchewan Polytechnic has plenty of dining options to fuel your body and mind. Cafeterias in Moose Jaw, Prince Albert, Regina and Saskatoon offer hearty soups, healthy salads, home-style pizza and a variety of comfort foods. Each serves fresh sandwiches, baking, breakfasts, hot lunch specials, desserts and grab-and-go snacks daily. Each campus offers food services with a variety of healthy food choices. Services are available during the school year, from approximately September until June.

The Students’ Association also offers SPSA Express “fast food” in Henri’s Student Lounge at the main campus Saskatoon and in the Academic Centre in the Prince Albert campus.

Vending machines are also available with snacks and beverages. Student lounge areas offer an opportunity for students to eat, relax, study or connect in a comfortable setting. The lounge features access to free Wi-Fi. All on-campus dining venues are available for catered functions.

Health Services
As a Saskatchewan Polytechnic student or employee, you can access a registered nurse conveniently and confidentially at any of our main campuses. Whether you’re feeling stressed out, need treatment or support, or require specific health information, come and see us. Walk-in at your convenience or make an appointment to fit your schedule. Health services include:

- Health information and counselling
- Health promotion activities
- Immunizations
- Minor first aid
- Referrals to health professionals

Regina Campus (Regina) also has a Nurse Practitioner role.

Housing
If you are looking for an apartment, room and board or shared accommodation, the Students’ Association maintains this housing registry: [http://spsa.ca/housingregistry/map_pa.php](http://spsa.ca/housingregistry/map_pa.php)

Saskatchewan Polytechnic or the Students’ Associations do not investigate or approve accommodations listed in the housing registries and we do not assume responsibility for rental arrangements made between you and the landlord. You might also find accommodation by searching local classified listings online and in local newspapers.

Saskatchewan Polytechnic Prince Albert Campus features 36 two-bedroom townhouse-style units, including two wheelchair-accessible suites, which are specially designed for family living. The units are intended to provide quality, safe and affordable rental accommodation for full-time Saskatchewan Polytechnic students with children.

Students attending the Regina Campus may want to consider:

- The University of Regina campus residences. For more information, call 1-866-354-3394 or visit: [https://www.uregina.ca/housing/](https://www.uregina.ca/housing/)
- Luther College Residence. For more information call 1-306-585-5333 or visit [https://www.luthercollege.edu/university/residence-food-services/residence](https://www.luthercollege.edu/university/residence-food-services/residence)

Indigenous Student Success Strategy
Situated on Treaty 4 and Treaty 6 territories, and Homeland of the Métis people, Sask Polytech is committed to the renewal of relationships — miyo wahkohtowin — with our Indigenous communities. For Sask Polytech, this means we must integrate Indigenous ways of being, knowing, teaching and learning in everything we do.

In June 2018, Sask Polytech unveiled a new Indigenous Success Strategy that builds on the success and lessons learned from the 2009 Aboriginal Student Achievement Plan. Keeping its primary focus of Indigenous Student Success, this new strategy contributes to Sask Polytech’s efforts to meet the Truth and Reconciliation Commission of Canada’s Calls to Action and to live up to its commitments under the Colleges and Institutes Canada’s Indigenous Education Protocol. Along with other institutional plans and initiatives, such as the Academic Model, it will help Sask Polytech meet the needs of our Indigenous communities and create an inclusive, welcoming place of learning.

Indigenous Students’ Centres
Sask Polytech has an Indigenous Students’ Centre in each of our campus cities. These centres provide support to Indigenous
students and helps to ensure that their experience is the best it possibly can be.

Each centre hosts a variety of cultural activities and events, provides a quiet space to study and a number of services including:

- Space to study and socialize
- Computers and kitchen to use
- Cultural, educational and recreational workshops and activities
- Smudging ceremonies
- Soup and bannock lunches

The centres provide a safe space for students to connect with Elders, Knowledge Keepers or cultural advisors who provide support on both school and personal matters, helping students cultivate success in their lives. Centres are open from Monday to Friday, 8:30 a.m. to 4:30 p.m.

**Indigenous Student Advisors**

Saskatchewan Polytechnic helps support Indigenous student success through dedicated student advisors. Indigenous student advisors create student success by providing:

- A friendly face, helpful connections to services and support
- Orientation to Saskatchewan Polytechnic and surrounding community
- Referrals for tutorial support
- Funding, housing, budgeting and employment information
- Connections to outside resources and networks
- Assistance organizing study groups and informational, social and cultural events

For more information on Indigenous services, visit: [https://saskpolytech.ca/student-services/support/indigenous/indigenous-students-resources.aspx](https://saskpolytech.ca/student-services/support/indigenous/indigenous-students-resources.aspx)

**International Students**

Saskatchewan Polytechnic welcomes international students to learn in Saskatchewan or study Saskatchewan Polytechnic programs abroad.

We are an employer-responsive polytechnic that supports economic growth through applied learning and applied research. Polytechnics provide people with applied learning opportunities, equipping them with marketable knowledge and skills that business and industry need to grow.

As a polytechnic, we offer a comprehensive suite of programming, including certificates, diplomas and degrees. Many programs have strong articulation agreements with universities across Canada, with grads often receiving two years of credit towards a degree.

We also have information for future international students translated for Brazil, China, Indonesia, Korea, Latin America, Middle East, Russia, Thailand, Turkey and Vietnam.

To contact us, please email [international@saskpolytech.ca](mailto:international@saskpolytech.ca)

Please allow for two business days for a response.

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**Learning Services**

Assistance is available for all Saskatchewan Polytechnic post-secondary students.

**Learning Services can help you:**

- Refresh your academic skills
- Get help with basic mathematics
- Learn how to communicate more effectively
- Develop stronger writing skills
- Develop stronger study strategies
- Prepare for and write exams

Learning Services are available to all post-secondary students. The services include:

- Individual or small group academic skills instruction
- Group presentations on topics like time management, study skills, exam preparation, exam anxiety, writing skills and math skills

**Library Services**

Saskatchewan Polytechnic Libraries provide service to all Saskatchewan Polytechnic students, faculty, and staff. Each campus library includes a learning commons, study space and comfortable seating. Our friendly and professional staff members can assist you in person, by email, or telephone.

**Parking and Transit**

Saskatchewan Polytechnic charges for parking at its facilities and it maintains the right to periodically review and adjust its parking rates. Paid parking is in effect between 6:00 a.m. and 10:00 p.m., seven days a week. Anyone without a valid hang tag will need to purchase a pay and display ticket and have it prominently displayed.

All Saskatchewan Polytechnic campuses are served by their respective city transit authorities. For more information about transit, contact the transit department in the city where your campus is located.

**Student Employment Services**

It’s clear that employers want to find Sask Polytech students and grads. More than 300 employment opportunities are on our online posting service. Just contact the Student Employment Services consultant in your campus city to get your login information.

Students and alumni are invited to career fairs scheduled in January and February each year.

You may also want to check out Sask Careers, a site that helps job seekers and employers locate and post-employment opportunities in Saskatchewan.

Student Employment Services is your link to Sask Polytech students and grads. As well, as posting employment opportunities on our online posting service and hosting the annual career fair, we:

- Arrange on-campus interviews and employer visits
- Contact students and grads about employment opportunities
- Provide up-to-date employer information, job search tools and labour market trends

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Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020 9
Student Recruitment Advisors

Student recruitment advisors (SRAs) can help you find answers to questions about programs offered on campus, services for students, application procedures, admission requirements, orientation, campus tours and CSI (Come. See. Investigate.) events.

Students’ Association (SPSA)

The Students’ Association provides peer support, services and organizes student activities and clubs, as well as locker rentals. Contact your campus students’ associations for more information or visit www.spsa.ca

Moose Jaw: 1-306-691-8515
Prince Albert: 1-306-765-1708
Regina: 1-306-775-7820
Saskatoon: 1-306-659-4421

Your time at Saskatchewan Polytechnic shouldn't be limited to academic learning. Get more from your education by getting involved with our year-round activities. Join a club, be a part of student government, volunteer your time and skills – build confidence and have fun. What are you waiting for? Get involved!

Test Centres

Each main campus has a Test Centre operated by the Library and Testing Services. These facilities are for students, faculty and staff, as well as the public.

- Provide secure testing environments.
- Administer ACCUPLACER tests ($25 per module).
- Administer keyboarding tests.
- Proctor services for other colleges, universities and agencies at a fee. You may use the booking system to book your tests.
- Group testing for external agencies and organizations. Please contact us.

Saskatchewan Polytechnic Testing Services is a member of the National College Testing Association, an organization that focuses on issues surrounding testing in post-secondary institutions.

Wellness Strategy (Fitness/Recreation/Sports)

Saskatchewan Polytechnic recently conducted a review of our Recreation Services, which included recent post-secondary trends, external research and consultation with external experts and students. Based on this review, Sask Polytech discontinued our Athletics program and changed our fitness service model to focus services on a new Wellness Strategy. For more information on the Wellness Strategy visit: https://saskpolytech.ca/student-services/support/wellness.aspx

For specific information on what Wellness Programs are offered at your campus, please visit: https://saskpolytech.ca/student-services/support/wellness-programs.aspx

Register online at saskpolytech.ca or call 1-866-467-4278
Apprenticeship

About Apprenticeship Training

- Apprenticeship is a formal agreement between an individual who wants to learn a skill and an employer who needs a skilled worker.
- Apprenticeship training is a multi-year "earning-while-learning" arrangement for a required term.
- Apprentices already have jobs in their desired field of work, and have signed a contract of apprenticeship with their employer and the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).
- Under the supervision of a certified journeyperson, an apprentice receives knowledge and develops skills thorough on-the-job training.
- Apprenticeship skills learnt on the job are supplemented with a required number of weeks of in-school technical training each year.
- Upon successful completion of an apprenticeship program, you are eligible to write an examination to become a certified journeyperson in your trade.

Apprenticeship Contract

You may enter into an apprenticeship contract (become indentured) if you:

- are 16 years old or older
- have the proper educational requirements
- work in a designated trade (either as an employee, employer or self-employed shop owner)

When signed, the apprenticeship contract is registered with the Saskatchewan Apprenticeship and Trade Certification Commission.

Technical Training

- Saskatchewan Polytechnic provides the in-school portion of apprenticeship training for 20 apprenticeable trades.
- Technical training provides you with theory, testing and hands-on experience. It is available in Regina, Moose Jaw, Saskatoon and Prince Albert.
- Technical training is also available in cities in other provinces (for some trades).

Training Programs and Other Information

All apprenticeship training is scheduled by the SATCC. For more information about the trades listed below (requirements for technical and on-the-job training, entrance level and journeyperson examinations) or for information about start dates for specific training periods, please contact the Saskatchewan Apprenticeship and Trade Certification Commission at http://saskapprenticeship.ca/about-us/contact-us/ or:

2140 Hamilton Street
Regina SK  S4P 2E3
Phone: 306-787-2444
Toll-free: 1-877-363-0536
<table>
<thead>
<tr>
<th>Program Name</th>
<th>Campus(es)</th>
<th>Term of Apprenticeship</th>
<th>Length of Training at Saskatchewan Polytechnic per Year/Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Equipment Technician</td>
<td>Saskatoon</td>
<td>4 years</td>
<td>8 weeks per year</td>
</tr>
<tr>
<td>Automotive Service Technician</td>
<td>Moose Jaw, Saskatoon</td>
<td>4 years</td>
<td>8 weeks per year</td>
</tr>
<tr>
<td>Automotive Service Educational Program (ASEP)</td>
<td>Regina, Saskatoon</td>
<td>4 years</td>
<td>8 weeks per year</td>
</tr>
<tr>
<td>Bricklayer</td>
<td>Saskatoon</td>
<td>3 years</td>
<td>8 weeks per year</td>
</tr>
<tr>
<td>Carpenter</td>
<td>Moose Jaw, Prince Albert, Regina, Saskatoon</td>
<td>4 years</td>
<td>7 weeks per year</td>
</tr>
<tr>
<td>Construction Craft Labourer</td>
<td>Moose Jaw</td>
<td>2 years</td>
<td>4 weeks per year</td>
</tr>
<tr>
<td>Cook</td>
<td>Moose Jaw, Prince Albert, Saskatoon</td>
<td>3 years</td>
<td>40 days per year</td>
</tr>
<tr>
<td>Construction Electrician</td>
<td>Moose Jaw, Prince Albert, Regina</td>
<td>4 years</td>
<td>Level 1: 8 weeks, Level 2: 8 weeks, Level 3: 9 weeks, Level 4: 8 weeks</td>
</tr>
<tr>
<td>Heavy Duty Equipment Mechanic</td>
<td>Saskatoon</td>
<td>4 years</td>
<td>8 weeks per year</td>
</tr>
<tr>
<td>Instrumentation and Control Technician</td>
<td>Moose Jaw</td>
<td>4 years</td>
<td>10 weeks per year</td>
</tr>
<tr>
<td>Industrial Mechanic (Millwright)</td>
<td>Saskatoon</td>
<td>4 years</td>
<td>8 weeks per year</td>
</tr>
<tr>
<td>Ironworker (Structural/Ornamental)</td>
<td>Moose Jaw</td>
<td>3 years</td>
<td>Level 1: 8 weeks, Level 2: 8 weeks, Level 3: 6 weeks</td>
</tr>
<tr>
<td>John Deere Ag Tech</td>
<td>Saskatoon</td>
<td>4 years</td>
<td>Level 1: 12 weeks, Level 2: 8 weeks, Level 3: 12 weeks, Level 4: 8 weeks</td>
</tr>
<tr>
<td>Machinist</td>
<td>Saskatoon</td>
<td>4 years</td>
<td>Level 1: 8 weeks, Level 2: 8 weeks, Level 3: 8 weeks, Level 4: 6 weeks</td>
</tr>
</tbody>
</table>

Register online at saskpolytech.ca or call 1-866-467-4278
## Apprenticeship

<table>
<thead>
<tr>
<th>Program Name</th>
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<th>Term of Apprenticeship</th>
<th>Length of Training at Saskatchewan Polytechnic per Year/Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal Fabricator (Fitter)</td>
<td>Saskatoon</td>
<td>3 years</td>
<td>8 weeks per year</td>
</tr>
</tbody>
</table>
| Motor Vehicle Body Repairer (Metal and Paint) | Saskatoon, Regina | 4 years                | Level 1: 6 weeks  
Level 2: 6 weeks  
Level 3: 7 weeks  
Level 4: 7 weeks |
| Partsperson                           | Online           | 3 years                | Level 1: 8 weeks  
Level 2: 8 weeks  
Level 3: 6 weeks |
| Plumber                               | Saskatoon, Regina| 4 years                | Level 1: 8 weeks  
Level 2: 8 weeks  
Level 3: 7 weeks  
Level 4: 7 weeks |
| Refrigeration and Air Conditioning Mechanic | Saskatoon        | 4 years                | 8 weeks per year                                              |
| Sheet Metal Worker                    | Saskatoon        | 4 years                | 8 weeks per year                                              |
| Steamfitter-Pipefitter                | Saskatoon        | 4 years                | Level 1: 8 weeks  
Level 2: 8 weeks  
Level 3: 7 weeks  
Level 4: 7 weeks |
| Truck and Transport Mechanic          | Saskatoon        | 4 years                | 8 weeks per year                                              |
| Welder                                | Moose Jaw, Regina, Saskatoon | 3 years                | Level 1: 7 weeks  
Level 2: 7 weeks  
Level 3: 8 weeks |
Academic Upgrading, Adult Literacy Learning Centre, Employment Readiness and English Language Training

Academic Upgrading

Education opens doors - to better jobs, better pay, and better career choices. If gaps in your education are holding you back, check out academic upgrading at Saskatchewan Polytechnic. We can help you unlock those doors and build a brighter future.

Sask Polytech offers academic upgrading at all four campuses, free of charge.

Enrollment in academic upgrading is restricted to adults 19 years of age and older or 18 years of age and out of school for at least one year.

Each campus has four intakes per year. Regina campus also offers three intakes of evening classes.

Literacy – Levels I and II

Level I is an introductory program that helps improve reading, writing, listening, speaking skills and computer literacy. It also covers interpersonal skills, lifelong learning and basic math.

Level II lets you continue building your literacy skills and prepare for entry into Adult 10.

Math Literacy

Our literacy math programs start at your math skill level. Maybe you need to remember how to work with whole numbers or fractions? Maybe it's ratios that need some work? Literacy programs will help you with everyday math skills and prepare you for more advanced math in your future studies.

Adult 10

The Adult 10 program is an important step up the career ladder, whether you want to continue your education or move into the workforce. The program helps:

- improve your communication, math, science and social science skills
- learn how to think critically and make information decisions; and
- explore personal growth and life-long learning in life/work studies.

Adult 12

Completing the Adult 12 program allows students to obtain the academic requirements for application to post-secondary programs or for employment that requires high school graduation. All 30-level classes meet the curricula requirements of the Ministry of Education. Adult students are not required to have 10- or 20-level prerequisites before enrolling in 30-level classes, but the prerequisites are strongly recommended to ensure sufficient skill development for successful completion. Students who already have credits at the 20- or 30-level from other Saskatchewan schools can apply eligible credits toward their Adult 12 completion. Credits earned outside Saskatchewan may also contribute toward Adult 12 completion.

For more information on Adult Upgrading, please go to https://saskpolytech.ca/programs-and-courses/upgrading/academic-upgrading.aspx

Adult Literacy Learning Centre (Regina)

Improve your literacy skills—reading, writing, math—and improve your life. Drop by Sask Polytech’s adult literacy/learning centre at our Regina campus for information, inspiration and the support you need to achieve your learning goals. Our doors are open Monday to Friday.

Get adult-focused, one-on-one help with your reading, writing, math, computer and job-search skills. We will get you ready for Adult 10 and Adult 12 upgrading or help you prepare for academic and English proficiency tests.

We use the Circle of Learning Saskatchewan Adult Literacy Benchmarks Levels 1 and 2 as a guide for providing individualized instruction to students. Students are recommended for programming in the ALLC based on the results of an ACCUPLACER assessment. Enrolment is ongoing.

Upon entrance into the program, the academic needs of students are assessed and programs of study are recommended to best meet the learners’ needs. Programs are individualized to provide students with a foundation of basic skills in the following areas:

- communications;
- computer use and technology;
- mathematics; and
- interpersonal and work experience skills.

Upon completion of studies, you may move into other areas of study including Adult 10 programs. Classes run Monday to Friday, 9 a.m. to 2:50 p.m. For more information please call Bob Stephenson at Robert.Stephenson@saskpolytech.ca or 306-775-7914.

Employment Readiness

Are you ready for work? Do you know what to expect - or what employers will expect from you? Saskatchewan Polytechnic’s employment readiness programs prepare you for the world of work through in-class and on-the-job training.

Our programs are designed to meet the unique needs of adults with low literacy, adults with disabilities and individuals of First Nations ancestry. You will enjoy one-on-one support and small group learning. We collaborate with local businesses and industries to give you learning and work placements.

For more information please call Bob Stephenson at Robert.Stephenson@saskpolytech.ca or 306-775-7914.
English Language Training

Language Instruction for Newcomers to Canada (LINC)

Have you recently immigrated to Canada? Saskatchewan Polytechnic offers LINC in Saskatoon and Regina. LINC can help develop your English language skills up to CLB 10 so that you can successfully integrate into Canadian society. Listening, speaking, reading and writing skills are enhanced through a variety of classroom activities and uses of technology. To be eligible, you must have permanent resident status in Canada and have a completed Canadian Language Benchmarks Placement Test (CLBPT).
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MacLean, Christa, RN, BScN, M.N – Associate Dean, School of Nursing, School of Health Sciences
Suru, Brenda, Cert. (Microcomp. Mgmt.), Dip. (Rec. Tech.), B.Sc. – Associate Dean, School of Mining, Energy and Manufacturing, School of Natural Resources and Built Environment

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VACANT – Director, Business Process – Strategy
Nathan Rising – B.Com., MBA, MPA - Director, Strategy
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Hauta, Denise, B.Admin., MPR. – Director, Extension
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Carter, Paul, BBA - Dean, School of Construction, School of Transportation
Hilts, Jamie, B.Ed., M.Sc. – Dean, School of Mining, Energy and Manufacturing, School of Natural Resources and Built Environment
Malik, Has, PhD – Dean, School of Business, School of Information and Communications Technology
Tomlinson, Julian, BPE, MA, CEC – Dean, School of Hospitality and Tourism, School of Human Services and Community Safety and Department of Literacy and Adult Education

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Sask Polytech Calendar 2019-2020
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Kemp-Koo, Debra, R.D. Psych., PhD – Director, Counselling, Health & Accessibility
Marshall, Deirdre, BA, BAC, CHRP – Director, Human Resource Advisory Services
VACANT - Director, Giving
Misfeldt, Rian, BA, MLIS – Director, Library & Testing Services
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Resch, Dustin, BA, MA, PhD - Director, Enrolment Services & Registrar
Rogers, W. Kevin, B.Comm., LL.B. – Director, Applied Research and Innovation
Saunders, Raymond, Dip. (Comp. Eng.), MBA – Director, Architecture, Data & Applications Services
Seright, Jason, B.Ed., M.Ed. – Director, Indigenous Strategy
Simister, Tiffany, PMP, ISP, ITCP – Director, Application & Business Services, Information Technology Services
Soanes, Donald – Director, Employee Relations
Tannie, Derek, M.A., M.Ed. – Director, Student Engagement & Learning Services
Wojcichowsky, Angela, B.Comm., MPA – Director, International Projects

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VACANT – RPL Facilitator (Regina Campus)

Learning and Teaching
Instructional Leadership and Development Centre

Moose Jaw Campus
England, Selinda, MA TESOL
Fiegel, Keenan, FCP, B.Kin.

Saskatoon Campus
Amiotte Bilinski, Nicole, B.Ed., M.Ed.
Ameson, Angela, BA, B.Ed., M.Ed.
Hobday, Joyce, Cert. (TESL), BA, B.Ed., Cert. (Prof. A Teach.), M.Ed.

Regina Campus
Bain, Jennifer, Cert. (Prof. A Teach.), Dip. (EET), B.Sc., M.Ed.
Seidler, Lindsay, BBA, B.Ed., Cert. (Prof. A Teach.), M.Ed.

Prince Albert Campus
Mervold, Deborah, BA, B.Ed., M.Ed. – Program Development Consultant

Extension
Saskatoon Campus
Dugan, Ashley, B.Ed.
Fahlman, Miles (Interim CEC), B.Sc., BA, MA
LaCroix, Lance (Interim CEC), BA, MBA

Marcia, Jim, Inter-Prov. Jny. (AST), Cert. (V/T.Ed.) (on leave)
Roberts, Kate, Dip. (ECE), B.Ed.
Patrick, Kevin, B.S.A., P.Ag, FCP
Tessier, Ryan, MSc., Cert. Econ.

Prince Albert Campus
Hopkins, Sharon, CACE, j/im

Learning Technologies
Saskatoon Campus
Trottier, David, BFA, M.Ed. – Program Head (Acting), Learning Technology Trainers
Crosby, Gary, Adv. Cert. (Sc.), B.Sc., MA
Jarvis, Laurie, B.Ed., M.Ed.
Ng, Diana, B.Sc. (HONS), MET, MLIS (on leave)
Bagnall, Brittany, BA., B.Ed., M.Ed.

Moose Jaw Campus
Steele, Ray, Cert. (EST, AVS), Inter-Prov. Jny. (EST) – Supervisor, Classroom & Video Technology – Program Head (Acting), Web Publishing
Hu, Kelvin, BA, MA, M.Sc.
Coupal, Joshua, Dip. (Biotech), BA, B.Ed.
Schindelka, Barb, B.Ed., M.Ed.

Regina Campus
Dietrich, Don, BBA, B.Ed., MDE – Program Head, Instructional Design
Aksomitis, Linda, MVTE

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Saskatchewan Polytechnic Governance, Administration and Faculty

Schroeder, Curt, Cert. (Admin.; Comp. Sci.; Multimedia & Internet Dev.), B.Sc., M.E.D.
Zubot Mitchell, Myra, BSW, M.C.Ed.

Prince Albert Campus
Crosby, Nicholas, Cert. (Prof. A Teach.), B.Ed., M.Ed. – Manager, Educational Technology Initiatives
Brockman, Annette B.Ed., M.Ed.
Carswell, Nancy BA, B.Ed., MA
Martin, Glenys B.Ed., M.Ed.
Riese, Deanne, Cert. (MCM, V/T.Ed., FCP), MALAT

Library Services

Moose Jaw Campus
Liang, Ann, BA, B.Sc., MLIS
Shrubsole, Jennifer, BA, MA, MLIS

Saskatoon Campus
Burke, Kelly, BA, MLIS
Ha, Chau, BA, BScN, MLIS
Harrison, Fabian, Met. Tech., B.Sc., MLIS
Sainsbury, Michael, BA, MA, MLIS, CAPM
Verishagen, Nina, BA, MLIS (on leave)

Regina Campus
Canham, Robin, Cert. (TESL), BA, MSt
Langman, Erin, BA, MA, MLIS
Nielsen, Juliet, BA (Hons.), MLIS - Manager
Zerr, Diane, BA, MLIS

Prince Albert Campus
Balfour, Regan, BA (Hons.), MLIS - Manager
Maddison, Tasha, BA, MLIS
Szeman, Becky, BA, MLIS

Simulation Learning Centres
Exner, Ken, FCP, ACP – Manager

Saskatoon Campus
Delveaux, Kara, ACP, BHSc-P – Program Head
Stene, Karen, RN, BA, BSN
Anderson, Aileen – RN, BScN

Regina Campus
Wiens, Nicole, RN, BScN – Program Head
Teetaert, Janaya, RN, RPN, BScN
Garven, Hugh, ACP, RN
Storey, Suzanne – RN, BScN, BA

Arts & Sciences
Herman, Deanna, BA, MA – Academic Chair, Arts & Sciences and Natural Resources

Regina Campus
Morrison, Stephanie, B.Sc., M.Sc., DC - Department Head/CEC, Arts & Sciences
Acoose, Tannen, B.Sc., M.Sc.
Besharah, Gregory, BA (Hons.), MA
Buckley, Wendy, MD
Campbell, Mark, BA
Cross, Cara, Dip. BA, B.Ed.
Dzioba, Heather, RD, B.Sc., M.Sc. (Nutrition)
Hembrow, Margot, B.Ed.
Johnson, Annette, BA (Hons.), MA
Knutttila, Erin, BA (Hons.), MA
Marchand, Joanne, B.Sc.
Mintzler, Daryn, B.Sc. (Hons.), DC
Olshiefsky, Stephen, BA, M.Sc.
Poon, Nancy, BA, MA, M.Phil., PhD
Renwick, Chantelle, Graduate Dip. (Teach.), BA
Scheerer, Rana, BA (Hons.), M.Ed. (Psychology)
Sosna, Donald, BES, BA, M.Arch.
Tessier, Ryan, Cert. (Economics), B.Sc., M.Sc. – CEC
Usman, Ajmal, MD
Wood, C. Tyler, B.Sc. (Hons.), M.Sc.

Prince Albert Campus
Bonneau, Michele, FCP, B.Ed. MA – Program Head
Finlayson, Kari, BA, M.Ed.
Megaflin, Gary, Cert. (Prof. A Teach.), B.Sc.
Sundby, Brenda, B.Ed.

Saskatoon Campus
Gibson, Merle, Cert. (Prof. A Teach.), FCP, B.Ed., B.Sc. – Program Head
Aliemo, Martin, B.Sc., M.Sc., PhD, P.Eng.
Besharah, Gregory, BA (Hons.), MA
Buckley, Wendy, MD
Emadi, Bagher, B.Sc., M.Sc., PhD
Frank, Dave, BA, M.Sc.
Groenen, Wilma, BA (Hons.), MA
Johnsrude, Arlene, BA, B.Ed., M.Ed.
Kassian, Donna, B.Ed., M.Ed.
King, Denis, Cert. (Prof. A Teach.), BGS, B.Ed.
Martyniuk, Devin, FCP, B.Sc.
Matheson, Laura, BA, MA
McDonald, Susan, BA, (Hons.), MA
Miine, Renee, B.Sc.
Papp, Theresa, BA, CDP, M.Ed.
Rijal, Sanjeev, B.Sc., M.Sc.
Roy, Anupam, B.Sc., M.Sc.
Sanders, Lee, BA (Hons.), MA
Steel, David, Cert. (TESL, Physics), B.Sc. (Adv.), M.Sc., PhD
Zeng, Renying, B.Sc., M.Sc., PhD

Moose Jaw Campus
Langman, Blaine, B.Sc., B.Ed. – Program Head
Bingham, Andrew, BA, MA
Chubey, Dallas, B.Ed.
DeCorby, Mike, B.Ed.
Dill, Alan, B.Sc. (Hons.), B.Ed., M.Sc.

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Dyck, Katherine, BA (Hons.)
Evans, Gretchen, ESET dipl., B.Sc. (Hons.)
Fitzpatrick, Mark, B.Sc.
Geng, Beth, B.Eng., M.Sc.
Kennedy, Karen, BA, B.Ed.
McLeod, Tenille, BA (Hons.), MA
Rochon, Andrew, B.Sc. (Hons.)
Shiers, Brett, B.Sc. (Hons.)
Staples, Dave, B.Sc. (Hons.), B.Ed., M.Sc., M.Ed.
Tifenbach, Ryan, PhD
Touet, Heather, B.Sc., BA, MA
Wall, Kevin, BA, B.Sc.

Student Services

Career Counselling

Prince Albert Campus
Munro-McFarlane, Laura, BA, MC, CCC

Saskatoon Campus
Saunders, Kathy, M.Ed. CCC

Regina Campus
Gelsinger, Val, BSW, MSW, RSW

Counselling, Accessibility and Learning Services

Saskatoon Campus
Chappell, Gwen, M.A. (Eng), M.Ed. (Psy), CCC, ACC
Cote, Charleen, CISW, BISW, MISW, RSW
Coutts, Julia, BA, B.Ed., M.Ed., Cert (Prof. A Teach)
Davis, Genevieve, BA (Hons.), M.Ed., CCC
Dunlop, Wanetta, M.Ed., R. Psych. (APE)
Forsyth, Sasha, B.Ed., Cert. (Prof. A Teach.), M.Ed.
Greenough, Sally, BA (Hons.), B.Ed., Cert. (Prof. A Teach.), M.Ed.
Garcea, Laurie, M.Ed., R. Psych. (APE)
Healey, Susan, FCP, Cert. (Educ.), BA, MACP
Hunter, Sarah, BSW
Hootz, Terra, BA, M.Ed., R. Psych
Horner-Wilson, Dawn, MC, CCC
Karlson, Jay, BA, BSW, MSW
Kaye, Lyle, BA (Hons.) Psych
Kloeble, Candice, RSW, BSW, M.Ed.
Lehmkuhl, Paul, B.Sc. (Hons.), B.Ed., Cert. (Prof. A Teach.), M.Ed.
Loch, Karen, B.Ed., PGD
May-Melin, Gail, BA, B.Ed., Cert. (Prof. A Teach.), M.Ed., R. Psych
Mohagen, Robin, BA, M.Ed.
Mugsgrove, Heather, BA, B.Ed., M.Ed.
Roodkopp, Maureen, BHJ, BSW, MSW, RSW (SK)
Shah, Neetu, MSW, RSW
Yee, Derek, BA, BSW, MSW, RSW

Moose Jaw Campus
Ally, Abdul, B.Sc., M.Sc., Dip. (Ed.)
DeCorby, Kevin, Dip. (Ed. Adm.), B.Ed., BA
Hill, Kerri, BA., M.Ed. (Educational Psychology)
Landry-Dixon, Marissa, ACET, BSW, M.Ed., Registered Psychologist (Provisional)
Stensrud, Amy, M.Ed., R. Psych

Regina Campus
Andersen, Meranda, BA, M.C. (Ed Psych), C.C.C.
Blilinski, Michelle, BA, M.Ed., RPC-C
Gibson, Karlene, B.Ed. (Distinction), Cert. (Prof. A Teach.) M.Ed., R.Psy. (APE)
Kaufmann, Amy, B.Ed., M.Ed. (Psych) Cert. (Prof. A Teach.)
Moon-Woynzy, Paula, M.Ed., R. Psych. (Provisional)
Nixon-MacDonald, Jean, B.Sc., B.Ed., Cert. (Prof. A Teach.)
Ross, Dawn, B.Ed.,Cert. (Inclusive Studies)
Sayer-Brabant, Stacey Dawn, BSW
Touet, Heather, B.Sc., BA (Hons.), M.A.
Wolbaum, Kim BSW, MSW

Prince Albert Campus
Anderson, Daren, AME, Dip. (Micro Electronics)
Halcro, Karla BAACS
Harper, Monica, H.S. Cert., A.A.S., BSW
Jalbert, Claude, Cert (Prof A Teach.), B.Ed., PPD
McCloy, Carrie, BSW, RSW
Pelletier, Rona, BSW, MSW, RSW
Rivet, Holly, FCP, B.Ed. Cert., (Prof A Teach), M.Ed.

Business Development

Saskatoon Campus
Ilko, Ihor, PhD

Literacy and Adult Education

Lowndes, Janet, B.Ed., M.Ed. - Academic Chair

Saskatoon Campus
Finney, Margaret, Cert. (Prof. A Teach.), FCP, B.Ed., MAED, – Program Head
Kirkpatrick, Kiyomi, Cert. (Prof. A Teach.), BA (Hons.), B.Ed. – Program Head
Atchison, Michelle, Cert. (Life Skills coach), Dip. (Social Work), BPA (Human Serv)
Bromquist, Carmelle, Cert. (Prof. A Teach.), B.Ed., B.Sc., M.Ed
Bryce, Brian, Cert. (Ed.), Cert. (Prof. A Teach.), Dip. (Ed.), BRE, B.Sc., MA
By blow, Hudson, Cert. (Prof. A Teach.), FCP, B.Comm, B.Ed
Caplette, Shirley, Cert. (Prof. A Teach.), BA, B.Ed.
Devonshire, Todd, B.Ed., B.Sc. (Kin)
Eddy, Wendy, Cert. (Prof. A Teach.), TESOL, B.Ed.
Fastthuber, Sherri, Cert. (Prof. A Teach.), FCP, B.Ed.
Ferguson, Mary, Cert. (Prof. A Teach.), B.Ed., B.Sc., M.Sc.
Haichert, Dana, Cert. (Prof. A Teach.), B.Ed.
Hershman, Jody-Lyn, Cert. (Prof. A Teach.), FCP, B.Ed.
Martinez, Cruz, Cert. (Prof. A Teach.), Dip (Heavy Eq Op), FCP, B.A., B.Ed.
Olson, Reagan, Cert. (Prof. A Teach.), FCP, B.Sc., B.Ed., M.Ed.
Sondershausen, Roy, B.Sc., B.Ed., M.Ed.
Toye, Shawn, Cert. (Prof. A Teach.), B.A., B.Ed.
Warnke, Brenda, FCP, B.A., B.Ed.
Wiens-Peckham, Jeanette, Cert. (Prof. A Teach.), B.Ed., M.Ed.

Moose Jaw Campus
Martynook, Jacqui, FCP, CAET, B.Ed. – Program Head
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Bzdul, Colleen B.Ed., M.Ed.
Janice Stewart, B.Ed., B.Sc., FCP
Dahl, Beverly, B.Ed.
Gottselig, Bob, B.Ed.
McIntyre, Beverly, B.Ed., M.Ed.
Smith, Michele, Family Literacy Certificate, B.Ed.
Wildfong, Debra, B.Ed.

Regina Campus
Quackenbush, Andrew, B.Sc. (Hons.), B.Ed., MHRD – Program Head
Stephenson, Robert, Cert. (Prof. A Teach.), B.A., B.Ed., M.Ed. – Program Head
Dean, Andrew, Cert. (Prof. A Teach.), B.Ed., FCP
Flett, Jean, Cert. (Prof. A Teach.), B.A., B.Ed.
Flett, Rena, Cert. (Prof. A Teach.), B.Ed., BME
Gardiner, Susan, FCP, B.A., B.Ed.
Germain-Richards, Adrienne, Cert. (Prof. A Teach.), B.Ed.
Gervais, Wendy, Cert. (Prof. A Teach.), B.Ed.
Granger, Heather, Cert. (Prof. A Teach.), B.Ed.
Jakubowski, Keri Lynn, FCP, B.Ed., M.Ed.
Kooger, Marcia, Cert. (TESL), B.Ed.
Krahn, Mira, (Prof. A Teach.), B.Ed.
Langman, Amanda, B.Ed., B.Sc., FCP
Manweiler, Jeraylene Karen, Cert. (Prof. A Teach.), FCP, BA (Hons.), B.Ed., M.Ed.
Meghezi, Shelly, Dip (Hotel & Rest. Admin.), FCP, BA, Cert. (Prof. A Teach.), B.Ed.
Moffatt, Tami, Cert. (Prof. A Teach.), B.Ed., M.Ed.
Naqi, Afroze, Cert. (Comp. Sc.), B.Sc., B.A., B.Ed.
Nie, Junshan, FCP, MA, M.Ed., PhD
Schenk, Andrea, BA
Sy, Dana, B.Ed.
Van Os, Shelley, Cert. (Bus.), 4th Class Power Engineer, B.Ed., FCP
Walter, Wanda, FCP, B.Sc., B.Ed. (Hons)

Prince Albert Campus
Bendle, Cathy, FCP, Cert. (Prof. A Teach.), BBS, B.Ed. – Program Head
Beaulieu, Annette, CACE, Cert. (Prof. A Teach.), B.Ed.
Cappelletto, Norm, Cert. (Prof. A Teach.), B.A., B.Ed.
Fraser, Murray, Cert. (Prof. A Teach.), BA, B.Ed.
Griffith, Marie, FCP, Cert. (Prof. A Teach.), B.Ed.
Harris, R. Craig, Cert. (Prof. A Teach.), B.Ed.
Hiebert, Steve, Cert. (Prof. A Teach.), B.Ed.
Jonasson, Andrea, Cert. (Prof. A Teach.), Cert. (AQ, CIS), Dip. (DET), B.Mus., (PBD)
Kilcup, Martha, Cert. (Prof. A Teach.), BA, B.Ed., M.Ed.
Kuzak, Kim, Cert. (Prof. A Teach), M.A., B.A., B.Ed.
Rohs, Tammy, FCP, Cert. (Prof. A Teach.), B.Ed.
Rothwell, Carlie, Cert. (Prof. A Teach.), B.Ed.
Ryan, Jennifer, Cert. (Prof. A Teach.), BA, B.Ed.
Senterre, Danette, Cert. (Prof. A Teach.), B.Sc, B.Ed., M.Ed.
Udey, Wayne, Cert. (Prof. A Teach.), B.Ed.
Vandale, Dustin, FCP, Cert. (Prof. A Teach.), B.Ed.

LINC (Language Instruction for Newcomers to Canada)

Blacklock, Tony, BGS – Academic Chair

Saskatoon Campus
Orlac, Emel, Cert. (CELTA, TESL), BA – Program Head
Appleyard, Paige, Cert. (TESL), B.Ed.
Beach, Sean, B.Ed.
Budden, Larry, Cert. (Prof. A Teach.), FCP, B.Ed.
Carlson, Shantelle, B.Ed., BA
Colton, Lynda, B.Ed.
Elliot, Bridget, BA, CERTESL, Stage 3 LearnIT2Teach
Ferguson, Louise, Cert. (TESL), BFA, B.Ed. in Adult Education (with Distinction), Stage 4 LearnIT2Teach
Gareau, Dianne, Cert. (TESL), BA, B.Ed.
Graham, Julie, Cert. (TESL), BA
Halina, Karen, B.Ed.
Handford, Elizabeth, Dip. Education (English and ESL), Dip. (d'Etude en Langue Francaise), BA Canadian Studies
Hiebert, Jessica, Cert. (TESL), BA
Holtslander, Mayah, Cert. (TESL), BA, MA
Huq, Guy, Cert. (TESOL), BA
Jelisavac-Keindel, Sanja, Cert. (TESL), BA
Knudsen, Bonnie, Cert. (Prof. A Teach.), B.Ed.
Konkin, Della, B.Ed., BA, M.Ed.
Kosowska, Dominika, BA, MA
Krug, Barrie L., Cert. (TESOL), BA (Hons.)
La Saga, Lynn, B.Ed.
Laverdiere, Rachel, Cert. (TESL), Cert. (Creative Writing) BA, B.Ed., Stage 3 LearnIT2Teach
Ledgingham, Greg, BA, B.Ed., Cert. (CELTA)
Loran, Jeanine Marie, Cert. (TESL), B.Ed.
Masood, Mario, BSW, BA, CSC, BCO, DFC
Mukura S. Zoe, LTIL, CLBPT, CLBLPT, TOWES, OCEL, Dip. PR, BA
Muzika, Sonja, BA, B.Ed., MA
Neves, Mariana, Cert. (CLBA, CELBAN), Inter-Prov. Jny. (Con. Fin.), BA (Adv.), B.Ed., B.Sc
Nunes, Eduina, Cert. (CLBA, Prof. A Teach.), B.Ed.
O’Grady, Victoria, Cert. (TESL), Post-Cert (CLBA), BA
Schindel, Carey, BA, Cert. (CELTA)
Schneider, Dianne, Cert. (Ed. Assist., Cosm.), Inter-Prov. Jny. (Cosm.)
Shuttleworth, Charlene, Cert. (TEFL, TESL), B.Ed.

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Saskatchewan Polytechnic Governance, Administration and Faculty

Saskatchewan Polytechnic Schools

School of Health Sciences

Addictions Counselling
Larson, Laureen, RN, BScN, BV/T Ed, MHRD, PMP
– Academic Chair

Prince Albert Campus
Robinson, Barbara, Cert. (Prof. A Teach.), B.Ed., B.M.Sc., ICADC, CCAC, CCCS – Program Head
Friesen, Joy, Dip. (Chem. Dep.), BA, CCAC
Lambiris, Richelle, Dip. (Chem. Dep.), BA, CCAC

Thiermann, Rhonda, Dip. (Addictions Counselling), B.Sc., CCAC

Continuing Care Assistant
Howe, Billy-Jo, RN, BScN, MAEd – Interim Academic Chair

Saskatoon Campus
Wirth, Catharine, FCP, RN, BSN – Program Head
Bitz, Laurie, RN
Poole, Gwyn, RN, BSN
Schinmann, Heather, RN, BScN, OHN
White, Sarah, RN, BScN

Regina Campus
Treble, Wendy RPN, BAET – Program Head
Earshall, Theresa, RN
Mayer, Paula, RN
Roemer, Joyce, RPN, BPN

Prince Albert Campus
Osteneck, Dr. Ursula, RN, BN, B.(V/T.Ed.), M.Ed., PhD – Program Head
Clark, Lois, BScN
Dalshaug-Wilton, Valerie, RN
San Juan, Maricel, RN, Adv. Cert. Perioperative Nursing

Dental Assisting
Ahlquist, Elijah (Eli), RN, BScN, MPA, EdD – Academic Chair

Regina Campus
Woynarski, Sharman, FCP, RDH, B.Sc. – Program Head
Constantinides, Elizabeth, B.Sc., B.Sc. (DENT), MHRD, DMD
Edwards, Diane, Cert. (V/T.Ed.), RDA
Evanochko, Lacey, S.T.
Gottselig, Patricia, Cert (Adult Ed.), FCP, RDH, S.T.
Hannah, Karen, Cert. (V/T.Ed.), RDA
Hansen, Deb, RDA
Koshman, Sherrie, RDA
Lobb, Nina, Cert. (Adult Ed.), FCP, RDH
Ludwig, Yvette, Cert. (Adult Ed.), FCP, BAAE, RDH, S.T.
Lynes, Stacey, BA, RDA
McKay Ganshorn, Robin, Cert. (Bus.), FCP, BBA, MAED, RDA
(on leave)
Scarfe, Brenda, MHRD, DMD
Stevenson, Shannon, Cert (Adult Ed.), RDA
Topliss, Dana, Cert. (Adult Ed.), FCP, RDA
Wright, Catherine, Cert. (Adult Ed.), FCP, RDA, RDH

Dental Hygiene
Ahlquist, Elijah (Eli), RN, BScN, MPA, EdD – Academic Chair

Regina Campus
Woynarski, Sharman, FCP, RDH, B.Sc. – Program Head
Anderson Doll, Deidra, RDH, RDA (on leave)
Buzash, Irene, B.(V/T.Ed.), RDH
Constantinides, Elizabeth, B.Sc., B.Sc. (DENT), MHRD, DMD
Johnson, Lynn, Dip. (DT), B.Ed., RDH
Lefebvre, Dean, CAET, B.Sc., RDH
Scarfe, Brenda, MHRD, DMD
Springinatic, Tanya, RDH

Sask Polytech Calendar 2019-2020 | 21

Register online at saskpolytech.ca or call 1-866-467-4278
Health Information Management
Larson, Laureen, RN, BScN, BV/T Ed., MHRD, PMP – Academic Chair

Regina Campus
Fournier, Tara, CHIM, FCP, CAET, CHRD, Dip. (HIS), BAET – Program Head
Knight, Lori, CHIM, Dip. (HRA)
Ostapovich, Ida, CHIM, FCP, Cert. (HRT), Dip. (HIS)
Waldner, Maria, CHIM, Dip. (HRA)

Medical Diagnostics (Combined Laboratory & X-Ray Technology, Cytotechnology, Medical Laboratory Assistant, Medical Laboratory Technology, Medical Radiologic Technology, Phlebotomy)
Chambers-Richards, Tamara, BSc, MPH - Academic Chair

Saskatoon Campus
Mauza, Robyn, MLT (Cyto.), CT (ASCP), B.Sc. – Program Head, Medical Laboratory Assistant, Phlebotomy
Mutch, Susan, RTR, B.Sc. (Biol.), B.Sc. (MRS) – Program Head, Combined Laboratory & X-Ray Technology, Medical Radiologic Technology
Thompson, Jodi, CAET, FCP, CHRD, MLT, BAET – Program Head, Medical Laboratory Technology, Cytotechnology

Bemdt, Tera, CAET, FCP, RTR
Brown, Tammy, RTR, CTC, BHsc
Carani, Loredana, CAET, FCP, MLT, B.Sc.
Clark, Kerry, RTR
Digney, Roxanne, CAET, MLT, BMLS
Fisher, Pamela, CAET, FCP, RTR
Fraser, Diane, FCP, RTR
Friesen, Rebecca, RTR
Gaucher, Alice, MLT (Cyto.), B.Sc.
Gudmundson, Eileen, MLT
Hanson, Gayle, CAET, FCP, MLT
Hensley, Veronica, CLXT, RTR
Hrdy, Melanie, FCP, MLT
Hupaelo, Tara, CAET, FCP, CLXT, MLT
Jacobson, Kendra, CLXT, MLT
Jennett, Steven, RTR
Kappel, Linda, CAET, FCP, MLT
Kee, Chantelle, FCP, MLT, B.Ed.
Koob, Tricia, MLT, B.Sc. (MLT) – Project Coordinator
Kubik, Tamara, CAET, FCP, RTR, B.Sc. (Hons.)
McClement, Melissa, FCP, MLT, BMLS
McFie, Linda, RTR
Misskey, Shauna, MLT
Oliynyk, Dan, RTR
Pilon, Kerrie, FCP, CLXT, RTR, B.Sc. (on leave)
Ruskin, Rob, MLT, MMSc.
Sailer, Nicola, CAET, FCP, MLT (Cyto.), CT (ASCP), B.Sc., CMIA
Schapansky, Charlene, CAET, FCP, MLT
Short, Christine, FCP, CLXT, RTR, RTMR, B.Sc.

Sielski, Madison, MLT
Stroven, Rachael, FCP, MLT, B.Sc.
Trask, Brenda, CAET, FCP, MLT
Traves, Joan, CAEC, FCP, MLT, B.Sc. (MLT)
Van Eyck, Jessica, BA, MLT
Verbeke, Pat, BA (Adv), MLT
Walbaum, Kendra, MLA, MRT
Walker, Tracy, CAET, FCP, CLXT, RTR
Weber-Gowans, Susan, FCP, MLT (Cyto.)
Wisner, Owen, FCP, RTR, RTMR, B.Sc.
Zetariuk (Pilon), Kerrie, FCP, CLXT, RTR, B.Sc.
Zoerb, Rachelle, MLT

Mental Health and Addictions Worker
Larson, Laureen, RN, BScN, BV/T Ed., MHRD, PMP – Academic Chair

Prince Albert Campus
Robinson, Barbara, Cert. (Prof. A Teach.), B.Ed., B.M.Sc., ICADC, CCAC, CCCS – Program Head
Friesen, Joy, Dip. (Chem. Dep.), BA, CCAC
Lambiris, Richelle, Dip. (Chem. Dep.), BA, CCAC
Thiemann, Rhonda, Dip. (Addictions Counselling), B.Sc., CCAC

Paramedic Programs
Hastings, Terry, ACP – Academic Chair

Saskatoon Campus
Dunn, Noel, ACP, FCP – Program Head
Brecht, Derek, ACP
Fenner, Robert, ACP, FCP
Johnston, Kim, ACP
McGurk, Matt, ACP, MA, CHE
Moss, Joanne, ACP, FCP, CP
Rousson, Trent, ACP
Schriemer, Jarrod, ACP
Smith, Rick, ICP
Van Stone, Mike, ACP

Regina Campus
Boechler, Lindsey, ACP – Research Chair
Koch, Shannon, CCP – Program Head
Erickson, Sarah, ACP
Giesbrecht, Colin, ACP
Hazzard, Brandy, ACP, BHSc, B.Ed.
Hengstler, Mike, ACP
Hodgins, Jeremy, ACP
Karapita, Jolene, ACP
Lund, Sheldon, ACP
Moore, Robert, FCP, ACP
Munn, Christopher, FCP, ACP
Robertson, Macee, ACP
Schmidt, Amy, ACP

Pharmacy Technician
Hastings, Terry, ACP – Academic Chair

Saskatoon Campus
Mack-Klinger, Sue, FCP, BSP, B.Sc. – Program Head
Brenner, Janice, BSP, M.Sc.
Chan, Louisa, BSP, B.Sc.
Lewis, Corri, BSP
Walker, Cheryl, BSP

Therapeutic Recreation
Howe, Billy-Jo, RN, BScN, MAEd. – Academic Chair

Saskatoon Campus
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Martin, Linda, FCP, Dip. (Rec. Tech.), B.R.S.
Robins, Anne, FCP, BPAS

Veterinary Technology
Hastings, Terry, ACP – Academic Chair

Saskatoon Campus
Tsang, Cemaine, B.Sc., M.Sc., DMW, PhD – Program Head
Mamer, Jamie, RVT, Dip. (Vet. Tech.), BSA
Naylor, Jonathan, BSc, DVM, PhD, DACVIM, DACVN
Ruf, Bernice, RVT, FCP, Dip. (Vet. Tech.)
Thiessen, Susan, RVT, Dip. (VCet. Tech., Biotech.), B.Sc.
Uchacz, Tina, B.Sc., M.Sc.

School of Human Services and Community Safety
Aboriginal Police Preparation
Desjardins, Faye, B.Ed., M.Ed. – Academic Chair

Prince Albert Campus
Fleury, Terrance – Program Head
Glasscock, Bev

Saskatoon Campus
Fleury, Terrance – Program Head
Harmon, Kirby
Loran, Robert

Regina Campus
Fleury, Terrance – Program Head
Dormuth, Marlene
Pratt, James

Correctional Studies
Desjardins, Faye, B.Ed., M.Ed. – Academic Chair

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Hemsworth, Angus
Krawec, Kevin - B.Ed., BA, FCP
McLeod, Keith
Rancourt, Les, Dip (Correctional Studies), BAACS
Rudd, Dawn, Dip (Correctional Studies)
Zimmer, Sue, FCP

Disability Support Worker and Youth Care Worker
Holden, Nancy, B.Ed. – Academic Chair

Saskatoon Campus
Polley, Suong, FCP, BSN – Program Head
Allenspach, Alfred, MA
Deneilko, Catherine - BA, BSW, MSW
Hubbard, Don, Dip. (Rec. Tech.), BA (Hons.), BSW, BJ
Mayes, Darrell, BA
Philipchuk, Marilyn, B.Ed., PGD, M.Ed.

Early Childhood Education
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Saskatoon Campus
O’Leary, Lori, Dip. (ECE), BCYC, M.Ed. – Program Head
Loran, Dawn, B.Ed., M.Ed.
McCarr, Sue, BA, M.Ed.

Regina Campus
Coons, Shauna, B.Ed. – Program Head
Molnar, Kay, B.Ed.
Young, Loranne, B.Ed., M.Ed.
Boudreau, Shelley, Cert. (TESL), B.Sc., B.Ed., BA

Prince Albert Campus
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Zwosdesky, Margaret, Dip. (ECE), BA

Educational Assistant
Holden, Nancy, B.Ed. – Academic Chair

Saskatoon Campus
Danino, Janis, B.Ed. – Program Head
Taylor, Lisa, ECE Level 3, B.Ed.

Esthetician, Hairstylist & Nail Technician
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Prince Albert Campus
Benson, Louise, Cert. (B.Admin), Dip (CS)(Hons), Inter-Prov.,
Blue Seal Certified Jny (Hairstylist) – Program Head
Harris, Bonita, Cert. (V/TEd.) Cert. (Esthetician & Nail Tech.),
Jny. (Hairstylist), IP, Jny. (Barber), B.Ed.,
Labrosse, Amber, Jny (Hairstylist)
Spriggs, Aimee – Dip. (B.Admin), Jny. (Hairstylist, Esthetician),
Jny. (Nail Tech.)

Funeral Services
Holden, Nancy, B.Ed. – Academic Chair

Moose Jaw Campus
Chamberlain, Dayna, C.F.S.P. – Program Head
Saskatchewan Polytechnic Governance, Administration and Faculty

Occupational Health and Safety
Desjardins, Faye, B.Ed., M.Ed. – Academic Chair

Saskatoon Campus
Horbach, Nolan, Cert. (OH&S), CRSP – Program Head
Alm, Les, Cert. (OH&S), CRSP, CHSC
Ashby, Jeff, Cert. (OH&S), CRSP
Legare, Martine, Cert. (OH&S), CRSP, ROHT
McVicar, Lois, App. Cert. (OH&S)

School of Nursing
Bachelor of Psychiatric Nursing (Degree Completion Programs)
Larson, Laureen, RN, BScN, B.(V/T.Ed.), MHRD, PMP – Academic Chair
White, Kathy, RPN, B.(V/T.Ed.), M.(V/T.Ed.) – Program Head

Regina Campus
Bennett, Lacey, RPN, BA (Psych)
Bruce-Miller, Diana, RPN, BV/Ted, BSN
Gettle, Denise, RPN, RN, BN, MHS
Graham, Michelle, RPN, BPN
Hipfner, Carol, RPN (Adv), Cert. (V/T.Ed.), BScPN, MHS
Dellina Hodson, RPN (Adv), BHS
Hoffart, Caroline, RPN, B.Ed., MHRD
Howell, Susan, RN, BScN, M.A.Ed.
Killoran, Jamie, RPN, BA
Lee, Daniel, RPN, BA-Psych (Hons)
Louiseize, Jamie, RPN, BSN
Mescue, Joacline, RPN, BSc (Hons), BSC, BIT
Nelson, Tammy, RPN, BSW, MSW
Schigol, Marilyn, RN, BA, M.Ed.
Thomson, Jill, RPN, RN, BScN, M.A.Ed.

Collaborative Nurse Practitioner Program
Chris Barlow, RN, BSN, MN – Academic Chair
Verville, Francoise (Frankie), RN (NP), MN AGD – Program Head

Regina Campus
Duff, Elsie, RN, NP, BScN, M.Ed., PhD
Miller, Lynn, DNP, NP
Stephenson, Brittany, RN (NP), BScN, MN, CON (C) (on leave)

Critical Care Nursing
Ahlquist, Elijah (El), RN, BScN, MPA, EdD – Academic Chair
Essien, Delasi (Del), RN, BScN, MN – Program Head
Dingle, Courtney, RN, BScN, MN (NP)
Spencer, Erin, BA, BSc, BSN, CCRN
Thiessen, Natalie, BSN (on leave)

Diabetes Education for Health Care Providers & Professionals
Ahlquist, Elijah (El), RN, BScN, MPA – Academic Chair
Essien, Delasi (Del), RN, BScN, MN – Program Head

Prince Albert Campus
Cochrane, Jan, RN, BScN, CDE, M.Ed.(DE)

Emergency Nursing
Ahlquist, Elijah (El), RN, BScN, MPA, EdD – Academic Chair
Lynn Faucher Sinclair, RN, BN, CPN (C), MN – Program Head

Medical Device Reprocessing Technician
Ahlquist, Elijah (El), RN, BScN, MPA, EdD – Academic Chair
Faucher Sinclair, Lyanne, RN, BN, CPN(C), MN – Program Head

Regina Campus
Harrison, Heather, RN, BScN

Nursing Re-entry
Ahlquist, Elijah (El), RN, BScN, MPA, EdD – Academic Chair
Essien, Delasi (Del), RN, BScN, MN – Program Head

Regina Campus
Moore, Kara, RN, BScN

Occupational Health Nursing
Larson, Laureen, RN, BScN, B.(V/T.Ed.), MHRD, PMP – Academic Chair
Faucher, Sinclair, Lyanne, RN, BN, CPN (C), MN

Orientation to Nursing in Canada for Internationally Educated Nurses
Ahlquist, Elijah (El), RN, BScN, MPA, EdD – Academic Chair
Essien, Delasi (Del), RN, BScN, MN – Program Head

Regina Campus
Esquerra, Arnold, RN (NP), BScN, MN
Langley, Stephanie, RN, BScN
Moore, Kara, RN, BScN
Moraleja, Ferdinand, RN, BSN, MD
Nganzo, Mariam, RN, BS, BScN

Perioperative Nursing – LPN & RN
Ahlquist, Elijah (El), RN, BScN, MPA, EdD – Academic Chair
Faucher Sinclair, Lyanne, RN, BN, CPN(C), MN – Program Head

Regina Campus
Farley, Margaret, RN, BScN, CPN(C)
Harrison, Heather, RN, BScN
Howard, Eyke, RN
McKerricher, Leah, RN, BScN
Omoth, Barbara, RN

Saskatoon Campus
Pooni, Bhavna, RN, SSN
Ratcliffe, Chelsy, RN, BScN
Tricker, Chad, RN, BScN
Saskatchewan Polytechnic Governance, Administration and Faculty

**Practical Nursing**
Howe, Billy-Jo, RN, BScN, M.A.Ed. – Academic Chair

**Saskatoon 4th Ave Centre**
Solar, Jessica, RN, BScN, MN – Program Head
Anweiler, Nancy, RN, BScN
Breker, Michelle, RN, BScN
Brown, Kimberly, RN, BScN, B.Sc. (Kin)
Chevi, Alison, RN, BScN
Denton, Mary Ann, RN(NP), BSN, BSc, CHFN
Fischer, Elma, RN, BScN, ENCC
Kolback, Noreen, RN, BScN
Maksymiuk, Elaine, RN, BScN
Patenaude, Sara, RN, BScN, MOT
Turton, Rae, RN, BN

**Regina Campus**
Rudolph, Sherri, RN, BN, BN, MN – Program Head
Biasotto, Daria, RN, BScN
Crocker, Tracy, RN, BScN
Dixon, Wendy, RN, MA
Duchscher, Chelsea, RN, BScN
Fraser, Marla, RN, BSN
Gold, Heather, RN, BScN, M.A.Ed.
Lamontagne, Shanda, RN, BScN
Mann, Mary Ellen, BN, RN
Nelson, Heather, RN, BScN
Santo, Matt, RN, BSN
Thibault, Loreli, RN, BScN
Unique, Rhonda, RN, BScN
White, Twana, RN, BN
Ziefflie, Bev, RN, BScN, M.A.Ed.

**Prince Albert Campus**
Ullyott, Karen, RN, BScN, BN, MN – Program Head
Beachesne, Stephanie, RN, BScN
Emmerson, Angela, RN, BScN
Kotyk, Jolene, RN, BSN
Neuman, Elaine, RN, BSN
Schrader, Joelyn, RN, BSN
Smith, Yvonne, RN, BScN, MALAT
Venn, Lisa, RN, BSN

**Psychiatric Nursing**
Larson, Laureen, RN, BScN, B.(V.T.Ed.), MHRD, PMP
– Academic Chair

**Regina Campus**
White, Kathy, RPN, B.(V.T.Ed.), M.(V.T.Ed.) – Program Head
Bennett, Lacey, RPN, BA (Psych)
Bruce-Miller, Diana, RPN, B.(V.T.Ed.), BSN
Gettle, Denise, RPN, RN, BN, MHS
Graham, Michelle, RPN, BPN
Hipfnr, Carol, RPN, Cert. (V.T.Ed.), BHS, ScP, MHS
Hodson, Della, RPN(Adv), BHS
Hoffart, Caroline, RPN, B.Ed., MHRD
Howell, Susan, RN, BScN, M.A.Ed.
Killoran, Jamie, RPN, BA
Lee, Daniel, RPN, BA (Hons.)
Mescue, Joaceline, RPN, BSc-Hon, BSc, BIT
Nelson, Tammy, RPN, BSW, MSW
Schigol, Marilyn, RN, BA, M.Ed.
Thomson, Jill, RPN, RN, BScN, M.A.Ed.

**Prince Albert Campus**
Louiseize, Jamie, RPN, BScN

**Saskatchewan Collaborative Bachelor of Science in Nursing**
Barlow, Chris, RN, BScN, MN – Academic Chair, Saskatoon Campus

**Saskatoon Campus**
Kobussen, Robyn, RN, BScN, MN
Beggs, Dana, RN, BScN, MN
Betker, Amanda, RN, BScN, MN
Bouskill, Dana, RN, BScN
Brannen, Mary, RN, BScN, MN
Brodie, Shane, RN, BA, MSN
Bryden, Taylor, RN, BScN
Disiewich, Kathy, RN, BSN, BSc, CHFN
Dupuis, Jenifer, RN, BScN, MN
Dykhuizen, Melissa, RN, BScN, MN
Eagle, Tarah, RN, BScN, MN
Farthing, Pamela, RN, BA, M.Sc.
Fenske, Patricia (Patty), RN, BScN, MN
Gronvold, Darren, RN, BScN, MN
Hall, Pamela, RN, BScN, MN
Helt, Kristine, RN, BScN, MN
Hooyenga, Sarah, RN, BScN, MN
Hubbard Murdoch, Natasha, RN, BScN, CMSN (C), MN
Iverson, Shannon, RN, BScN, MN
Kaminski, Roxanna, RN, BScN, MN
Kihn, Kim, RN, BScN, MN
Kiryk, Sheila, RN, BScN, MN
Klebeck, Signy, RN, BScN, MN
Kreuger-Jones, Judy, RN, BScN, MN
Lloyd-Vossen, Jan, RN, BScN, MN
Luhning, Shelly, RN, BScN, MN, ENC (c)
McCaig-Beattie, Tracey, RN, BScN, MN
McCrystal, Sheri, RN, BScN, M.Ed.
McDonald, Meghan, RN, RN
McDonald, Sherry, RN, BScN, MPS
McFarlane-Smood, Diana, RN, BScN, MN
Mills, Brenda, RN, BScN, MN
Montaque, Kim, RN, BScN, MN
Morgan, Sybil, RN, BScN, MN
Orr, Karrie, RPN, BA, MC, CCC
Oscvirk, Cybelle, RPN, RN, BN, MN
Pavlov, Michelle, RN, BScN, MN
Peet, Janelle, RPN, BN
Pongracz, Beverly, RN, BScN, MN
Salter, Alice, RN, BScN, MN
Scott Barss, Karen, RPN, B.H.Sc., MA
Shanks, Deb, RN, BScN, MN
Sherban, Cindy, RPN, RN, BScN, M.Ad.Ed.
Sorochuk, Gaylene, RN, BScN, MN
Tchorzewski, Sindie, RN, BScN, MN
Thiessen, Kim, RN, BScN, MN
Waters, Stacey, RN, BScN, MN
Werezak, Leonie, RN, BScN, MN
White, Sue-Ellen, RN, BScN
Winterhalt, Dawn, RN, BScN, GNC(C), MS

Regina Campus
Harris, Kandis, RN, BScN – Academic Chair, Regina Campus
Moyer, Katarzyna (Kat), RN, BSN, MSN – Program Head
Abu Anza, Laurene, RN, BN, MHS
Abudu, Eunice, RN, BScN
Ahlquist, Angela, RN, BScN, MA
Allen, Carrie, RN, BSN, MN
Banks, Deidra, RN, BN
Barbour, Kristin, RN, BScN, MN
Burrell, Terri, RN, BScN, MSN
Downton, Michelle, RN, BScN, CNeoN(C)™
Duchcherer, Crystal, RN, BScN, MN
Edwards, Penny, RN, BScN
Flaman, Sharon, RN, BN, MAEd.
Fleming, Gina, RN, BN, MN
Found, Jodi, RN, BSN, MN
Fox-Smith, Sarah, RN, BScN, CPHON
Gingoyon, Beth, RN, BSc., M.Sc. HPE
Graessli Wise, Dea, RN, BSN, MEAE, CIC
Grand, Stephanie, RN, BScN
Gretench, Monica, RN, BScN, M.Admin.
Haas, Erin, RN, BScN
Hall, Allison, RN, BScN, MN
Hanson, Shannon, RN, BScN (on leave)
Harrison, Kim, RPN, RN, BA, BSN, M.Ed.
Holden, Amy, RN, BScN
Hope, Kasey, RN, BScN, M.Admin.
Hunter, Stacy, RN, MN
Hunt, Kim, RN, BN
Jamison, Ashley, RN, BScN
Kaur, Tarandeep, RN, BScN
Kostiuk-Linford, Sarah, RN, BScN, MN, EdD
Kozak, Charlene, RN, MSN
Kozusko, Jarrett, RN, BScN
Laczko, Dana, RN, BScN, MN
MacDougall, Liz, RN, BScN, MN, MSnA, CMSN (C)
Manson-Brock, Nori, RN, BScN (on leave)
McIlmoyl, Matt, RN, BScN
McKinley, Lynde, RN, BScN, MN
Needer, Andrea, RN, BScN, M.A.Ed.
Neilson, Kelsie, RN, BScN, BCCN, M.A.Ed.
Palandri, Loreli, RN, BScN
Patrick, Jan, RN, BScN, MACP
Perkin, Amanda, RN, BScN, MN
Poole, Sarah, RN, Scn, MScn (Forensic Nursing)
Raisbeck, Bonnie, RN, BScN, MN
Reimche, Ruthanne, RN, MN, CCn(C)
Richaud, Allison, BScn
Schooler, Laurie, RN, BScn
Sebastian, Liza, RN, BScN, MN
Spencer, Erin, B.A., B.Sc., BSN, CCRN
Spring, Gillian, RN, BScn
Suehwold, Bernice, RN, BN, MSN
Tancrède, Lionel, RN, BScN, MN
Taylor, Sarah, BN
Todd, Sara, BScn
Vogel, Vanessa, RN, BScN
Wagner, Lorraine, RN, BScN, MAEd.
Weisbrot, Lorna, RN, BScN, MA-IS

Wiebe, Mackenzie, BN, BScN, BBA (on leave)

Saskatchewan Polytechnic Indigenous Nursing

Saskatoon Campus
Suzanne Toombs, RN, BN

Regina Campus
Riehl, Greg, RN, BScN, MA

Internationaly Educated Nurses (IEN)
Assessment Centre
Ahlquist, Elijah (Eli), RN, BScN, MPA, EdD – Academic Chair
Essien, Delasi (Del), RN, BScN, MN – Program Head

Regina Campus
Moraleja, Ferdinand, RN, BSN, MD
Morales, Don, RN, BSN

School of Business
Craig, Kristen, FCP, Dip. (CIS, Acct.), CPA, CMA – Academic Chair, Business Diploma and Post-Graduate programs
Kaur, Jasleen, B.Eng., MBA – Academic Chair, Business Certificate programs

Accountancy / Management Post-Graduate

Moose Jaw Campus
Chute, Graham, B.Comm., CPA, CA – Acting Program Head
Bayly, Aaron, Dip. (Bus. Admin.), B. Mgmt., CPA, CMA
Bodnarchuk, Adrienne, BAccs, MS, CPA, CGA
Burton, Greg, Dip. (Acct.), B.Comm. (Hons.), CPA, CGA
Eros, Chad, CPA, CMA, BBA, BAR
Fox, Jana, Dip. (Acct.), CIA, CPA, CMA
Goetz, Linda, Dip. (Acct.), CPA, CMA
MacDonald, Brad, B.Comm., MBA, CPA, CA
Newis, Bob, B.Admin, B.A, MBA, CPA, CGA
Sisk, Rhea, BCom, CPA
Stykel, Lynda, CPA, CMA

Business

Moose Jaw Campus
McMahon, Erin, FCP, BA (CIP) – Program Head
Beaubien, Mike, Dip. (Admin.), B.Admin.
Bangboyce, Oyebisi, BSc, MBA
Fritzke, Amber, B. Comm.
Pohl, Sherrie, FCP, Cert. (Std. A. Teach., HHA)
Swalm, Karen, Cert. (Sec. Sci.), B.Ed., B.Mgmt.
Verhelst, Twyla, B.Com, FCP
Zylak Hill, Cecilia, B. Admin, B. Ed., PGD, MHRM

Saskatoon Campus
MacGregor, John, B. Admin., MBA – Program Head
Saskatchewan Polytechnic Governance, Administration and Faculty

Boots, Donna, BA, MBA
Doell, Wendy, BA (Double Hons.), MA, MBA
Tessmer, Lesley, BA, B.Ed., M.Ed.
Weeks, Dana, BA, B.Comm., CMA
White, Amanda, B.Admin, MPAcc, CPA, CA

Prince Albert Campus
Bomphray, Erin, B.Ed. – Program Head
Ridley, Brian, B.Comm., CA, CMA

Financial Services / Human Resources / Insurance / Marketing / Management

Moose Jaw Campus
Forer, Morai, Dip. (Admin. Assist.), B.Ed., M.Ed. – Program Head
Bloomsteyn, John, FCIP, BA
Chow, Marla, B.Comm.
Czarnecki, Wes, B.Admin.
Favel, Paul, B. Admin.
Hudson, Hugh, B. Comm.
Junek, Denise, MBA
Stirton, Holly, B.Comm.
Stuermer, Gail, B.Admin., CPA, CMA
Payant, Genelle, B. Admin, CPHR
Khan, Muhammad, B. Eng, MS, MBA, C.Eng.

Management / Supply Chain Management

Moose Jaw Campus
Kirzinger, Stephen, BBA, MHK – Program Head
Downey, Kirsten, B. Admin., MBA
Forrest, Tyler, Dip. (Admin.), BA, B.Ed., M.A.
Koleoso, Anthony, MBA, C.Mgr
Kozachuk, Allan, B.Admin., MA
Sherief, Mohamed, BBA, MPA
Gujjarappa Thimmaiah, Manjula, BE, MBA, FAIA, PhD

Office Administration

Regina Campus
Bray, Al, Dip. (HR), B.Ed. – Program Head
Braaten, Dana, B.Ed.
Budd, Chelsa, Cert. (Prof. A Teach.), B.Bus., B.Ed.
Chun, Joleen, Cert. (Bus.) BA, M.A.Ed.
Gelsinger, Rick, B.Ed., M.(V/T.Ed.)
Martin, Janet, Cert. (Prof. A Teach.), B.Ed.
Renwick, Chantelle, Graduate Dip. (Teach.), BA
Thomas, Jennifer, Cert. (Prof. A Teach.), B.Sc., B.Ed.
Vindevoghel, Lana, Cert. (OE, COA, MT), B.(V/T.Ed.)

Prince Albert Campus
Bomphray, Erin, B.Ed. – Program Head
Petruk, Bev, Dip. (Data Proc.)

School of Construction

Giesbrecht, Lance, RSE (Carp.), Dip. (PIDP), MBA
– Academic Chair
Youzwa, Gerry, BA, Program Innovation & Development
– Academic Chair

Architectural Technologies

Moose Jaw Campus
Deans, Angela, Cert. (Adult Ed.), Dip. (Arch.), A.Sc.T.
– Program Head
Forbes, Reg, Jny. (Carp.), Dip. (Arch.), A.Sc.T.
Ingold, Richard, Dip. (Arch.), NCIDQ, IDAS
Owens, Kenda, Dip. (Int. Design), NCIDQ, IDAS
Stutt, Rod, B.Arch., MCP, PhD, SAA

Carpentry

Saskatoon/Prince Albert Campus
Hooyenga, Ryan, RSE (Carp.) – Program Head
Batycki, Murray, RSE (Carp.)
Joinson, Randy, RSE (Carp.), Cert. (V/T.Ed.)
Lawrence, Steve, RSE (Carp.), Jny. (Carp.), Cert. (V/T.Ed.), B.Sc.
Lemon, Brandon, RSE (Bkrkr.)
Mostoway, Kelvin, RSE (Carp.), Cert. (V/T.Ed.)
Porter, Eugene, RSE (Carp.)
Schulz, Horst, RSE (Carp.), Cert. (Prof. A Teach., V/T.Ed.), B.Ed.
St. Germaime, Robb, RSE (Carp.)
Wells, Connie, RSE (Carp.)

Moose Jaw/Regina Campus
Mohr, Cory, RSE (Carp., CCL) Cert. (Leadership Skills, Blue Seal) – Program Head

Regina Campus
Yee, Doug, RSE (Carp.)
Construction Electrician (CE)

Moose Jaw / Regina Campus
Galbraith, Jeff, RSE (CE), CAET, JD – Program Head
Austin, Jacques, RSE (CE), Cert. (V/T.Ed.), B.Ed.
Beaurivage, Claude, RSE (CE), Cert. (V/T.Ed.), B.Ed.
Boyko, Darren, RSE (CE)
Diacon, Michael, RSE (CE)
Folbar, Preston, RSE (CE, GAS, ICT, RACM), Power Eng. (3rd)
Gustilov, Blake, RSE (CE, GAS, RACM), Power Eng. (5th)
Mack, Tim, RSE (CE, ICT), Power Eng. (2nd)
O'Connell, Dan, RSE (CE)
Omay, John, RSE (CE, ICT), Power Eng. (4th), Eng.), A.Sc.T.
Smith, Earl, RSE (CE)
Swift, Mike, RSE (CE)
Vieser, Gary, RSE (CE)
Vollet, Jay, RSE (CE)
Walker, Norm, RSE (CE)

Prince Albert / Saskatoon Campus
Bell, Greg, RSE (CE) – Program Head
Brown, Kevin, RSE (CE), B.Ed.
Cooper, Doug, RSE (CE), Cert. (Adult Ed.)
Dubray, Dale, RSE (CE)
Ell, Michael, RSE (CE, ICT), Steam Eng. (4th)
Gill, Wayne, RSE (CE)
Grosskleg, Bill, RSE (CE, ICT)
Harding, Gord, RSE (CE)
Kopperud, Clair, RSE (CE, ICT)
Lauinger, Robbin, RSE (CE)
Liebrecht, Kelly, RSE (CE)
McLeod, Rob, RSE (CE), Cert. (V/T.Ed.)
St. Amand, Dwight, RSE (CE, ICT), Dip. (Instr.), B.Ed.
Schultz, Dave, RSE (CE, PM)
Smith, Ed, RSE (CE)
Wheeler, Darren, RSE (CE)

Plumbing/Pipefitting

Saskatoon Campus
Robert (Mike) Andre, RSE (Plumb), Gen Gas, B. Comm.
Armstrong, Garry, RSE (Plumb), Gen. Gas, Cert. (EMT, Limited Power Engineer)
Campbell, Dean, RSE (Plumb, Ref./Ac.), Gen. Gas
Chenard, Julian RSE (Plumb, Steam/Pipe), Gen. Gas, 5th Class Power Engineer
East, Frank, RSE (Plumb), Gen. Gas, Cert (Cross Connection Control)
Groenendyk, Tim, RSE (Plumb, Steam/Pipe), Dom Gas, Med Gas
Halter, Grant, RSE (Plumb), Gen. Gas
Murray, Gerald, GSE (Plumb), Dom. Gas, Cert. (Cross Connection Control)
Schmidt, Vaughn, RSE (Plumb), Gen. Gas, Cert. (Fireman's)
Shular, Jeff, RSE (Plumb), Gen. Gas
Sweeney, Rob, RSE (Steam/Pipe), Gen. Gas

Saskatoon Campus
Blakely, Aubrey (Lee), RSE (Ref. & A/C, Elect.), Cert. (Dom. Gas)
Demmuns, Maury, RSE (SM), Cert. (RHASD) – Program Head
Downing, Matthew, RSE (SM), Cert. (RHGL, RASD, RMVI)
Curtis, Shea, RSE (SM)
Despands, Dale, RSE (SM), Cert. (RMVI)

Regina Campus
Brown, Darrell, RSE (Plumb), Gen. Gas, Cert. (Ref. Eng., 4th)
Class Stationary Steam Eng., Cross Connection Control
Dolha, Shane, RSE (Plumb), Gen. Gas
Haubrich, Vern, RSE (Plumb), Gen. Gas

Refrigeration and Air Conditioning

Saskatoon Campus
Blakely, Aubrey (Lee), RSE (Ref. & A/C, Elect.), Cert. (Dom. Gas)
– Program Head
Duchscher, Don, RSE (Ref. & A/C), Cert. (Dom. Gas)
Urban, Gary, RSE (Ref. & A/C)
Cert. (Dom. Gas)

Sheet Metal

Saskatoon Campus
Demmuns, Maury, RSE (SM), Cert. (RHASD) – Program Head
Downing, Matthew, RSE (SM), Cert. (RHGL, RASD, RMVI)
Curtis, Shea, RSE (SM)
Despands, Dale, RSE (SM), Cert. (RMVI)

School of Hospitality and Tourism

Culinary Arts/Cook/Professional Cooking/Short Order Cooking
Cotton, Derek, Inter-Prov. Jny. (Cook), Cert. (Chef de Cuisine)
– Academic Chair

Saskatoon Campus
Wheeler, Paul, CAET [PT 1], FCP, Inter-Prov. Jny. (Cook), OSJ [PT2] OSB – Program Head
Beaule, Michael Inter-Prov. Jny. (Cook), Cert. (Chef de Cuisine)
Dahl, Andrew, Inter-Prov. Jny. (Cook)
Driver, Steve, Jny. (Cook)
Nelson, Everett, Inter-Prov. Jny. (Cook)
Soloski, Kevin, Inter-Prov. Jny. (Cook), Cert. (Chef de Cuisine, Adult & Cont. Ed.), Applied Degree Culinary Operations
Wishlow, Sheldon, Inter-Prov. Jny. (Cook), Cert. (Adult Ed.), Dip. (Food and Nutrition)

Moose Jaw Campus
Patterson, Wayne, Inter-Prov. Jny. (Cook) – Program Head
Ellis, Morley, Prov. Jny. (Cook), Dip. (Food & Nutr. Mgmt.), Cert. (Retail Meat Cutting)

Prince Albert Campus
Mardell, Kevin, Inter-Prov. Jny. (Cook) – Program Head
Cyr, Don, Inter-Prov. Jny. (Cook), Dip. (Food & Nutr. Mgmt.)
Dahljo, Kevin, Inter-Prov. Jny. (Cook)
Kreig, Joe, Inter-Prov. Jny. (Cook)
Stanford, Ben, Inter-Prov. Jny. (Cook, Baker), Cert. (Chef de Cuisine)
Saskatchewan Polytechnic Governance, Administration and Faculty

**Food & Nutrition Management**
Cotton, Derek, Inter-Prov. Jny. (Cook), Cert. (Chef de Cuisine)
   – Academic Chair

**Saskatoon Campus**
Dahl, Cheryl, FCP, B.Sc., RD – Program Head
Boychuk, Jordan, Dip. (Food and Nutrition Management)
Lam, Melissa, B. Sc., RD
McFarland, Leanne, B.Sc., RD, BSP
Straker, Jason, Inter-Prov. Jny. (Cook), Cert. (Chef du Cuisine)

**Hotel and Restaurant Management**
Cotton, Derek, Inter-Prov. Jny. (Cook), Cert. (Chef de Cuisine)
   – Academic Chair

**Saskatoon Campus**
Hartsook, Dean – BA Advanced (Economics), Dip. (Hotel and Restaurant Management) – Program Head
Cole, Richard, Dip. (Culinary Arts), Inter-prov. Jny. (Cook)
Neufeld, Kendall, Dip. (Hotel Admin.)
Matyczuk, Sheldene, Jny. (Food and Beverage Person), WSE (Wine Spirits Education Trust) Lvl 2, Dip. (Golf Course Mgmt.)

**Recreation and Community Development**
Cotton, Derek, Inter-Prov. Jny. (Cook), Cert. (Chef de Cuisine)
   – Academic Chair

**Saskatoon Campus**
Clarke, Vickie, Cert. (Tour Director & Heritage Interpreter), Dip. (Rec. Tech.), BA, MA – Program Head
Davidson, Josh, Dip. (Rec. & Tourism), Dip. (Bus. Admin.), B.Sc

**School of Information and Communications Technology**
Walsh, Bill, B.Ed., Cert. (V/T.), C.Tech. – Academic Chair

**Business Information Systems**
Moose Jaw Campus
Vacant. – Program Head
Barclay, Michael, Dip. (BIS), ISP
Osborne, Gavin, Dip. (IT), BA (Hons.), M.Sc.
Shiers, Brett, B.Sc. (Hons)

**Computer Networking Technician**
Regina Campus
Armbruster, Heath, CFOT, AScT – Program Head
Bubyn, Jeff, CFOT, Inter-Prov. Jny. (Electronics)
Kaur, Sukhbir, CCNA, A+, CFOT, B.Tech.
Lacell, Jeff, CA-Level 2, A+, CFOT-1, C.Tech.


**Computer Systems Technology**

**Saskatoon Campus**
New, Ron, Dip. (CST), BA, CNA, MCSE – Program Head
Barrie, Bryce, B.Sc., M.Sc.
Benson, Ben, FCP, B.Sc. (Comp. Sci.), B.Sc. (Physics), Boczoler, Kelvin, Dip. (Agriculture), B.Sc. (Comp. Sci. Hons.)
Caron, Rick, FCP, Dip. (Civil Eng., CAD/CAM, Renew. Res.)
Kaban, Coralee, FCP, Dip. (CST)
Lahoda, Wade, BA, B.Sc.
Miller, Rob, CCiS, Cert. (Prof. A Teach.), B.Ed.
Onishenko, Donovan, Dip. (Electronics), MCP, A+, B.Sc.
Peckham, Terry, BA (Adv.), M.Sc., PhD
Staples, Grace, B.Sc.

**Graphic Communications & Interactive Design and Technology**

**Regina Campus**
Karmazyn, John, BA, M.Ed. – Program Head
Craigie, Heather, Jny. (Printer), Cert. (GAP)
Fay, Shannon, Jny. (Pre-Press), Cert. (GATF Pre-Press), Dip. (GAP)
Harding, Tanis, Cert. (NMC), MAAC
Jasper, Natascha, Jny. (Printer), Cert. (GATF Press), Dip. (GAP)
Peterson, Cody, FCP, Cert. (GATF Pre-Press, CMP Master), Dip. (GAP)
Yashchechen, Shannon, Dip. (GAP, NMC, AP), BFA, BA, MFA

**Library and Information Technology**

**Saskatoon Campus**
Berast, Chasity, Cert. (Learning Disability Specialist), Dip. (Lib. & Info. Tech.), B. Arts – Program Head
Bretell, Cynthia, FCP, Cert. (Prairie Horticultural), B.Ed., PGD (Lib. Sc.)

**Media Arts Production & Interactive Design and Technology, Digital Graphic Design, Dynamic Web Development, Interactive Media Production, and Website Design & Development**

**Saskatoon Campus**
Mahlberg, Kevin, Dip. (AV) – Program Head
Jonasson, Andrea, PBDDET, Cert. (Prof. A Teach., AQ), B. Mus.
Kowalchuk, Brent, BFA
Nukiforuk, Ross, B.Mus. Mus Ed.
Telecommunications Networking Technician

Regina Campus
Armbuster, Heath, CFOT, AScT – Program Head
Bespalko, Matt, CFOT
Bubyn, Jeff, CFOT, Inter-Prov Jny (Electronics)
Johns, Dennis, B.S.E.E.T, CFOT, AScT, P.Eng.
Rodgers, Aaron, CFOT, CPCT, C.Tech.

School of Mining, Energy and Manufacturing

Bechard, Dan, Dip. Tech. (CADD), AScT – Academic Chair, Engineering Technologies
Herman, Deanna, BA, MA – Academic Chair, Natural Resources Technologies & Co-operative Education
Paul, Grant, Jny. (Mach.) – Academic Chair, Trades and Technologies

Building Systems Technician

Regina Campus
Chalupiak, Dan, Inter-Prov Jny (Electrician) BA, Adult Education (UFV) Faculty Cert Program Certificate in Adult Education and Training (U of R) – Program Head
Anderson, Rick, 1st Class Power Engineer
Shordee, Theo, 1st Class Power Engineer
Ravi Inder Jasser, PhD (Mech. Eng.), C Eng., EIT

CAD/CAM Engineering Technology

Saskatoon Campus
Muench, Tim, BE, M.Sc., P.Eng., CCNA – Program Head
Diakow, Lorne, EMT, Dip. (CAD/CAM), AScT, CCNA
Lipoth, Leon, FCP, B.A.Sc., M.Eng., P.Eng.
Lozinsky, Ken, BE, EIT
Murdoch, Brian, B.A.Sc., M.Sc., P.Eng.

Chemical Technology

Saskatoon Campus
Douglas, Amy, B.Sc., M.Sc. – Program Head
Chau, Thoai (Tony), B.Sc., M.Sc.
Sajna Simon, B.Sc., M.Sc.

Computer Engineering Technology

Moose Jaw Campus
Nanan, Shaun, Dip. (Elect.), B.A.Sc., AScT, P.Eng. – Program Head
Jaradat, Naser, B.Sc., M.Sc., P.Eng
Salooja, Bobby, B.Eng., P.Eng
Skhara, Craig, Dip. (Comp. Eng.), AScT

Electrical Engineering Technology

Moose Jaw Campus
Hillsdon, Michael, RSE Inter-Prov Jny. (ICT), Dip. Tech., C.Tech., B.Tech. – Program Head
Bah, Sulayman, Dip. (Elect.), BA, B.Eng., M.Sc.
Nijhawan, Satindar, B.Sc., M.Sc., P.Eng.
Panigrahi, Sujata, B.Eng. (electrical), M.Sc. (electrical)
Shakya, Shanta, B.Sc., PGD, P.Eng.
Zhang, Xiao, Dip. (Elect.), B.Sc., M.Sc., PhD, AScT

Electronic Systems Engineering Technology & Electronics Technician

Saskatoon Campus
Roslinsky, Chris, Dip. (Ind. Elec.), B.Eng – Program Head
Auser, Jim, Dip. (Ind. Elec.), B.Sc., M.Sc., MBA, P.Eng.
Lasante, Michael, Cert. (Web Design), Dip. (Ind. Elec.), AScT
Schneider, Tim, Cert. (Comp. Sci.), Dip. (Ind. Elec.), AScT

Engineering Design and Drafting Technology

Moose Jaw Campus
Forest, Kaya, Dip. (Water Eng.), B.Sc., M.Sc., P.Chem. – Program Head
Ricafort, Ramon, B.Sc.E., M.Sc., A.Sc.T., EIT
Wingert, Earl, Dip.Tech (CADD), AScT

Geomatics and Surveying Engineering Technology

Moose Jaw Campus
Pelletier, Conway (CJ), Dip. Tech. (CADD, GEO), CGT – Program Head
Lara, Carlos, Dip., B.Sc.
Raouf, Abdul, PhD
Lahamy, Herve, PhD, P.Eng.

Industrial Mechanics

Saskatoon Campus
Lockhart, Billy, RSE, Inter-Prov. Jny. (Ind. Mech./Millwright), City & Guilds (Maint. Mech.–Scotland), Cert. (V/T.Ed.)
Gilchrist, Rob, RSE, Inter-Prov. Jny. (Ind. Mech./Millwright), Cert. (V/T.Ed.)
Cumbers, Richard, RSE, Inter-Prov. Jny. (Ind. Mech./Millwright), Blue Seal, FCP
Dieltschneider, Neil, RSE, Inter-Prov. Jny. (Ind. Mech./Millwright)
Perret, Shaun, RSE. Inter-Prov. Jny. (Ind. Mech./Millwright), B.Ed.
Blue Seal

Register online at saskpolytech.ca or call 1-866-467-4278  Sask Polytech Calendar 2019-2020  30
Saskatchewan Polytechnic Governance, Administration and Faculty

Innovative Manufacturing

Regina Campus
Ursulescu Philip Inter-prov Jny. Machinist – Program head
Drysdale Graeme PhD, P.Eng
Hallemann, Randy, RSE, Inter-Prov. Jny. (Ind. Mech./Millwright).
Wollbaum Evan Inter-prov. Jny. Machinist

Instrumentation Engineering Technology

Moose Jaw Campus
Hillsdon, Michael, Cert. (Instr.), Dip Tech, C.Tech., B.Tech. – Program Head
Mathieson, Jared, D RSE Inter-Prov Jny. (ICT, Dip. Tech. (Instr.), AScT, FCP
Tysdal, Aaron, RSE Inter-Prov Jny. (ICT, Dip. Tech. (Instr.), AScT, FCP
Varghese, Babith, B.Eng., PGD (Project Mgmt.), FCP, EIT White, David, B.Sc., M.Sc.

Mechanical Engineering Technology

Saskatoon Campus
Muench, Tim, BE, M.Sc., P.Eng., CCNA – Program Head
Hehn, Jeff, BE, M.Sc., P. Eng.
Pocock, Thomas, B.Ed., Dipl. (MET)
Labbe, Paul, MBA, B.Sc., Dipl. (MET)

Mining Engineering Technology

Saskatoon Campus
Faris, Danielle, Dip. (Geo. Tech.), FCP – Program Head
Adelakun Adekunle B. Eng, P. Eng

Power Engineering Technology

Saskatoon Campus
Gulka, Lester, Inter-Prov. 2nd Class Power Engineer, Cert. (Ref. Eng.) – Program Head
Bloor, Angela, Inter-Prov. 2nd Class Power Engineer, Cert. (Ref. Eng.)
Knelson, Jim, CET, Inter-Prov. Jny (Ref. & A/C), Dip (Indust. Instrumentation). Power Eng 1st Class
Lansford, Scott, 2nd Class Power Engineer, Cert.
MacDonald, Dennis, 2nd Class Power Engineer, Cert. (Ref. Eng.)
McCannell, Ian, 2nd Class Power Engineer, Cert. (Ref. Eng.)
Sellers, Katherine 2nd Class Power Engineer, Cert. (Ref. Eng.)
Sorowski, Terry, 2nd Class Power Engineer, Cert. (Ref. Eng.)

Welding/Fabricator Welding

Saskatoon Campus
Otteson, Blaine, Inter-Prov. Jny (Welder), AB Jny./SK. Jny., CWB Level 1 Inspector, Dip. (IIW International Welding Specialist)
Abadi, Rick, Inter-Prov. Jny. (Welder) – Program Head
Johnson, Randy, Inter-Prov. Jny. (Welder), CWB Level 1 Inspector
Krieg, Scott, Inter-Prov. Jny. (Welder), CSA Level 1 Welding Inspector, CWB Welding Supervisor & Qualified Welder, ASME Pressure Qualified Welder, Dip. (IIW International Welding Specialist)
Mills, John, FCP, Inter-Prov. Jny. (Welder, Metal Fab.)
Nickel, Ron, Inter-Prov. Jny. (Welder), Jny. (Ind. Mech./Millwright), CWB Level 1 Inspector, Dip. (IIW International Welding Specialist)
Salt, William, Inter-Prov. Jny. (Welder, Steel Fab.), CWB Level 1 Inspector
Schaan, Ian, FCP, Inter-Prov. Jny. (Welder, Fab.)
Yeager, Nathan, FCP, Jny. (Welder, Steel Fab.), CWB Level 1 Inspector

Mechanical Engineering Technology

Saskatoon Campus
Muench, Tim, BE, M.Sc., P.Eng., CCNA – Program Head
Hehn, Jeff, BE, M.Sc., P. Eng.
Pocock, Thomas, B.Ed., Dipl. (MET)
Labbe, Paul, MBA, B.Sc., Dipl. (MET)
Regina Campus
Boos, Douglas, FCP, RSE, Inter-Prov. Jny. (Welder, Steel Fab.)
CWB Level 2 Inspector, Dip. (IIW International Welding Specialist) – Program Head
Buckmeyer, Joseph, RSE, Inter-Prov. Jny. (Welder)
Ceron, Max, RSE, Inter-Prov. Jny. (Welder, Steel Fab.)
Gent, Gord, Inter-Prov. Jny. (Welder), BA, B.Sc. (Hons.)
Hagerty, Steve, RSE, Inter-Prov. Jny. (Welder), CWB Level 1 Inspector
VanDruten, Kevin, RSE, Inter-Prov. Jny. (Welder), CWB Level 1 Inspector
Korchinski, Travis, RSE, Inter-Prov. Jny. (Welder)

Prince Albert Campus
Cloarec, Colin, Inter-Prov. Jny. (Welder), Jny. (Gas & Arc)

Co-operative Education

Moose Jaw Campus
Gruhdziki, Lisa, AScT, Dip. (WTR) – Program Head
Allen, Tamra, FCP, B.Sc.EIT
Kwasnica, Anna, AScT, Dip. (ENV), CAET
McCulloch, Bernadette, B. Admin. CAET
Morrison, Ian, B.Comm., MA Ed
Ruecker, Shelley, B.Ed.
Sebastian, Tony, Inter-Prov. Jny. (Elect.)
Vanboocquestal, Brandi, Dip. (ARCH)

School of Natural Resources and Built Environment

Bechard, Dan, Dip. Tech. (CADD), AScT – Academic Chair, Engineering Technologies
Herman, Deanna, BA, MA – Academic Chair, Natural Resource Technologies & Co-operative Education
Paul, Grant, Jny. (Mach.) – Academic Chair, Trades and Technologies

BioScience Technology

Saskatoon Campus
Chartrand, Blaine, Dip. (Biotech.), B.Sc., M.Sc. – Program Head
Mulenga-Woo, Debbie, B.Sc. (Adv)

Civil Engineering Technology: Construction & Water Resources, Water & Wastewater Technician

Moose Jaw Campus
Massier, Dean, Dip. (Civil), Cert. (V/T.Ed.), AScT

Alexandre, Gilberto, B.Sc. M.Sc., PhD, P. Eng.
Bowler, Carolyn, Dip. (Water Res.), AScT
Enns, Cody, Dip. (Civil)
Lamothe, Shawn, Dip. (Civil), LEED AP, AScT
Myrchak, Bob, Dip. (CADD), AScT
Thompson, Ron, Dip. (Civil), Cert. (V/T.Ed.), AScT
Waddell, Sasha, BTECH
Watson, Brett, B.Sc., B.Eng., PhD, P. Eng.

Environmental Engineering Technology

Moose Jaw Campus
Forest, Kaya, Dip. (Water Eng.), B.Sc., M.Sc., P.Chem. – Program Head
Bomersbach, Teresa, Dip. (Env. & Water Sci.), AScT
Donald, Dwayne, B.Sc., P.Biol., P.Ag.
Ljunggren, Kelly, Dip. (Env.), A.Sc.T.

Natural Resource Technologies

Prince Albert Campus
Lipsit, Scott, B.Sc. (Adv.), M.Sc., EP – Program Head
Strom, Nat, Dip. (Renewable Resources)
Bahr, Jim, B.Sc., M.Sc.
Fisher, Teal, Dip. (IRM), Cert. (GIS)
Galbrath, Ryan, FCP, B.Sc., Adv. Dip. (GIS), M.Sc., GISP
Greenwood, Hamilton, B.Sc. (Hons.), PhD
Halstead, David, B.Sc., M.Sc., P.Biol.
Hlasny, Ron, Dip. (Fish & Wildlife), Dip. (Voc. Ag.), B.Sc. (Hons.)
Lightle, Darcy, B.Sc., P.Biol (AB)
Marchand, Joanne, B.Sc. (Botany)
Pantel, Andrew, B.Sc., M.Sc., P.Ag
Pillipow, Zane, Dip. (Tax. Tech.), RPF
Sutor, Stan, Cert. (Cons. Law Enforcement), Dip. (Renew. Resource Mgmt.)

School of Transportation

Pritchard, Steven, RSE (TTMR) – Academic Chair
Youzwa, Gerry, BA, Program Innovation & Development – Academic Chair

Agricultural Equipment Technician

Saskatoon Campus
Thomson, Chris, RSE (AMT, HDR), JDU (Advanced), Post-Sec. Voc. – Program Head
Auchstetter, Brent, RSE. (AMT, HDR), JDU (Master)
Boutin, Rupert, RSE. (AMT, HDR), JDU (Master)
Childs, Steve, RSE (AMT), JDU (Advanced)
Coates, Tim, RSE (AMT), JDU (Advanced)
Dahl, Tim, RSE (AMT), Jny. (HDR), JDU (Master)
Friesen, Marlon, RSE (AMT), JDU (Advanced)
Gemsheid, Chad, RSE (AMT), JDU (Advanced)
Saskatchewan Polytechnic Governance, Administration and Faculty

Schultz, Stacy, RSE (AET, HDR), CNH (Master)
Peter James, RSE (AET), JDU (Advanced)

Auto Body Technician

Saskatoon Campus
Kucharyshen, Scott, RSE (MVBR), BSE, I-CAR Platinum
Bloomquist, Evan, RSE (MVBR), I-CAR Platinum
Shaw, Jeremiah, RSE (MVBR), BSE, I-CAR Platinum

Regina Campus
Hawkins, Dale, RSE (MVBR), I-CAR Platinum, I-CAR Instructor
Renner, Robert, RSE (MVBR), I-CAR Instructor
Roset, Shane, RSE (MVBR), I-CAR Instructor
Schalk, Raymond, RSE (MVBR) I-CAR Welding Certified

Automotive Service Technician/Automotive Service Education Program

Saskatoon Campus
Worobec, Robert, RSE (AST), Dip. (Visual Comm.)
  – Program Head
Horudko, Calvin, RSE (AST), Cert. (Blue Seal), Cert. (Adult Ed & Training)
Johnson, Garnet, RSE (AST), Cert. (Prof. A Teach.), B.Ed.
Phillips, Lorne, RSE (AST), Cert. (V/T.Ed.), Cert. (Blue Seal), B.Ed.
Rutledge, Darryl, RSE (AST, TTMR)
Sawatzky, Glenn, RSE (AST)
Thompson, Rob, RSE (AST), Cert. (V/T.Ed.), CAET
Mandersheid, Ian, RSE (AST)
Guthrie, Nicholas, RSE (AST)
Preston, Jeff, RSE (AST)

Moose Jaw Campus
Hazell, Darwin, RSE (AST), Cert. (Teach.) – Program Head
Flegel, Dominic, RSE (AST)
Kennedy, Andrew, RSE (AST)
Leaman, Don, RSE (AST), Cert. (Teach.)
Mohr, Dennis, RSE (AST), Jny. (Truck & Trans.), Cert. (Teach.)
Schlamp, Todd, RSE (AST), Cert. (Teach.)
Jodi Collins, RSE (AST)

Regina Campus
Hazell, Darwin, RSE (AST), Cert. (Teach.) – Program Head
Dulong, John, RSE (AST)
Reitmeier, Tom, RSE (AST)

Parts Management Technician

Saskatoon Campus
Elliott, Karla, RSE (Partsperson), Cert. (Blue Seal, Leadership) BA (Psych)
Engel, Dave, RSE (Partsperson), Cert. (Parts Mgmt., Blue Seal, Leadership) BAC
Long, Richard, RSE (Partsperson), Cert. (Parts Mgmt. CAET)
Mervold, David, RSE (Partsperson), Cert. (Parts Mgmt., Blue Seal, Leadership)
Mohr, Heather, RSE (Partsperson), Cert. (Parts Mgmt., Blue Seal, Leadership), Dip. (Hotel & Rest. Admin.)
Mohr, Jason, RSE (Partsperson) Cert. (Blue Seal, Leadership)

Commercial Pilot

Saskatoon Campus - Koyl Avenue
Muzyka, Randall, B.Comm., ATPL, PE – Program Head
School of Business

Accounting Certificate

Location
- It is offered on a course-by-course basis through Flexible Learning (combination of distance education and night classes in Regina and Saskatoon).

Start date
- Varies - Continuing Education

Duration
- 12 courses

Admission requirements
- Grade 12

Note: You do not apply or have admission requirements assessed for this program. You take courses through Continuing Education. Once you have successfully completed all the courses in the program, simply apply to graduate.

Program overview

Practical training in accounting can be a tremendous asset, whether you want to broaden your career options, meet changing job requirements or start your own business. It helps to have a good head for numbers, but the real key to success in the field is attention to detail and accuracy.

You'll receive practical training in:
- Accounts receivable and accounts payable;
- Accounting for partnerships, shareholder equity, pension plans;
- Accounting software and information systems;
- Bookkeeping;
- Fundamentals of auditing, finance and taxation; and
- Payroll

You'll develop a solid foundation in basic accounting theory, but the focus is on practical application. At Saskatchewan Polytechnic, hands-on exercises and projects help you translate knowledge into skills.

Program Advantages

All 12 courses are available through a combination of distance education and night classes in Regina and Saskatoon.

Courses align with professional accounting designation requirements. You can pursue professional designations to build your earning potential.

Career Opportunities

The Accounting certificate qualifies you for entry-level jobs such as accounts payable/accounts receivable clerk, bookkeeper and payroll clerk. If you're already working, adding accounting skills to your resume opens doors to other jobs and promotions. You can also put the practical skills to work in your own business.

Every organization needs individuals with accounting skills. Jobs are available in health care, education, hospitality, non-profit, transportation, finance, manufacturing, natural resources, construction, government and more.

For more information about career opportunities related to this program, contact Student Employment Services at the campus nearest you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

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</tr>
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<td>ACCT 220</td>
<td>Intermediate Accounting 1</td>
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<td>ACCT 236</td>
<td>Accounting Information Systems</td>
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<td>Finance</td>
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<td>TAX 221</td>
<td>Tax 1</td>
</tr>
</tbody>
</table>

Economics Elective (1 of 2)
- ECON 100: Economics
- ECON 120: Microeconomics

Business Elective (1 of 2)
- LAW 220: Commercial Law
- STAT 120: Business Statistics
Applied Project Management
Applied Certificate

Location
- Online

Start date
Online courses start in September, January and April

Duration
- 14 weeks

Admission requirements
- Open Access

Note: The School of Business recommends that students have basic computer literacy or Windows File Management.

Program overview
Are you looking for effective project management skills so that you can complete projects on time and on budget? This online program will provide you with practical and professional skills in all aspects of project management. Participants in this program often work as project managers, supervisors, or project coordinators and have project work experience that puts the learning into context - no matter what industry they work in.

Sask Polytech is pleased to partner with the Applied Management Centre to bring you the applied Project Management program. As a Registered Education Provider with the Project Management Institute (PMI®), the largest international professional association for project managers, this program provides the necessary training to apply for the PMP® or CAPM® credentials with PMI®.

We are also a Gold Seal Accredited Course Provider with the Canadian Construction Association, and the program is accredited for the maximum number of credits towards the Gold Seal Certification.

Program Details
The program is offered three times per year, starting in September, January and April. It is composed of six courses of varying lengths, which are taken over a 14-week period, although students have the option of completing it over several terms to a maximum of two years. The courses are designed to be taken in sequence to give you the opportunity to progressively work through the entire life cycle of a project - from initiation to closeout. The program finishes with a practical integration project. This final project provides an opportunity to demonstrate competency by consolidating the skills developed throughout the program. Students choose their own projects to complete the 12 required assignments. For more information, please download our Program Information Sheet.

Learn Online
You can access the online courses any time of day. There is no requirement to be online at a specific time, but you must follow the weekly pace. Each module begins on a Saturday and ends the following Thursday. During this time, participants should expect to spend approximately 15 hours per week on coursework and assignments.

The online courses use a wide variety of tools, such as discussion forums, blogs, email, group activities and online videos to increase interactivity between the participants. There is also collaboration with the instructor by email, phone and screen sharing.

Anyone can learn online, but online learning requires different skills than learning in a classroom. It's important to know what to expect, to understand how to succeed in online learning, and to identify any barriers that may hinder your learning in an online environment.

Is this Program Right for You?
Complete this questionnaire and watch this video to help you identify if learning project management online is appropriate for you at this time.

Instructors
All instructors have their Project Management Professional (PMP)® credential and many years' experience working as project managers and teaching project management.

Funding Options
This program is eligible for the Canada-Saskatchewan Job Grant which provides employers with training funds for their employees. To find out more call 306-775-7480 or visit economy.gov.sk.ca/job-grant.

Information Sessions
Information Sessions on the Applied Project Management program are held quarterly. Everyone is invited to join us in person or online. The following information session is upcoming:

Thursday, November 14, 2019
6:30 - 8 p.m.

You can attend in person in room 241, Sask Polytech Regina Campus, or online. Email mary.jesse@saskpolytech.ca to attend this session.

“PMI”, “Project Management Professional”, “PMP”, “Program Management Professional”, “R.E.P.”, and the PMI Registered Education Provider logo are registered marks of the Project Management Institute, Inc.
Upon successfully completing all courses in the program, you will be eligible to graduate and receive the Applied Certificate in Applied Project Management. Complete the application to graduate (pdf) and submit the form and fee to Registration Services.

Career Opportunities

Often as an applied project manager, you work in regulated indoor office environments, but you could visit work sites depending on the industry you are employed in.

The physical skills required depend on the type of project being managed. For example, if you are managing a construction project, you may need to climb ladders and would require the physical ability to do so.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

Courses

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</tr>
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<td>PROJ 111</td>
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<td>Project Leadership &amp; Communications</td>
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<td>PROJ 114</td>
<td>Project Closing &amp; Continuous Improvement</td>
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<tr>
<td>PROJ 115</td>
<td>Applied Project Management Integration and Evaluation</td>
</tr>
</tbody>
</table>

Business Certificate

Location

- Online
- Saskatoon

Start date

September: Saskatoon (full-time)

- Note: The Business certificate is also the first year of the Business Diploma. Full-time students in Saskatoon interested in the Business diploma apply to the Business certificate program. After completing the required prerequisites they apply to the diploma program.

September: Prince Albert (full-time; apply to the Business diploma; Management specialty option only)

September: Moose Jaw (full-time; apply to the Business diploma)

January: Saskatoon (consult with John MacGregor, program head)

January: Moose Jaw (full-time; apply to the Business diploma)

Duration

- 32 weeks (full-time); 11 courses (Flexible Learning)

Admission requirements

- If you take courses through Flexible Learning, you are not required to apply for admission or meet the requirements. Once you have successfully completed all the courses in the program, simply apply to graduate
- Effective beginning 2018/2019 Year 1 (Business Certificate): Grade 12 or successful completion of three (3) courses, of at least 3 credit units each, from this Business certificate program or the Business diploma (year 1) program
- Effective beginning 2018/2019 Year 2 (Business Diploma): Grade 12 or successful completion of three (3) courses, of at least 3 credit units each, from this program (Year 1 - Business Certificate)
- English Language Requirement
- Computer experience using a Windows application is recommended

Program overview

Saskatchewan Polytechnic's one-year Business certificate program provides a solid foundation of the major business concepts and principles for careers in accounting, marketing, management, human resources, insurance, finance and entrepreneurship. Benefits of the Saskatchewan Polytechnic Business certificate include:

- Focus on applied learning = skills required by employers
- More instructional time = increased student success
- Average class size of 25 students = personalized, collaborative, interactive learning
- Ability to ladder learning:
- Into year two of the Business diploma (and access to co-op work terms)
- The certificate and diploma programs are fully transferable to the University of Saskatchewan, University of Regina and other post-secondary institutions.

Business encompasses many disciplines. The Business certificate program prepares you for a wide variety of entry-level positions. It is offered full-time in Saskatoon. Flexible Learning offerings include online and evening classes.
Full-time students in Saskatoon apply to the Business certificate program before entering the Business diploma program. 1 Year to a Diploma

The Business certificate program is equivalent to the first year of the diploma program. You have the option of taking one more year to earn a specialized Business diploma in accountancy, financial services, human resources, insurance, management or marketing.

You can apply to transfer your Business courses to degree programs at various universities. See the get credit for what you know section below.

Part-time Business certificate students

- If you wish to pursue the Business Accountancy specialty diploma, you must take ACCT 125 in order to meet pre-requisites for most second year Accountancy courses
- If you wish to pursue the Business Accountancy specialty diploma, you must take ACCT 136 in order to graduate

Career Opportunities

A Saskatchewan Polytechnic Business certificate opens many doors. Explore entry-level opportunities in banking, retail, real estate, human resources, insurance, marketing and more. Work for a small business, large corporation, government department or non-profit organization. Start your own business or take the family business to the next level. Entry-level positions include management trainees, administrative assistants, financial officers and sales representatives.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<tbody>
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<td>ACCT 125  Introduction to Financial Accounting 1</td>
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<tr>
<td>ADMN 220</td>
<td>Organizational Behaviour</td>
<td>ACCT 122  Managerial Accounting</td>
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<tr>
<td>BCOM 105</td>
<td>Business Communications</td>
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<td>COMP 120</td>
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<td>ECON 120</td>
<td>Microeconomics</td>
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<tr>
<td>HR 120</td>
<td>Introduction to Human Resource Management</td>
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<tr>
<td>LAW 220</td>
<td>Commercial Law</td>
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<tr>
<td>MATH 139</td>
<td>Business Mathematics</td>
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<tr>
<td>MKTG 120</td>
<td>Marketing</td>
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<tr>
<td>Sem 2 Electives (Take 1 of 2)</td>
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<tr>
<td>ACCT 125</td>
<td>Introduction to Financial Accounting 2</td>
<td></td>
</tr>
<tr>
<td>ACCT 225</td>
<td>Managerial Accounting</td>
<td></td>
</tr>
</tbody>
</table>

Sem 2 Electives (Take 1 of 3)

- ACCT 136  Automated Accounting
- FIN 100  Personal Finance
- INS 100  Principles and Practices of Insurance

Note: Students who wish to pursue the Business Accountancy specialty diploma must take ACCT 125 in order to meet pre-requisites for most second year Accountancy courses. Business certificate students must take either ECON 120 or ECON 100. Students who wish to pursue the Business Accountancy specialty diploma must take ACCT 136 in order to graduate.

Business Accountancy Post-Graduate Certificate

Location

- Moose Jaw

Start date

- September

Duration

- 40 weeks

Admission requirements

- A conferred bachelor's degree in any discipline from a recognized post-secondary institution
- English Language Requirement

Program overview

This post-graduate certificate program is designed to help students prepare for the Chartered Professional Accountants (CPA) designation. The program was developed from the CPA competency map that provides graduates with the opportunity to fill current and ongoing demand for accountants. You can apply to use your post-graduate certificate credits for standing toward the Chartered Professional Accountant (CPA) designation.

The Business Accountancy post-graduate certificate program is offered through the School of Business and takes place over three semesters at the Moose Jaw Campus.

Students will gain a deeper understanding of:

- accounting practices and principles
- accounting management
- taxation
- commercial law as it relates to finances and accounting

You'll develop the skills required to earn your CPA designation and grow your accounting career.

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020
Prior Learning Assessment and Recognition (PLAR) and international transfer credit are not available for this program.

**Career Opportunities**

This program helps those with degrees develop their skills and grow their knowledge in order to acquire the CPA designation. This program will help students contribute to the growing economy of many countries around the world.

**Transfer credit**

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

**Courses**

**Semester 1**
- ACCT 600 Introductory Financial Accounting 1
- ACCT 601 Introductory Financial Accounting 2
- BCOM 600 Business Communications
- LAW 600 Commercial Law
- STAT 600 Business Statistics

**Semester 2**
- ACCT 602 Intermediate Accounting 1
- ACCT 604 Cost Accounting 1
- ADTG 600 Auditing
- FIN 600 Finance
- TAX 600 Taxation 1

**Semester 3**
- ACCT 603 Intermediate Accounting 2
- TAX 601 Taxation 2

**Business Diploma**

**Diploma**

**Location**
- Online
- Moose Jaw
- Prince Albert
- Saskatoon

**Start date**
- September and January - Moose Jaw (all specialties)
- September - Prince Albert (Management specialty option only)

- The two-year Business Diploma (Management) in Prince Albert begins with Year One in Fall, 2019 and Year Two in Fall, 2020.

- Students may transfer after Year One (32 weeks) to Moose Jaw or Saskatoon to pursue a Business Diploma in a specialty other than Management.

- September - Saskatoon (Accountancy and Management specialties only - delivered via live streaming)

- Full-Time students in Saskatoon follow this two-step process:
  1. Step 1: Apply to the full-time Business Certificate program (Year One: 32 weeks). After completing the required courses, move to Step 2:
  2. Step 2: Apply to the second year specialty option in the Business Diploma program (Year Two: 32 weeks)

- (The second year Business Diploma options currently available in Saskatoon are Accountancy and Management. If after the first year another option is of interest, students can attend the Moose Jaw Campus for the second year).

**Duration**
- Year 1 - 32 weeks; Year 2 - 32 weeks

**Admission requirements**
- Grade 12 or successful completion of three (3) courses, of at least 3 credit units each, from Year 1 of this program (Business Certificate)
- English Language Requirement

**Program overview**

Saskatchewan Polytechnic's Business diploma will give you a competitive edge in your career. Business students are tomorrow's accountants, financial officers, marketing managers, insurance brokers, human resources specialists and entrepreneurs. Many of the diploma specialties also provide opportunities for co-op work placements.

Our two-year Business diploma program is offered full-time in:

- Moose Jaw (all specialties)
- Saskatoon (Accountancy and Management specialties only - delivered via live streaming)
- Prince Albert (Management specialty only: Year 1 - fall 2019; Year 2 - fall 2020)

Flexible Learning offerings include online and evening classes

**Note:** Locations are subject to change

International students are accepted to the Moose Jaw and Prince Albert programs.

Full-time students in Saskatoon apply to the Business certificate program before entering the Business diploma program.
The Business certificate program is equivalent to the first year of the diploma program. The first year provides a well-rounded foundation in core business concepts, including accounting, computers, economics, human resources, insurance, organizational behavior, marketing and more. The second year allows you to specialize in one of the following areas of expertise.

You can apply to transfer your Business courses to degree programs at various universities. See the Get credit for what you know section below.

**Note:** Be sure to pay special attention to the Electives that are required for second year specialties (listed at the bottom of the Courses section below).

**Accountancy**

Accounting is about more than numbers; it's about conducting audits, doing business analyses and presenting financial information so managers and investors can make informed decisions. Accounting is often called the language of business. If you want to be one of the people at the table when critical business decisions are made, Saskatchewan Polytechnic's Business accountancy specialty will appeal to you.

You'll study cost accounting, auditing, taxation, finance, financial accounting and more. You'll apply theory to real-world situations in business simulations, case studies and group projects. You'll use industry standard software in your courses. Optional co-operative education work terms are a great way to gain valuable experience and make industry connections - while earning money.

You can apply to use your diploma for credit in a degree program at the University of Saskatchewan's Edward School of Business, Royal Roads University, University of Lethbridge or online degree programs at Athabasca University. You can also apply to use your diploma credits for standing toward the Chartered Professional Accountant (CPA) designation. For more information, visit [www.cpacanada.ca](http://www.cpacanada.ca)

Saskatchewan Polytechnic accountancy specialists are in demand. Many grads have jobs lined up before they graduate. You'll find opportunities in every sector: commercial, industrial, institutional, government and non-profit. You could work for an accounting firm or in the accounting department of a private company or government department.

**Financial Services**

If you're interested in a career that combines working with money and working with people, Saskatchewan Polytechnic's Business financial services specialty diploma is a great choice. Financial services is more than banking - it's loans, mortgages, investment products, financial planning and advising, money management, insurance, risk management and more. Essentially it's helping people with their financial health from the cradle to the grave. With so many services and an aging workforce, it's also an industry with exceptional potential for career growth and mentorship.

You'll develop specialized knowledge and skills in residential mortgages, bank operations, financial products and services, loans and credit, personal financial planning, tax fundamentals, advanced investment products and more.

Practical exercises and hands-on activities give you a chance to apply what you learn. A unique seminar course on strategic advising in your final semester gives you a chance to integrate theory and practice in a simulated retail banking environment. It's a chance to polish your skills before entering the workforce.

Saskatchewan Polytechnic works with the Canadian Securities Institute (CSI) to ensure students are meeting actual marketplace needs. As part of your course requirements, you must register with the CSI and purchase specified textbooks that will be used for Saskatchewan Polytechnic's Investment Funds in Canada preparation course. Saskatchewan Polytechnic will guide you through your CSI registration process and textbook purchase.

Graduating with a financial services specialty diploma qualifies you to apply for advanced standing into degree programs at the University of Regina's Paul J. Hill School of Business, Royal Roads University, University of Lethbridge or online degree programs at Athabasca University. Graduates of this specialty may also receive transfer credits towards the Certified in Management designation through the Canadian Institute of Management and the Certified Logistics Professional designation through the Canadian Institute of Traffic and Transportation.

Graduates are prepared to work in a multitude of positions including management trainees in the financial market (financial institutions). These include chartered banks, investment firms, credit unions, trust companies, and insurance companies.

**Human Resources**

Human resources offers the best of two career paths; working with people and working in a business environment. On a day-to-day basis, you might be dealing with benefits, payroll, labour relations or recruitment issues. But you'll also be involved in the bigger picture - designing competitive employee packages, supporting a productive work environment and creating a healthy organizational culture. Saskatchewan Polytechnic's Business human resources specialty provides the broad-based training you need to work in any sector.

This human resources specialty is available on campus in Moose Jaw or through flexible learning options (online and evening). You'll focus on in-depth training in the application of business management practices to employment situations, employee engagement, compensation and benefits, labour and employee relations, organizational effectiveness and behavior, recruitment and selection, training and development, and workplace wellness.

In addition to lecture material, you'll participate in class assignments, role-playing, demonstrations, and simulations. The
emphasis on learning by doing will help you translate theory into real-life skills.

As a human resources student you have the option to spend a year taking three consecutive four-month paid co-operative education work terms. Work terms not only let you develop your skills on the job, they provide an excellent introduction to potential employers.

You can use your Business human resources specialty diploma for credit in degree programs at the University of Regina's Paul J. Hill School of Business, University of Saskatchewan's Edwards School of Business, Royal Roads University, University of Lethbridge or online degree programs at Athabasca University. Graduates of this specialty may also receive transfer credits towards the Certified in Management designation through the Canadian Institute of Management and the Certified Logistics Professional designation through the Canadian Institute of Traffic and Transportation.

There are more job openings than insurance specialty grads. You'll find your skills in demand in communities around the province. Work as an insurance broker/agent in a large firm or as an independent broker. Build a career as a claims adjuster, underwriter or appraiser for government or private insurance agencies.

**Management**

If you like being part of decision-making processes and are interested in organizational culture and interpersonal dynamics, the Business management specialty will appeal to you. Business management is many things - efficient management of people, effective organization of resources, and strategic planning for growth. You could work in an administrative role in a wide range of public and privately owned enterprises, crown corporations and government organizations, or start your own business.

You'll develop knowledge and skills in interpersonal and organizational behavior, finance and managerial accounting, entrepreneurship, digital media, leadership and decision making, cross-cultural management, project management, and strategic management.

You can take a year to participate in the optional three consecutive four-month paid co-operative education work terms between semesters three and four. It's a chance to try different job areas in administration and discover the best fit for your career goals.

Saskatchewan Polytechnic's Business management specialty diploma is accredited by the Canadian Institute of Management (CIM). When you graduate, you'll have met the educational requirements for the Certified in Management (CIM) professional designation. After two years of managerial (or supervisory) work experience, you can apply for the right to put the highly respected "CIM" designation after your name.

You can also use your Business management specialty diploma for credit in degree programs at the University of Regina's Paul J. Hill School of Business, University of Saskatchewan's Edwards School of Business, Royal Roads University, University of Lethbridge or online degree programs at Athabasca University. Graduates of this specialty may also receive transfer credits towards the Certified Logistics Professional designation through the Canadian Institute of Traffic and Transportation.

When you graduate, you will have the knowledge and practical skills for a wide variety of administrative and supervisory jobs in many types of organizations. Or you can apply what you have learned to grow your own business.
Marketing

A career in marketing can take you in many directions - branding, research, public relations, retail, advertising sales or event planning. You can find jobs in these areas in almost every sector, from health agencies to natural resource companies to non-profit organizations.

Our dynamic curriculum includes social media, computer-based simulations, industry-standard Adobe software, crisis management, and other emerging trends.

You can develop on-the-job skills, introduce yourself to different employers and test-drive different types of jobs over the year during three consecutive four-month paid co-operative education work terms.

You'll gain knowledge and skills in advertising, branding and creative design, digital and social media, market research and strategic marketing, project management and relationship selling, public relations, and retail strategy and development.

You'll get a hands-on education using social media, writing copy, doing mock presentations, conducting research, creating computer-based simulations, participating in group projects and more. You'll also get involved in the community; Saskatchewan Polytechnic's Business marketing specialty diploma gives you an opportunity to work on real projects for community-based organizations.

You can apply to use your Business marketing specialty diploma for credit in degree programs at the University of Regina's Paul J. Hill School of Business, University of Saskatchewan's Edwards School of Business, Royal Roads University, University of Lethbridge or online degree programs at Athabasca University. Graduates of this specialty may also receive transfer credits towards the Certified in Management designation through the Canadian Institute of Management and the Certified Logistics Professional designation through the Canadian Institute of Traffic and Transportation.

Business marketing specialty grad work as marketing coordinators, marketing assistants, advertising sales representatives, event planners, publicists, social media specialists, account managers, brand managers, market researchers and more. Use your skills in your own business, work for an advertising agency or design firm, or look for opportunities in larger organizations and government agencies.

Career Opportunities

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx)

Courses

<table>
<thead>
<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td>ACCT 122</td>
<td>Introductory Financial Accounting 1</td>
</tr>
<tr>
<td>ADMN 220</td>
<td>Organizational Behaviour</td>
</tr>
<tr>
<td>BCOM 105</td>
<td>Business Communications</td>
</tr>
<tr>
<td>COMP 120</td>
<td>Information Systems</td>
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<tr>
<td>ECON 120</td>
<td>Microeconomics</td>
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<table>
<thead>
<tr>
<th>Semester 2</th>
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</thead>
<tbody>
<tr>
<td>HR 120</td>
<td>Introduction to Human Resource Management</td>
</tr>
<tr>
<td>LAW 220</td>
<td>Commercial Law</td>
</tr>
<tr>
<td>MATH 139</td>
<td>Business Mathematics</td>
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<tr>
<td>MKTG 120</td>
<td>Marketing</td>
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<table>
<thead>
<tr>
<th>Sem 2 Electives (Take 1 of 2)</th>
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<tr>
<td>ACCT 125</td>
<td>Introductory Financial Accounting 2</td>
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<tr>
<td>ACCT 225</td>
<td>Managerial Accounting</td>
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<table>
<thead>
<tr>
<th>Sem 2 Electives (Take 1 of 3)</th>
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<tbody>
<tr>
<td>ACCT 136</td>
<td>Automated Accounting</td>
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<tr>
<td>FIN 100</td>
<td>Personal Accounting</td>
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<tr>
<td>INS 100</td>
<td>Principles and Practices of Insurance</td>
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Accountancy Semester 3

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<tr>
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<tbody>
<tr>
<td>ACCT 220</td>
<td>Intermediate Accounting 1</td>
</tr>
<tr>
<td>ACCT 226</td>
<td>Cost Accounting 1</td>
</tr>
<tr>
<td>ADTG 220</td>
<td>Auditing</td>
</tr>
<tr>
<td>STAT 120</td>
<td>Business Statistics</td>
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<tr>
<td>TAX 221</td>
<td>Tax 1</td>
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Accountancy Semester 4

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<tbody>
<tr>
<td>ACCT 221</td>
<td>Intermediate Accounting 2</td>
</tr>
<tr>
<td>ACCT 227</td>
<td>Cost Accounting 2</td>
</tr>
<tr>
<td>ACCT 236</td>
<td>Accounting Information Systems</td>
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<tr>
<td>FIN 220</td>
<td>Finance</td>
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<tr>
<td>TAX 222</td>
<td>Tax 2</td>
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</table>

Electives (must take 1 of 5)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ADMN 220</td>
<td>Organizational Behaviour</td>
</tr>
<tr>
<td>ADMN 224</td>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>ECON 121</td>
<td>Macroeconomics</td>
</tr>
<tr>
<td>HR 236</td>
<td>Organizational Change</td>
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<tr>
<td>QM 220</td>
<td>Quantitative Methods for Accountancy</td>
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</table>

Graduation Requirement

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ACCT 136</td>
<td>Automated Accounting</td>
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Financial Services Semester 3

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<thead>
<tr>
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<tbody>
<tr>
<td>ADMN 224</td>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>FIN 202</td>
<td>Financial Products and Services</td>
</tr>
<tr>
<td>FIN 225</td>
<td>Relationship Building</td>
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<tr>
<td>FIN 227</td>
<td>Financial Institution Operations</td>
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Financial Services Semester 4

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>FIN 232</td>
<td>Strategic Financial Advising</td>
</tr>
<tr>
<td>FIN 235</td>
<td>Tax Fundamentals</td>
</tr>
<tr>
<td>FIN 241</td>
<td>Investment Funds in Canada (IFC) Prep</td>
</tr>
<tr>
<td>MKTG 228</td>
<td>Project Management</td>
</tr>
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</table>

Electives (Must take 4 of 6)

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ACCT 136</td>
<td>Automated Accounting</td>
</tr>
<tr>
<td>ACCT 225</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>ADMN 206</td>
<td>Leadership Development</td>
</tr>
</tbody>
</table>
ADMN 220  Organizational Behaviour
ADMN 255  Conflict Management
ECON 121  Macroeconomics
FIN 100  Personal Finance
FIN 220  Finance
HR 230  Talent Acquisition
HR 232  Training and Development
HR 233  Labour Relations
HR 234  Employee Engagement
HR 235  Collective Bargaining and Interest-Based Negotiations
HR 236  Organizational Change
HR 237  Wellness in the Workplace
INS 100  Principles and Practices of Insurance
LAW 220  Commercial Law
MGMT 208  Cross-Cultural Management
MGMT 209  Strategic Management
MKTG 221  Relationship Selling
MKTG 222  Advertising and Marketing Communications
MKTG 223  Marketing Research
MKTG 224  Creative Design
MKTG 225  Public Relations
MKTG 226  Strategic Marketing
MKTG 227  Digital Media

Human Resources Semester 3
ADMN 206  Leadership Development
HR 233  Labour Relations
HR 234  Employee Engagement
HR 236  Organizational Change

Human Resources Semester 4
ADMN 206  Leadership Development
HR 233  Labour Relations
HR 234  Employee Engagement
HR 236  Organizational Change

Electives (Must take 4 of 22)
ACCT 136  Automated Accounting
ACCT 225  Managerial Accounting
ADMN 220  Organizational Behaviour
ADMN 224  Entrepreneurship
ECON 121  Macroeconomics
FIN 100  Personal Finance
FIN 220  Finance
FIN 225  Relationship Building
HR 235  Collective Bargaining and Interest-Based Negotiations
HR 237  Wellness in the Workplace
INS 100  Principles and Practices of Insurance
LAW 220  Commercial Law
MGMT 208  Cross-Cultural Management
MGMT 209  Strategic Management
MKTG 222  Advertising and Marketing Communications
MKTG 223  Marketing Research
MKTG 224  Creative Design
MKTG 225  Public Relations
MKTG 226  Strategic Marketing
MKTG 227  Digital Media

Graduation Requirement
INS 100  Principles and Practices of Insurance

Management Semester 3
ADMN 206  Leadership Development
ADMN 224  Entrepreneurship
MGMT 208  Cross-Cultural Management
MGMT 209  Strategic Management
MKTG 222  Advertising and Marketing Communications
MKTG 223  Marketing Research
MKTG 224  Creative Design
MKTG 225  Public Relations
MKTG 226  Strategic Marketing
MKTG 227  Digital Media

Electives (Must take 4 of 21)
ACCT 136  Automated Accounting
ACCT 225  Managerial Accounting
ADMN 220  Organizational Behaviour
ECON 121  Macroeconomics
FIN 100  Personal Finance
FIN 225  Relationship Building
HR 230  Talent Acquisition
HR 232  Training and Development
HR 233  Labour Relations
HR 234  Employee Engagement
HR 235  Collective Bargaining and Interest-Based Negotiations
HR 236  Organizational Change
HR 237  Wellness in the Workplace
INS 100  Principles and Practices of Insurance
LAW 220  Commercial Law
MKTG 221  Relationship Selling
MKTG 222  Advertising and Marketing Communications
MKTG 223  Marketing Research
MKTG 224  Creative Design
MKTG 225  Public Relations
MKTG 226  Strategic Marketing

Marketing Semester 3
MKTG 221  Relationship Selling
MKTG 223  Marketing Research
MKTG 225  Public Relations
MKTG 228  Project Management

Marketing Semester 4
MKTG 220  Retail Strategy & Development
MKTG 222  Advertising and Marketing Communications
MKTG 226  Strategic Marketing
MKTG 227  Digital Media

Electives (Must take 4 of 22)
ACCT 136  Automated Accounting
ACCT 225  Managerial Accounting
ADMN 206  Leadership Development
ADMN 220  Organizational Behaviour
ADMN 224  Entrepreneurship
ADMN 255  Conflict Management
ECON 121  Macroeconomics
FIN 100  Personal Finance
FIN 220  Finance
FIN 225  Relationship Building
HR 230  Talent Acquisition
HR 232  Training and Development
HR 233  Labour Relations
HR 234  Employee Engagement
HR 235  Collective Bargaining and Interest-Based Negotiations
HR 236  Organizational Change
HR 237  Wellness in the Workplace
INS 100  Principles and Practices of Insurance
LAW 220  Commercial Law
MGMT 208  Cross-Cultural Management
MGMT 209  Strategic Management
MKTG 224  Creative Design

Note: Students who wish to pursue the Business Accountancy specialty diploma must take ACCT 136 in order to graduate

Business Management
Post-Graduate Certificate

Location
- Moose Jaw
- Prince Albert

Start date
- September and January

Duration
- 32 weeks

Admission requirements
- A conferred bachelor's degree in any discipline from a recognized post-secondary institution
- English Language Requirement

Program overview
The Business Management post-graduate certificate is an eight-month program that provides a unique opportunity for professionals who want to advance their careers through the development of leadership and management knowledge and skills. The program will prepare students with an existing bachelor's or master's degree to assume leadership and managerial roles in Saskatchewan and Canadian public and private enterprise. Students will develop skills and knowledge in fields of management, accounting, marketing, leadership, business communications, and cross-cultural business practices.

You will apply theory to real-world situations in business simulations, case studies and group projects, and use industry standard software in your courses. Your combination of core and elective courses will prepare you for progression into career opportunities requiring strong leadership and management skills.

Students whose prior degrees are in non-business subjects may want to pursue additional business training at Saskatchewan Polytechnic. Graduates from the Business Management post-graduate certificate may qualify for advanced standing in other Saskatchewan Polytechnic business certificate and diploma programs, including specialized training in Human Resources, Marketing, Accountancy, Insurance, Financial Services, and Management.

Prior Learning Assessment and Recognition (PLAR) and international transfer credit are not available for this program.
School of Business
Sask Polytech Programs

Career Opportunities

Graduates from Saskatchewan Polytechnic business programs are in demand. You will find opportunities in diverse occupations and sectors, including positions as administrative supervisors, general administrators, and managers in the natural resources, health, service, trade, and transportation sectors.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

Semester 1
- ACCT 605 Accounting for Managers
- ADMN 600 Organizational Behaviour
- BCOM 600 Business Communications
- COMP 601 Business Software Applications
- LEAD 600 Leadership Development

Semester 2
- LAW 600 Commercial Law
- MGMT 601 Strategic Management
- MGMT 602 Project Management
- MGMT 603 Change Management
- MGMT 604 Cross-Cultural Management
- MKTG 600 Marketing Management

Note: Students take one of either MGMT 603 or MGMT 604.

Career Essentials

Applied Certificate

Location
- Prince Albert
- Regina

Start date

No offerings currently available. Contact Michele Ellingsen Ailsby at michele.ellingsenailsby@saskpolytech.ca or 306-775-7479, if you are interested in this program.

Duration
- 20 weeks

Admission requirements
- Open Access

- English Language Requirement

Note:

Sponsored students will be required to complete a pre-program skills assessment.

For more information about how to apply in Regina, contact Michele Ellingsen Ailsby at michele.ellingsenailsby@saskpolytech.ca or 306-775-7479.

Program overview

Career Essentials is an applied certificate program that will provide the essential tools you need to be successful in your career. Build the knowledge, skills and confidence to find a rewarding job, advance your career and increase your success in further training. Career Essentials will help you meet your goals.

During your 20-week program you will have the opportunity to:

- build fundamental digital/computer and keyboarding skills
- assess your skills, interests, values and personal style
- research the occupations and jobs that most interest you
- set meaningful and realistic career goals
- refresh the essential skills most relevant to your career goals
- develop the tools you need to conduct a successful job search
- add a variety of professional development achievements to your portfolio of skills

For the final component of your Career Essentials program you will work on-site with a local employer, in exchange for training, skill development, networking, and the opportunity to be considered for current and future employment opportunities.

Career Essentials is currently offered and supported only by Skills Training Allocation (STA), or through contractual arrangements with our sponsor. Sponsored students must be unemployed or underemployed Saskatchewan residents who are legally entitled to work in Canada.

Career Opportunities

Graduates of the Career Essentials program may be found in a broad range of occupations and roles, from entry level to professional. The career you target will depend on your qualifications, skills, aptitudes, interests, and the opportunities currently available in your labour market.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx
Courses

CAPL 100  Know Yourself: Exploring Skills & Interests
CAPL 101  Labour Market Research
CAPL 102  Career Action Plan
COMP 108  Introduction to Digital Communication
COMP 170  Basic Computer Operation
COMP 171  Introduction to Microsoft Word
COMP 174  Introduction to Microsoft Excel 1
CWEX 100  Essential Skills Foundations
CWEX 101  Applying Essential Skills
CWEX 102  Tools and Techniques to Find a Job
CWEX 103  Strategies for Workplace Success
WORK 128  Work Experience

- Compensation and benefits
- Conflict management
- Employee and labour relations
- Recruitment and selection
- Training and development
- Leadership development
- Project management

Courses integrate demonstrations, projects and practical exercises to help you translate theory into practice. For example, you’ll develop a proposal to help management enhance employee relations; you’ll discuss current trends in labour relations; you’ll use role-play to develop conflict resolution skills; you’ll participate in simulations and experiential exercises to build practical skills.

Human Resources Management Certificate

Location

- It is offered on a course-by-course basis through Continuing Education (evenings and Saturdays, and by distance)

Start date

- Varies - Part-Time Studies

Duration

- 12 courses

Admission requirements

- Grade 12

Note: You do not apply or have admission requirements assessed for this program. You will take courses through Continuing Education. Once you have successfully completed all the courses in the program, simply apply to graduate.

Program overview

If you’re hoping to move into positions that require skills in employee recruitment and training, or knowledge of labour relations, organizational behaviour, health and safety, Saskatchewan Polytechnic’s Human Resources Management certificate program will interest you. It’s practical training in critical HR functions, from payroll and benefits to recruitment and labour relations. Take the program to develop in-demand knowledge and skills in the growing field of human resources management.

The Human Resources Management certificate program is offered on a course-by-course basis through Flexible Learning on evenings and Saturdays, as well as through distance education. You’ll study key areas in HR management such as:

- Compensation and benefits
- Conflict management
- Employee and labour relations
- Recruitment and selection
- Training and development
- Leadership development
- Project management

Career Opportunities

Human resources professionals work for large companies, municipalities, government departments, health authorities, university and school systems. You might start as an entry-level HR assistant, or you might move into a general management position that demands HR skills. Your certificate prepares you to work in different areas of human resources management, including classifications, recruitment, benefits, employment equity, job analysis, employee relations, staff training and administration.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

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Register online at saskpolytech.ca or call 1-866-467-4278
School of Business
Sask Polytech Programs

MKTG 223: Marketing Research
MKTG 225: Public Relations
MKTG 226: Strategic Marketing
MKTG 227: Digital Media
MKTG 228: Project Management

NOTE: Students must also take one of BCOM 105 or BCOM 120.

Leadership and Coaching Development Certificate of Achievement

Location
• Regina

Start date
• October 7, 2019 - January 17, 2020
  • Module 1, online: October 7 - November 1, 2019
  • Module 2, classroom: November 5-7, 2019
  • Module 3, online: November 8 - December 6, 2019
  • Module 4, classroom: December 9, 2019
  • Module 5, online: December 10, 2019 - January 7, 2020

Duration
• 15 weeks

Admission requirements
There are no admission requirements.

Program overview

Designed for managers and supervisors, this unique, blended learning Leadership and Coaching program provides leadership strategies to effectively lead individuals and teams. Build your leadership style by learning Crane’s coaching model, practicing effective coaching and communication techniques and finalizing your Leadership Action Plan. You will receive coaching to support your leadership journey.

As a student, your learning will take place on campus in Regina and online. There are five sequential modules of 36 hours online learning (self-paced) and 24 hours classroom practice in Regina.

Your investment includes a copy of The Heart of Coaching by Thomas Crane, the Strengths Finder Self-Assessment Tool, plus an individual coaching session with our program instructors.

Modules:
- Introduction to Leadership and Coaching (module 1, online)
- determine personal leadership strengths using StrengthsFinder Self-Assessment
- examine Crane’s leadership and coaching model
- learn the importance of goal setting

Identifying and Enhancing Your Leadership Skills (module 2, classroom)
- build on leadership strengths and learn how to use your strengths when leading others
- discuss the importance of clear communication and feedback when coaching and leading others
- learn the reasons for conflict and discover a model for reducing conflict in the workplace
- using Crane’s coaching model, practice an introductory coaching scenario

Coaching Practice (module 3, online)
- demonstrate leadership knowledge and skills through the coaching process
- engage in peer-to-peer coaching with a classmate
- practice coaching with a workplace partner

Leading Self, Leading Others (module 4, classroom)
- review workplace coaching experiences and identify leadership strengths and challenges
- identify leadership behaviours that build strong teams
- review models to build highly effective teams
- learn an approach to decision-making

Leadership in Action (module 5, online)
- apply leadership and coaching knowledge and skills
- write your personal leadership action plan incorporating your leadership vision and values
- participate in a one-on-one coaching session with a coach instructor

Classroom sessions are mandatory, and are held at Regina Campus.

Potential Funding Sources

This program is eligible for the Canada-Saskatchewan Job Grant.

For those working in registered charities in social services or early learning, the Muttart Foundation may provide a tuition bursary for this course. Apply online or contact t.stang@muttart.org.

Register now

For more information, contact corporate.training@saskpolytech.ca

Career Opportunities
A certificate in Leadership and Coaching Development adds value to both your resume and your workplace. Demonstrated leadership and coaching skill is important to many employers. You may be able to advance in your organization or find new opportunities in coaching and mentorship roles. You can use these new skills in your current role to develop stronger work teams, effectively manage conflict, and increase productivity.

**Transfer credit**

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**Courses**

LEAD 010  Leadership and Coaching Development

**Office Administration Certificate**

**Location**

- Online
- Prince Albert
- Regina

**Start date**

- September and January - Prince Albert and Regina (full-time)
- Part-time Studies (course offerings vary)

**Duration**

- 32 weeks (full-time); 14 courses (Part-time Studies)

**Admission requirements**

- Grade 12
- English Language Requirement

**Program overview**

Saskatchewan Polytechnic’s Office Administration program is a one-year certificate program offered full-time on-campus in Prince Albert and Regina.

You may also take all the courses in the program through Continuing Education. If you take the courses through Continuing Education, you are not required to apply for admission or meet the requirements. Once you have successfully completed all the courses, simply apply to graduate.

This program provides knowledge and skill development related to the business office environment, with an emphasis on computer applications. Instruction is augmented by projects that will give you a hands-on understanding of the demands and rewards of work in an office setting.

You’ll learn how to:

- Edit and write business letters, memos and email communication;
- Effectively use leading business software applications, including word processing, spreadsheets, databases, presentations, desktop publishing and Adobe to create business documents;
- Execute office procedures such as reception, mail processing, email communication, calendaring, telephone communication, maintaining office equipment, task management and meeting participation;
- Generate, maintain and retrieve manual and electronic records;
- Use interpersonal communications in the workplace; and
- Use automated accounting software and do basic accounting.

Saskatchewan Polytechnic emphasizes hands-on learning, especially when it comes to computer and software programs. You’ll learn to use leading office software, from word processing to accounting to email. You’ll gain practical experience through simulated office situations. You’ll practise standard office procedures, from directing telephone communications to preparing for meetings to maintaining office equipment and managing office supplies.

**Job-Ready at Graduation**

Your Sask Polytech classroom mirrors a business environment. Business attire is expected. You’ll work individually and in teams. You’ll turn classroom friendships into a professional network. You’ll learn by doing. This means, for example, that you’ll learn about Microsoft Office by using it in class, about managing office supplies and business forms as well.

**Career Opportunities**

Every business needs administrative assistants. This gives Saskatchewan Polytechnic Office Administration graduates a broad job market: government, education, law, medicine, engineering, manufacturing, travel, insurance, banking and business. You could work in a large organization and become a specialist or in small business and perform a wide variety of duties. Entry-level positions include administrative assistant, administrative support staff, receptionist, bookkeeper, customer service representative and more.

For more information about career opportunities related to this program, contact Student Employment Services at the campus nearest you.
Transfer credit

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<tr>
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<td>BCOM 103 Interpersonal Communications</td>
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<tr>
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<td>OPRO 100 Office Procedures</td>
<td>EMPS 105 Personal Management</td>
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<tr>
<td>OPRO 133 Records Management</td>
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</tbody>
</table>

(Must take one semester 2 elective)

**Retail Manager**

**Applied Certificate**

**Location**

- Delivery is subject to needs assessment.

**Start date**

- Varies

For more information, contact Garry Whitley at [garry.whitley@saskpolytech.ca](mailto:garry.whitley@saskpolytech.ca) or (306-765-1772).

**Duration**

- 20 weeks

**Admission requirements**

- Grade 12 with English Language Arts A30 and English Language Arts B30
- English Language Requirement

**Program overview**

**Note: This program is deleted effective July 1, 2017.**

If you have good communication, organization and leadership skills, a professional attitude and work ethic, and enjoy dealing with customers and employees, explore the career opportunities and earning potential in retail management.

Saskatchewan Polytechnic offers a 20-week Retail Manager applied certificate program through continuing education at regional colleges throughout the province. The program will help you develop entrepreneurship and small business management skills specific to the independent retail industry. You'll learn about:

- Automated accounting and bookkeeping;
- Customer service;
- Financial analysis and financing;
- Human resources (hiring, training, supervising);
- Merchandising, marketing and marketing research; and
- Point-of-sale software and automated banking.

**On-the-Job Training**

You'll spend four weeks in a retail business. You'll have an opportunity to see management and leadership practices from the inside out and apply your training in the day-to-day operation of a small business.

**Career Opportunities**

When you graduate, you'll be ready to supervise and coordinate a retail team, including sales clerks, cashiers, grocery clerks, shelf stockers and others. You could work as an assistant store manager, store manager, retail human resources manager, retail operations manager or retail loss prevention manager. You can use your training and experience to advance into higher management positions, store ownership/franchise opportunities and more.

**Transfer credit**

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**Courses**

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<td>BUS148</td>
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</tr>
<tr>
<td>BUS153</td>
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<tr>
<td>BUS158</td>
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</tr>
<tr>
<td>COAP107</td>
<td>Not Available</td>
</tr>
<tr>
<td>COMP 170</td>
<td>Basic Computer Operation</td>
</tr>
</tbody>
</table>
Service Excellence
Applied Certificate

Location
- Delivery is subject to needs assessment.

Start date
- Varies

For more information, contact Joan Patterson at pattersonj@saskpolytech.ca or 306-775-7479.

Duration
- 180 hours

Admission requirements
- Current employees who have:
  - a working knowledge of the services and programs that their employing organization provides
  - experience delivering these services and programs
- English Language Requirement

Note: To ensure the successful completion of course activities and assignments, we recommend that students are able to read, write, and communicate at a grade 12 level.

Program overview
Note: This program is deleted effective July 1, 2017

In business, there's nothing more important than client service. Knowing how to provide professional, exceptional service is key to success—whether you're working in the public or private sector, in retail or real estate, or in personal or financial services.
Supply Chain Management
Post-Graduate Certificate

Location
- Moose Jaw

Start date
- September and January

Duration
- 40 weeks

Admission requirements
- A conferred bachelor's degree in Business or Engineering from a recognized post-secondary institution
- English Language Requirement

Note:
Completion of the post-graduate certificate in Business Management, or an equivalent post-graduate certificate or master's degree in a business-related field, shall be considered as equivalent to an undergraduate degree in business for the purpose of meeting the admission requirements for this program.

Program overview
The Supply Chain Management post-graduate certificate is a 10-month program that provides hands-on education in the field of supply chain management. The program will provide students with the tools necessary to strategize solutions to complex problems and situations and will develop their competence in the area of planning, sourcing, producing and delivery products and services. The program will prepare students with an existing bachelor's degree in business or engineering to understand and work in the supply chain management industry in Saskatchewan and Canadian public and private enterprise. Students will develop skills and knowledge in fields of procurement, negotiations, leadership, logistics, risk management and information systems.

You will apply theory to real-world scenarios in business situations, case studies, group projects and role playing exercises. You will be provided with a mentorship opportunity while completing your capstone project.

Graduates from the Supply Chain Management post-graduate certificate may qualify for advanced standing toward the Supply Chain Management Association designation.

Prior Learning Assessment and Recognition (PLAR) and transfer credit are not available for this program.

Career Opportunities
Graduates from Saskatchewan Polytechnic business programs are in demand. You will find opportunities in diverse occupations and sectors, including positions such as supply chain supervisors, production logistics coordinators, purchasing and inventory control workers and shippers and receivers.

Transfer credit
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Courses

**Semester 1**
- ADMN 601 Introduction to Procurement
- BCOM 600 Business Communications
- LEAD 600 Leadership Development
- MGMT 605 Introduction to Supply Chain Management
- NGTN 600 Negotiation Skills

**Semester 2**
- ADMN 602 Strategic Procurement
- COMP 602 Information Systems
- MGMT 604 Cross-Cultural Management
- MGMT 606 Logistics and Distribution
- MKTG 600 Marketing Management

**Semester 3**
- MGMT 607 Risk Management
- PROJ 601 Capstone Project

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020
School of Construction
SASK POLYTECH Programs

Architectural Technologies
Diploma

Location
- Moose Jaw

Start date
- September

Duration
- 76 weeks
  - There are five academic semesters and three mandatory four-month paid Co-operative Education work terms. Semesters and co-op work term time patterns are listed in Courses below.

Admission requirements

Grade 12 with a minimum of 70% in Pre-Calculus 30* English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:
- Minimum combined average of 70% in Math A30, B30, and C30

Program overview

Architectural technologists are involved at every stage of building design and construction, from blueprints to building codes and from interior design to space planning. It’s a great career for detail-oriented, visual thinkers who enjoy working in a technology-driven environment. You’ll be able to work in residential, commercial and institutional design and construction.

Architectural Technologies is a three-year diploma offered full time at Saskatchewan Polytechnic Moose Jaw campus. It includes five academic semesters and three four-month Co-operative Education work terms. The program offers two areas of concentration: Building Sciences and Interior Design. The first three semesters are common to both areas. You’ll focus on residential design and wood frame construction (National Building Code - Part 9), and build knowledge and skills in:

- properties and function of construction materials
- criteria and methods of building construction and design
- preparation of construction documents
- construction contract administration

In your fourth and fifth semesters, you’ll focus in on your chosen area. In Building Science, you’ll receive an introduction to commercial and institutional building construction with emphasis on construction detailing and methods, structural systems, environmental controls and the building envelope (National Building Code - Parts 3 and 4).

In Interior Design, you’ll receive an introduction to commercial and institutional interior construction with an emphasis on interior finishes, detailing and methods, space planning, lighting design and material selection (National Building Code - Parts 3 and 4).

Your co-operative work term counts as courses. You pay tuition and receive credit, but you also get paid. It’s a great way to gain valuable experience while earning a salary.

The Co-op Work Term Advantage

Co-operative work terms are paid, so you’ll earn while you learn. Saskatchewan Polytechnic arranges your interviews; it’s up to you to shine. It’s also a chance to develop important “soft skills” in job interviewing, professional attitude, interpersonal communication and more.

Many of our co-op employers require both a valid Saskatchewan Driver's License and a clean Driver's Abstract. For international students, it can take up to 12 months to obtain a Driver's license; therefore, it is to your advantage to come with a Driver's License from your home country if possible.

Diploma to Degree

Use your Architectural Technologies diploma to ladder into the Bachelor of Construction Management right here at Saskatchewan Polytechnic or as a stepping stone to the Bachelor of Interior Design degree program at RCC Institute of Technology or the Bachelor of Technology degree program at Memorial University in Newfoundland.

Career Opportunities

Graduates are prepared for a variety of careers in the building design construction industry. Many graduates are self-employed consultants in the home building industry while others work for architects, engineers, interior designers, home designers, facility managers, developers, contractors or construction specialty companies.

For more information about career opportunities related to this program, contact Student Employment Services at the campus nearest you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to...
### School of Construction

#### SASK POLYTECH Programs

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<td>COOP 201</td>
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<td>Semester 4 (Building Sciences)</td>
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<td>HIST 221</td>
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<td>RENO 220</td>
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<td>Co-operative Work Term 3</td>
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<td>COOP 301</td>
<td>Co-operative Work Term</td>
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</tr>
<tr>
<td>Semester 5 (Building Sciences)</td>
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</tr>
<tr>
<td>ADMN 258</td>
<td>Project Management and Estimating</td>
<td></td>
</tr>
<tr>
<td>BLDG 250</td>
<td>Building Systems: Commercial Interiors</td>
<td></td>
</tr>
<tr>
<td>CNST 234</td>
<td>Building Construction: Furniture Construction</td>
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</tr>
<tr>
<td>CODE 300</td>
<td>Building Code: Part 3 Applications 3</td>
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</tr>
<tr>
<td>DRFT 233</td>
<td>Architectural Drafting: Commercial Working Drawings</td>
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</tr>
<tr>
<td>PROJ 228</td>
<td>Applied Research: Capstone Project</td>
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</tr>
<tr>
<td>STRU 240</td>
<td>Structural Design: Structural Steel</td>
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<tr>
<td>Semester 5 (Interior Design)</td>
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<tr>
<td>ADMN 258</td>
<td>Project Management and Estimating</td>
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<td>CODE 300</td>
<td>Building Code: Part 3 Applications 3</td>
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<tr>
<td>DRFT 233</td>
<td>Architectural Drafting: Commercial Working Drawings</td>
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<tr>
<td>DSGN 235</td>
<td>Design Studio: Commercial Mixed Occupancy 2</td>
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</tr>
<tr>
<td>PROJ 228</td>
<td>Applied Research: Capstone Project</td>
<td></td>
</tr>
</tbody>
</table>

### Bachelor of Construction Management Degree

#### Location
- Regina

#### Start date
- September
- The current class schedule allows you to learn while you earn. All classes are offered in the afternoon, typically starting at 5 p.m. Students are able to connect remotely to classes.

#### Duration

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020 52
School of Construction
SASK POLYTECH Programs

- Year 3 - 32 weeks; Year 4 - 32 weeks (4 semesters)

Admission requirements

- Completion of one of the following recognized qualifying diploma and degree programs **:
  - Architectural Technologies (Building Sciences or Interior Design)
  - CAD/CAM Engineering Technology *
  - Civil Engineering Technologies (Civil Construction or Water Resources)
  - Electrical Engineering Technology *
  - Engineering Design and Drafting Technology
  - Environmental Engineering Technology
  - Geomatics and Surveying Engineering Technology
  - Mechanical Engineering Technology *
  - Mining Engineering Technology *
  - English Language Requirement

* The indicated programs require that students complete additional courses in order to be eligible to graduate. ** In addition, graduates from recognized accredited engineering, urban planning or architecture degree programs will be accepted for admission

Note:

Any qualified applicants who do not have the required admission credits identified will be provided with a bridging plan to acquire the needed credits.

Saskatchewan Polytechnic procedures for general Admission Requirements, Special Admission, and Admission Processes are available on the institutional website.

The program head will evaluate the applicant’s academic credentials for their eligibility for Special Admission. This evaluation will be done at the discretion of the program head within Saskatchewan Polytechnic credit and PLAR procedures. International students can also be considered under this review process.

Program overview

The Bachelor of Construction Management (BCM) degree program is unique in Saskatchewan offering students the opportunity to earn an after-diploma baccalaureate degree with an additional two years of study. The program was developed in response to industry need and global trends for trained professionals in the construction industry. The BCM program combines practical multi-faceted skills with theoretical knowledge and technical training, truly a practitioner’s degree.

Sask Polytech is proud of its reputation of providing industry with ‘career ready’ graduates, and this degree is no exception while providing a unique, direct and relevant path for students to earn a degree in this increasingly important area. The curriculum encompasses a comprehensive spectrum of construction management topics including:

- scheduling
- estimating
- safety
- contract law
- cost control
- tendering
- project management

During Year 4 of the BCM, students will participate in an industry-supported capstone project.

This program is offered with the written authorization of the Minister of Advanced Education, effective July 1, 2017. This authorization was provided after the program proposal underwent a quality assurance review and was found to meet the standards established by the Minister. Prospective students are responsible for satisfying themselves that the program and degree will be appropriate to their needs.

Career Opportunities

Graduates will be prepared for leadership roles in the growing heavy industrial, commercial, engineering, and construction industries. They will be actively engaged in managing the safe, timely and cost effective delivery of a broad range of projects in industries like construction, oil and gas, engineering, design, research and development, and entrepreneurship. Career opportunities could include roles such as assistant construction manager, assistant project manager, project document controller, junior contract administrator, assistant facilities manager, project coordinator, and construction inspector.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

**Year 3 - Semester 5**

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<tr>
<td>ADMIN 300</td>
<td>Organizational Behaviour and Conflict Management</td>
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<tr>
<td>ANLT 300</td>
<td>Applied Critical Thinking and Logic</td>
</tr>
<tr>
<td>COMM 301</td>
<td>Managerial Communications</td>
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<td>LAW 300</td>
<td>Construction Law</td>
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**Elective 1 (must take 1 of 2)**

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<tr>
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<tr>
<td>PSYC 101</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>SOCI 100</td>
<td>Introduction to Sociology</td>
</tr>
</tbody>
</table>

**Year 3 - Semester 6**

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020 53
As a student in the Bricklayer Applied Certificate program, you will develop the required knowledge and skills to work in residential and commercial construction.

**Career Opportunities**

**Transfer credit**

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**Courses**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>BPRT 102</td>
<td>Construction Documents and Sketching</td>
</tr>
<tr>
<td>EQPT 111</td>
<td>Tools and Equipment</td>
</tr>
<tr>
<td>JOBS 290</td>
<td>Job Search</td>
</tr>
<tr>
<td>MATE 102</td>
<td>Masonry Materials</td>
</tr>
<tr>
<td>MATH 112</td>
<td>Trade Math</td>
</tr>
<tr>
<td>MSON 100</td>
<td>Mortars</td>
</tr>
<tr>
<td>MSON 101</td>
<td>Miscellaneous Masonry</td>
</tr>
<tr>
<td>MSON 103</td>
<td>Site Layout</td>
</tr>
<tr>
<td>SAFE 107</td>
<td>General Safety</td>
</tr>
<tr>
<td>SCAF 103</td>
<td>Scaffolds</td>
</tr>
<tr>
<td>SHOP 107</td>
<td>Shop Projects</td>
</tr>
<tr>
<td>WALL 100</td>
<td>Walls</td>
</tr>
<tr>
<td>WORK 112</td>
<td>Work Placement</td>
</tr>
</tbody>
</table>

As a student in the Bricklayer Applied Certificate program, you will develop the required knowledge and skills to work in residential and commercial construction.

**Career Opportunities**

**Transfer credit**

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<td>Work Placement</td>
</tr>
</tbody>
</table>
As a student in the Carpentry Applied Certificate program, you will receive basic knowledge and develop skills required to work in the residential, commercial construction and related industries.

For more information, contact Ryan Hooyenga, Program Head at 306-659-4032 or ryan.hooyenga@saskpolytech.ca or Janice Matwishyn at 306-765-1564 or janice.matwishyn@saskpolytech.ca

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

Transfer credit

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Courses

- BPRT 127 Construction Documents
- CNST 126 Site Layout
- CONC 122 Concrete
- EQPT 126 Tools
- FNDT 120 Foundations
- FRMG 126 Floor Framing
- FRMG 221 Wall Systems
- FRMG 250 Roof Trusses
- JOBS 125 Essential Job Skills
- MATE 126 Building Materials
- MATH 140 Trade Math
- PROJ 122 Projects
- SCAF 120 Scaffolds and Rigging
- SFTY 129 Safety Awareness
- WORK 125 Work Placement

Carpentry Certificate

Location

- Moose Jaw
- Prince Albert

Start date

- September

Duration

- 30 weeks

Admission requirements

- Grade 10
- English Language Requirement

Program overview

Saskatchewan Polytechnic's Carpentry certificate program will get you started in the largest trade in the construction industry. You’ll need good problem-solving skills, a solid work ethic and the ability to work on your own or as part of a team.

When you graduate, you’ll be qualified for jobs with construction companies, general contractors and subcontractors, or in the maintenance departments of school boards, health districts, mining operations and government departments.

Carpentry is a 30-week certificate program offered at Saskatchewan Polytechnic Moose Jaw campus and Saskatchewan Polytechnic Prince Albert campus. You’ll get the basic training you need to get a job in the trade by building practical knowledge and skills in:

- tools and equipment
- construction documents and quantity survey
- site layout and concrete
- footings and foundations
- framing and building envelope
- exterior finishing and roof coverings
- interior finishing and cabinets
- materials and scaffolds
- trade math and communications

Learn by Building

Most of your time is spent in Saskatchewan Polytechnic’s well-equipped Carpentry shops where you will be able to polish your skills on the many shop projects we have to offer. There is also a two-week work term at the end of the program which often results in full-time employment.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

When you graduate, you’ll have the skills you need to work in a wide range of construction jobs. Look for work with general contractors, interior/exterior subcontractors and framing contractors.
There are jobs in homebuilding and renovations, commercial construction, at industrial mining and manufacturing facilities, and with health, education, municipal and government departments. Get your journeyperson’s ticket and you could move into supervisory, management, sales and teaching positions.

Transfer credit

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Courses

Semester 1
BPRT 127  Construction Documents
CNST 126  Site Layout
CONC 122  Concrete
EQPT 126  Tools
FDND 120  Foundations
FRMG 126  Floor Framing
FRMG 221  Wall Systems
MATE 126  Building Materials
MATH 127  Trade Math
PROJ 122  Projects
SFTY 129  Safety Awareness

Semester 2
BPRT 222  Construction Documents
CNST 127  Transits
EXFN 220  Exterior Finishes and Accessories
EXFN 221  Exterior Windows and Doors
FRMG 222  Roof Framing
INFN 320  Interior Finishes
INFN 321  Wall Cabints
INSL 220  Building Envelope
JOBS 125  Essential Job Skills
ROOF 220  Roof Coverings
SCAF 120  Scaffolds and Rigging
STRS 120  Wood Stairs
WORK 125  Work Placement

Electrician
Applied Certificate

Location

- Regina
- Saskatoon

Start date

Regina:
- August 19 - December 13, 2019

Saskatoon:
- February 10 - June 5, 2020
- August 26 - December 20, 2019
- January 6 - May 8, 2020

Duration

- 17 weeks

Admission requirements

- Grade 11 with Foundations of Mathematics 20 or Workplace and Apprenticeship Mathematics 20 or Pre-Calculus 20*
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:

- Math 20
- General Math 30

Program overview

Want to jump into the construction workforce? Check out the Electrician applied certificate program. At just 17 weeks long, it provides the basic knowledge and skills you need for an entry level job.

Instructors with actual industry experience will help you learn how to install, test, replace and repair lighting fixtures, wiring and electrical equipment. You’ll get lots of hands-on practice using standard tools of the trade. You’ll also learn how to read and interpret construction drawings.

Electrician is a skilled trade. Having an applied certificate will get you noticed by employers and put you on the fast track to having a career as an electrician. The more education and experience you get, the higher you can climb on the wage-earning ladder. A fourth-year journeyperson electrician can earn double the hourly wage of a first-year electrician apprentice.

The Electrician applied certificate program is delivered at Sask Polytech campuses in Regina and Saskatoon. It is also available off campus through Continuing Education and regional colleges.

For more information, contact flexible.learning@saskpolytech.ca

Apprenticeship Credit

Applied certificate programs can give you a head-start on apprenticeship. To learn how to apply your academic credit toward Level 1 of the Construction Electrician apprenticeship program, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities
Program overview

Saskatchewan Polytechnic's Leadership Skills program is designed to introduce you to some of the skills required to move into a supervisory, leadership or management position.

Accreditation

The six courses are accredited by the Canadian Construction Association toward the Gold Seal designation.

Learn Online

All courses are offered online with interactive content, including case studies and engaging discussions. To register, view the complete list of courses on the part-time program page.

Career Opportunities

A Leadership Skills certificate of achievement gives you lots of choices. You can advance within your company to leadership and supervisory roles. You can increase your earning potential and open the door to opportunities in management positions; positions like lead hand, supervisor, shift manager, site manager, and coaching or mentoring other employees. There are positions at construction sites, mines, and mills, and within the hospitality industry, government departments and small businesses.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

Leadership Skills Certificate of Achievement

Location

- Online

Start date

- Varies by course

For more information, contact Karla Elliott at 306-659-4638 or leadershipskills@saskpolytech.ca

Duration

- 180 hours

Admission requirements

- Grade 10 (with a recommended minimum two years of experience working in an industrial setting)

Note: Students do not apply to the program, but take courses part time and apply to graduate once all courses are completed.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

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<tbody>
<tr>
<td>LEAD 115</td>
<td>Leadership Principles</td>
</tr>
<tr>
<td>LEAD 116</td>
<td>Coaching and Teambuilding for Leaders</td>
</tr>
<tr>
<td>MGMT 115</td>
<td>Management Principles</td>
</tr>
<tr>
<td>MGMT 116</td>
<td>Business Management</td>
</tr>
<tr>
<td>MGMT 189</td>
<td>Managerial Skills</td>
</tr>
<tr>
<td>SUPR 115</td>
<td>Supervisory Skills</td>
</tr>
</tbody>
</table>

Plumbing and Pipefitting Applied Certificate

Location

- Regina
- Saskatoon

Start date

Register online at saskpolytech.ca or call 1-866-467-4278
August 26, 2019 - December 20, 2019

January 6, 2020 - May 1, 2020

Duration

- 17 weeks

Admission requirements

- Grade 11
- English Language Requirement

Program overview

Fast track your career in the skilled trades with Sask Polytech’s 17-week applied certificate program. Plumbers install, replace and maintain water and sewage systems in residential, commercial and industrial buildings. Many are also licensed gas fitters.

The Plumbing and Pipefitting program provides the knowledge and skills you need for an entry level job. Your learning is practical and hands-on – and includes a two-week job placement that lets you test your skills in the real world.

Plumbing is a skilled trade. The more education and experience you get, the higher you can climb on the wage-earning ladder. A fourth-year journeyperson plumber can earn double the hourly wage of a first-year plumbing apprentice.

The Plumbing and Pipefitting applied certificate program is delivered at Sask Polytech campuses in Regina and Saskatoon. It is also available off campus through Continuing Education and regional colleges.

For more information, contact flexible.learning@saskpolytech.ca

Apprenticeship Credit

Applied certificate programs can give you a head-start on apprenticeship. To learn how to apply academic credit toward Level 1 of the Plumber apprenticeship program, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

Successful completion of the Plumbing and Pipefitting applied certificate can open the door to entry level jobs with plumbing contractors and construction companies, as well as with maintenance departments in power, mining or manufacturing companies.

Transfer Credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

- DRAW 101 Blueprint Reading
- JOBS 125 Essential Job Skills
- PIPE 102 Pipe Fabrication Theory
- PIPE 103 Pipe Fabrication Shop
- PLMB 102 Codebook Theory
- PLMB 103 Gasfitting Theory
- PLMB 104 Gasfitting Shop
- SFTY 139 Trade Related Safety
- TOOL 118 Basic Tools and Materials Theory
- TOOL 119 Basic Tools and Materials Shop
- WLDR 135 Welding
- WORK 105 Work Experience

Refrigeration and Air Conditioning Certificate

Location

- Saskatoon

Start date

- September

Duration

- 34 weeks

Admission requirements

- Grade 12 with any 30 level mathematics*
- Minimum overall average of 60%
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:

- a 30-level math (no change for this program)

Program overview

There is steady demand for refrigeration and HVAC (Heating, Ventilation, Air Conditioning) specialists—in commercial, industrial and institutional settings. It is an apprenticeship trade, so you’ll find a clear path to a journeyperson’s ticket and excellent earning potential.

The job itself has a mechanical focus. You install, maintain and repair refrigeration and cooling systems. But it also involves
problem-solving skills, basic math skills, the ability to read and interpret specifications, and the ability to work with power tools and sophisticated technology.

The one-year Refrigeration and Air Conditioning certificate program is offered in Saskatoon. Experienced instructors help you develop the knowledge and skills you need to install, operate and service commercial and industrial refrigeration and HVAC equipment. Your training includes:

- basic refrigeration systems, cycles and components
- system installation
- electrical control systems
- graphics, math, hand tools
- mechanical and electrical skills
- refrigerants and refrigeration load calculation
- safety
- system design, installation, operation
- test and repair system components

Hands-on Training

You'll spend as much time getting “hands-on” experience in the shop as you do in the classroom. You’ll also participate in a work experience.

The Day-to-Day Job

Having a natural aptitude for mechanical and electrical equipment or systems is an asset; good problem-solving and customer service skills are a must.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

Our graduates are working in installation, service and sales. You could get a job with a refrigeration or air conditioning installation contractor, mine or mill site, manufacturing facility, food wholesaler, engineering firm, retail firm or service company.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<td>Fundamental Communication Skills</td>
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<tr>
<td>ELEC 138</td>
<td>Basic Electricity 1</td>
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<tr>
<td>ELEC 139</td>
<td>Basic Electricity 2</td>
</tr>
<tr>
<td>GRPH 181</td>
<td>Graphics</td>
</tr>
<tr>
<td>MATH 199</td>
<td>Mathematics</td>
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<tr>
<td>METL 181</td>
<td>Soldering</td>
</tr>
<tr>
<td>PIPE 182</td>
<td>Basic Piping Techniques</td>
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<tr>
<td>RFRG 150</td>
<td>Refrigerants</td>
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<tr>
<td>RFRG 151</td>
<td>Accessories</td>
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<tr>
<td>RFRG 180</td>
<td>Fundamentals of Refrigeration</td>
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<tr>
<td>RFRG 181</td>
<td>Basic Refrigeration Cycle</td>
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<td>RFRG 184</td>
<td>Basic Refrigeration System Components</td>
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<td>RFRG 186</td>
<td>Hermetic Compressor Motors</td>
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<td>RFRG 187</td>
<td>Defrost Systems and Piping</td>
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<td>RFRG 188</td>
<td>Refrigeration Load Calculation</td>
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<td>RFRG 189</td>
<td>Enthalpy and Psychrometrics</td>
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<td>RFRG 190</td>
<td>Capacity and Head Pressure Control</td>
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<td>RFRG 191</td>
<td>Basic System Installation</td>
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<td>System Design and Operation</td>
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<td>Mechanical and Electrical Skills</td>
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<tr>
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<td>Work Experience</td>
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</table>

Stucco Applicator

Applied Certificate

Location

- Delivery is subject to needs assessment.

Start date

- Varies

For more information, contact flexible.learning@saskpolytech.ca

Duration

- 10 weeks

Admission requirements

- Grade 10
- English Language Requirement

Program overview

As a student in the Stucco Applicator Applied Certificate program, you will learn how to select, mix and apply stucco to exterior walls to produce plain or decorative surfaces.
This program is delivered on campus through continuing education and off campus through regional college locations.

Career Opportunities

Stucco applicators are typically employed by exterior building products companies and stucco contractors.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

Courses

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<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
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<tr>
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<td>MATE 103</td>
<td>Materials</td>
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<td>MATH 159</td>
<td>Trade Mathematics</td>
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<td>SCAF 120</td>
<td>Scaffolds and Rigging</td>
</tr>
<tr>
<td>SFTY 129</td>
<td>Safety Awareness</td>
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<tr>
<td>STUC 100</td>
<td>Stucco Application</td>
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<td>STUC 101</td>
<td>Stucco Preparation</td>
</tr>
<tr>
<td>WORK 115</td>
<td>Work Experience</td>
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</tbody>
</table>
School of Health Sciences
SASK POLYTECH Programs

Addictions Counselling
Diploma

Location
- Online
- Prince Albert

Start date
September (on-campus program); Winter (online program)

Duration
- 80 weeks
  - Year 1 - 41 weeks; Year 2 - 39 weeks

Admission requirements
- Grade 12 with English Language Arts A30 and English Language Arts B30
- English Language Requirement specific to Addictions Counselling effective January 2020 (refer to Addictions Counselling in the ELP chart)

Note
- Accepted applicants are required to provide current immunization records.

Effective for 2019/20:
- All successful applicants must provide proof of Standard First Aid, CPR Health Care Provider ‘C’ AED or equivalent, and submit the results of a Criminal Record Check and Vulnerable Sector Search prior to commencement of the program. (When you are accepted to the program, you will be further advised of the required timelines for submission of the related documents. Please await further notice). The cost of CPR certification, the Criminal Record Check and Vulnerable Sector Search is your responsibility.
- Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.
- If you have experience(s) with a substance use disorder you will need to have reached a level of stability and functionality that will allow you to undertake this program of studies and to counsel others.
- It is strongly recommended that you consult with an academic program advisor at Saskatchewan Polytechnic if you have questions about your readiness for the program.

An interview and/or letter of intent may be required.

Program overview

It takes emotional maturity, good people skills and a strong sense of self to become an addictions counsellor. If you’re interested, the Addictions Counselling program at Saskatchewan Polytechnic will provide the training you need. The program is also the first in Canada to integrate mental health, addictions and First Nations philosophy.

Extensive training hours and experiential learning qualify you for jobs with community-based agencies, health authorities, non-profit organizations, school systems and private companies. Look for a position as a treatment counsellor, addictions educator, group home worker, case manager or employee/family assistance counsellor.

Addictions Counselling is a two-year diploma program offered at Saskatchewan Polytechnic Prince Albert Campus, and online. You’ll study cross-cultural and gender issues, gambling, pharmacology, drug abuse history in communities, prevention strategies and more. Instructors with real-world experience provide practical training in:

- administrative and communication skills
- integrated case management, motivational interviewing
- one-one and group counselling
- community mobilization, prevention and development projects
- community-based public education, health promotion sessions
- screenings, assessments, treatment plans and referrals
- suicide intervention and crisis intervention
- trauma and addictions

Experiential Learning

You’ll apply what you learn in class in simulated experiential learning labs. Skilled instructors provide coaching and monitoring as you practice suicide and crisis intervention skills, one-on-one counselling techniques and group counselling and mobilizing community prevention programs.

On-the-Ground Training

You’ll get hands-on training in the community, including a two-week clinical practicum in a detoxification setting and a 12-week clinical practicum in a mental health and addictions program setting. Saskatchewan Polytechnic’s extensive training hours and real-world experience provide professional skills and confidence, enabling you to transition smoothly into a counselling position on graduation.

Get a Degree

If you add an introductory course in corrections to your studies, when you graduate you’ll be eligible to transfer into third year of the four-year Bachelor of Applied Arts in Justice Studies at Lethbridge College in Alberta.

Transfer credit is available for:
School of Health Sciences
SASK POLYTECH Programs

- up to 42 credits towards a Bachelor of Social Work Degree (BSW) with the University of Regina Social Work Degree Program at the University of Regina, Regina Saskatchewan
- up to 51 credits towards the Addictions Counselling Degree (B.Hsc.) program through the University of Lethbridge, Lethbridge Alberta
- up to 30 credits towards a Bachelor of Arts Degree (BA) Briercrest College and Seminary, Briercrest Saskatchewan

Nationally Recognized Training

The program is sanctioned by both the Addictions Professionals Association of Saskatchewan (APASK, www.apask.org) and the Canadian Addictions Counsellor Certification Federation (CACCF, www.caccf.ca). It also exceeds national workforce competencies developed by the Canadian Centre on Substance Abuse (CCSA). This means your training is relevant in today’s job market.

On graduation, you’ll be eligible for membership in the Addictions Professionals Association of Saskatchewan (APASK). You’ll also be able to apply your training hours as recognized clinical supervision to achieve full certification as an addictions counsellor or prevention worker through the CACCF.

Career Opportunities

Look for career opportunities with provincial and federal health agencies, non-profit organizations, school systems, private companies and with community-based agencies such as the National Native Alcohol and Drug Abuse Program and the Métis Addictions Council of Saskatchewan.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx  For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

### Year 1 - Semester 1

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<tr>
<td>CDEP 155</td>
<td>Behaviour and Drug Dynamics</td>
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<tr>
<td>CDEP 158</td>
<td>Substance Use Disorders/Disorder Patterns</td>
</tr>
<tr>
<td>CDEP 161</td>
<td>Erosion of Addicted Families</td>
</tr>
<tr>
<td>CDEP 179</td>
<td>Detoxification and Recovery Processes</td>
</tr>
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<td>CDEP 180</td>
<td>Family Systems and Abuses</td>
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<td>CLTR 148</td>
<td>Valuing Diversity</td>
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<td>MHA 147</td>
<td>Personal Health Strategies</td>
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<tr>
<td>MHA 148</td>
<td>Mental Health and Addictions Professionals</td>
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</tbody>
</table>

### Year 1 - Semester 2

- CDEP 172  Communications in Mental Health and Addictions
- CDEP 176  Human Relations in Mental Health and Addictions
- CDEP 177  Conflict Resolution in Mental Health and Addictions
- CDEP 178  Fetal Alcohol Spectrum Disorder
- CDEP 181  Special Needs in Mental Health and Addictions
- ETHC 140  Ethics in Mental Health and Addictions
- HUMD 144  Life Span Issues
- MHA 143  Concurrent Disorders
- MHA 144  Process Addictions
- MHA 149  Mental Health Disorders and Medical Issues

### Year 1 - Semester 3

- COUN 151  Brief Screenings
- COUN 152  Suicide Interventions
- COUN 154  Addictions Counselling Theory
- COUN 157  Motivational Interviewing
- COUN 158  Assessments and Recovery Plans
- PRAC 247  Detoxification Practicum

### Year 2 - Semester 4

- ADMN 251  Administrative Functions
- ADMN 253  Industry Documentation
- CDEP 246  Presentation Skills
- CDEP 247  Trauma and Addictions
- COUN 155  Addictions Counselling Practice
- COUN 239  Addictions Group Counselling
- COUN 241  Counselling Modalities

### Year 2 - Semester 5

- CDEP 169  Community Engagement
- CDEP 170  Prevention Programs
- COUN 156  Addictions and Intervention Strategies
- COUN 244  Addictions Group Design
- COUN 245  Addictions Group Facilitation
- HLTH 240  Health Promotion
- PRAC 253  Assessments in Addictions Services

### Year 2 - Semester 6

- PRAC 254  Treatment Planning in Addictions Services

### Advanced Care Paramedic Diploma

#### Location

- Regina
- Saskatoon

#### Start date

December – Saskatoon; August - Regina

#### Duration

- 65 weeks
Polytechnic's nationally recognized Advanced Care Paramedic (ACP) program will be of interest to you. More in-depth knowledge and training means you'll be able to administer a greater range of medications and perform life-saving interventions.

The Advanced Care Paramedic program also positions you for leadership roles in a growing number of settings. ACPs are in high demand in traditional emergency medical services, collaborative emergency centres, and industrial and community settings.

Advanced Care Paramedic is a two-year diploma program offered through Saskatchewan Polytechnic Saskatoon campus. The program builds on the Primary Care Paramedic program. You'll get advanced training in recognizing and managing medical and trauma emergencies, particularly neonatal, pediatric and geriatric. You'll focus on:

- anatomy, pathophysiology, physiology, pharmacology
- body system assessments
- critical thinking and decision making
- certifications in
  - Advanced Cardiac Life Support (ACLS)
  - Advanced International Trauma Life Support (ITLS)
  - Pediatric Advanced Life Support (PALS)

Hands-on Learning

- Lab and Simulation Training - You'll use Saskatchewan Polytechnic's state-of-the-art lab and high-fidelity simulation facilities to apply your in-depth knowledge to real-world scenarios.
- Field Practicums - You'll work with an ACP preceptor in two supervised field practicums to hone your critical thinking and decision-making skills, and to strengthen your delegation and leadership skills.
- Clinical Practicums - Hone your assessment, management and communication skills during two hospital-based practicums. You'll get real-world experience in specialized areas, including emergency departments, operating rooms, and labour and delivery.

Career Opportunities

Take your career (and your earning power) to the next level as an advanced care paramedic in emergency medical services, including fire, ambulance, air ambulance and STARS operations. Take a leadership role on emergency response teams at industrial facilities or mine sites. Take advantage of emerging career opportunities in collaborative emergency centres and in the community.

For more information about career opportunities related to this program, contact Student Employment Services at the Saskatchewan Polytechnic campus nearest you or check out the Saskatchewan College of Paramedics job postings.

Transfer credit

If you're a primary care paramedic who wants to enhance your skills, career mobility and earning power, Saskatchewan Polytechnic graduates are granted admission to this program on a case-by-case basis.

Note

- Accepted applicants will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search upon admission to the program. At the discretion of the practicum/clinical agency, you may be declined access to a clinical/practicum based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.
- Accepted applicants are required to provide evidence of Transferring Lifting Repositioning (TLR®) certification prior to entry into clinical/practicum
- Accepted applicants are required to provide current immunization records and meet Saskatchewan Polytechnic immunization requirements prior to entry into clinical/practicum
- Accepted applicants are required to provide evidence of current N95 respirator mask testing prior to entry into the clinical practicum. The cost of N95 respirator mask testing is your responsibility.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview

- Year 1 - 30 weeks; Year 2 - 35 weeks

Admission requirements

- Primary Care Paramedic certification from an accredited program or equivalent
- Registered as a PCP of the 2011 National Occupational Competency Profile for Paramedics training (Paramedic Association of Canada, 2011)
- International Trauma Life Support (ITLS) Provider certificate
- CPR Health Care Provider ‘C’ AED or equivalent
- English Language Requirement

* Evidence of verification may include one of the following:
  - a Saskatchewan Polytechnic transcript indicating successful completion of all Primary Care Paramedic courses implemented during the 2013-2014 academic year or later;
  - a Saskatchewan Polytechnic transcript indicating successful completion of Primary Care Paramedic Upgrade (EMER 1638);
  - a valid Saskatchewan College of Paramedics licence indicating unrestricted practice of 2011 National Occupational Competency Profile at the Primary Care Paramedic level

Non-Saskatchewan Polytechnic graduates are granted admission to this program based on the contents of the Criminal Record Check and Vulnerable Sector Search upon admission to the program. At the discretion of the clinical/practicum based on the contents of the Criminal Record Check and Vulnerable Sector Search upon admission to the program. At the discretion of the clinical/practicum based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.

For more information about career opportunities related to this program, contact Student Employment Services at the Saskatchewan Polytechnic campus nearest you or check out the Saskatchewan College of Paramedics job postings.
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-saskpolytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-saskpolytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

### Courses

#### Semester 1
- **ANAT 167** Anatomy and Physiology 1
- **EMER 105** Advanced Respiratory Management
- **EMER 106** Interpersonal Communications and Patient Assessment
- **EMER 158** Transition to Advanced Care Paramedic
- **EMER 159** Patient Management and Integration 1
- **EMER 175** Medical 1
- **EMER 178** Advanced Cardiac Management
- **FTNS 162** Personal Wellness 1
- **PATH 100** Pathophysiology 1
- **PHAR 171** Pharmacology

#### Semester 2
- **PRAC 108** Field Practicum 1
- **PRAC 109** Clinical Practicum 1

#### Semester 3
- **ANAT 267** Anatomy and Physiology 2
- **EMER 200** Specialized Therapeutics
- **EMER 201** Obstetrics, Gynecology and Pediatrics
- **EMER 262** Medical 2
- **EMER 270** Advanced Trauma Management
- **EMER 279** Diverse Population Groups
- **EMER 281** Patient Management and Integration 2
- **FTNS 163** Personal Wellness 2
- **LEAD 100** Leadership, Professionalism and Ethics
- **PATH 200** Pathophysiology 2

#### Semester 4
- **PRAC 212** Field Practicum 2
- **PRAC 213** Clinical Practicum 2

Note: You must successfully complete **EMER 158** (Advanced Care Preparation) before continuing in the program.

### Admission requirements

- Grade 12 with a minimum grade of 70% in English Language Arts A30, English Language Arts B30, Foundations of Math 30 or Pre-Calculus 30*, Physical Science 20*, Chemistry 30 and Biology 30
- English Language Requirement

*Previous Saskatchewan mathematics and physics requirements also accepted:
- Minimum of 70% in Math B30
- Minimum of 70% in Physics 20

### Note

- Physics 30 will not be substituted for Physical Science 20 or Physics 20.
- Accepted applicants are required to provide evidence of CPR Health Care Provider (HCP), CPR Basic Life Support (BLS), CPR Level ‘C’ AED or equivalent certification upon admission into the program. CPR certification is valid for two (2) years from the date of completion regardless of the length of time indicated by the provider of the card or certificate. Recertification may be required during your studies. The cost of CPR certification is your responsibility.
- Accepted applicants will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search upon admission into the program. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.
- Accepted applicants are required to provide evidence of current immunization records and meet Saskatchewan Polytechnic immunization requirements prior to entry into clinical practicums.
- Accepted applicants will be required to provide evidence of Transferring Lifting Repositioning (TLR®) certification upon admission into the program. TLR® certification is valid for three (3) years from the date of completion. Recertification may be required during your studies. The cost of TLR® certification is your responsibility.
- Accepted applicants are required to provide evidence of current N95 respirator mask testing upon admission into the program. N95 respirator mask testing is valid for two (2) years from the date of completion. Retesting may be required during...
your studies. The cost of N95 respirator mask testing is your responsibility.

- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview

If you’re interested in a career in health care - one that lets you work in rural communities and offers excellent earning potential - Saskatchewan Polytechnic’s Combined Laboratory and X-Ray Technology program will interest you.

Combined laboratory and X-ray technologists (CLXTs) are unique. You’re trained in medical laboratory, X-ray procedures and electrocardiography, so you need to be comfortable working with medical imaging and laboratory equipment. But you also need to be comfortable working with people because positioning and touching patients, as well as talking with them, is an important part of your job.

The Combined Laboratory and X-Ray Technology program is a two-year diploma program offered at Saskatchewan Polytechnic, Saskatoon Campus, Idylwyld Dr. You’ll develop the knowledge and skills you need to perform laboratory tests, general radiography and electrocardiograms. Your studies will focus on:

- anatomy and physiology
- clinical chemistry, hematology, urinalysis
- electrocardiography
- image acquisition
- laboratory procedures and quality management
- lab result correlation
- patient care
- radiographic procedures

Being a CLXT demands high standards and good empathy, so Saskatchewan Polytechnic also helps build professional skills such as teamwork, problem-solving and communication. When you graduate, you’ll be eligible to work as a CLXT and apply for membership in the Saskatchewan Association of Combined Laboratory and X-Ray Technicians (SACLXT).

Extensive Hands-On Learning

Saskatchewan Polytechnic uses hands-on learning to help you build your knowledge and skills. An in-depth clinical simulation prepares you for three real-world practicums. The first gives you experience in operating radiographic equipment to obtain diagnostic images, the second in performing electrocardiographs and the third in conducting routine laboratory procedures. By the time you graduate, you’ll have 29 weeks of supervised clinical experience.

Note that your clinical experiences can take place anywhere in the province.

Diploma to Degree

Use your Combined Laboratory and X-Ray Technology diploma to ladder into a degree program at the University of Regina, First Nations University of Canada or Athabasca University (Alberta). A degree is usually required if you are interested in moving into management or teaching positions.

Career Opportunities

Combined laboratory and X-ray technologists can work in either rural or urban communities, but you’ll find your skills most “in demand” in rural areas. In rural hospitals and health centres, you’ll use the full range of your skills and play an integral role on health care teams.

International applicants are not currently considered for admission.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

**Year 1**

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<td>APHY 282</td>
<td>Anatomy and Physiology 2</td>
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<tr>
<td>CHEM 176</td>
<td>Clinical Chemistry 1</td>
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<td>CHEM 184</td>
<td>Urinalysis</td>
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<td>Electrocardiography</td>
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<td>ETHC 181</td>
<td>Patient Care in Radiography 1</td>
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<td>ETHC 185</td>
<td>Professional Practices 1</td>
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<td>Immunology</td>
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<td>IMRC 182</td>
<td>Image Recording Introduction</td>
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<td>Image Acquisition &amp; Processing</td>
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<td>Infection Control and Safety</td>
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<td>Physics</td>
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<td>General Laboratory Practice</td>
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<td>Specimen Collection and Handling</td>
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<td>RGAN 180</td>
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<td>Radiation Science and Apparatus 1</td>
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**Year 2 - Semester 1**

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<tr>
<td>PATH 181</td>
<td>Laboratory Result Correlation</td>
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</tbody>
</table>
Community Paramedic
Advanced Certificate

Location
- Online
- Saskatoon

Start date
September

Duration
- 30 weeks

Admission requirements
- Current Paramedic Licence
- Primary Care Paramedic or Advanced Care Paramedic certification from an accredited program or equivalent
- Verification of 2011 National Occupational Competency Profile for Paramedics training (Paramedic Association of Canada, 2011) *
- Minimum two years work-related experience (you must provide verification of your work experience)
- English Language Requirement

* Evidence of verification may include one of the following:

- a Saskatchewan Polytechnic transcript indicating successful completion of all Primary Care Paramedic courses implemented during the 2013-2014 academic year or later;
- a Saskatchewan Polytechnic transcript indicating successful completion of Primary Care Paramedic Upgrade (EMER 1638);
- a valid Saskatchewan College of Paramedics licence indicating unrestricted practice of 2011 National Occupational Competency Profile at the Primary Care Paramedic level.

Note: Non-Saskatchewan Polytechnic graduates will be granted admission to this program on a case-by-case basis.

Program overview

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<td>RDBG 184</td>
<td>Radiobiology and Protection</td>
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<td>RDGR 283</td>
<td>Advanced Radiographic Technique 1</td>
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<td>SIMU 280</td>
<td>Clinical Simulation</td>
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</table>

Our communities are experiencing increasing demand on healthcare services where residents have limited access to the services required. That's where the community paramedic comes in. Community paramedics use their mobile care response skills to bring services to members of the community who may not be able to access available services otherwise. They work collaboratively with health-care professionals in the community to provide faster and more efficient health-care services.

The Community Paramedic advanced certificate program will enhance your training as a primary care or advanced care paramedic to focus on prevention, client education, geriatrics, palliative care, mental health and addictions, and chronic disease management. It builds on the on-site expertise and knowledge you have already obtained so you can apply it to caring for patients in their homes and community.

Community Paramedic is a 30-week program offered via a combination of online learning and hands-on lab and clinical practice experiences through Saskatchewan Polytechnic Saskatoon Campus. On-site labs and community-based clinical experiences will enable you to apply the knowledge, theory and skills you acquire in a variety of environments. You will spend 53 hours in hands-on, practical labs building your competency in specialized skills. During a clinical practicum, you will be able to use these skills in the real world. Your practicum may be completed in a variety of settings such as long-term care, mental health, community clinics and more.

Career Opportunities

Community paramedic is a rewarding career with an expanding range of job opportunities. Graduates from the program may be employed by ambulance services or health authorities. Roles can include opportunities in collaborative emergency centres, mobile health units and community services.

For more information about career opportunities related to this program, contact Student Employment Services at the Saskatchewan Polytechnic Saskatoon campus nearest you or check the Saskatchewan College of Paramedics job postings.

Transfer credit

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Courses

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<td>HLTH 100</td>
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<td>HLTH 101</td>
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School of Health Sciences
SASK POLYTECH Programs

Register online at saskpolytech.ca or call 1-866-467-4278

<table>
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<td>Community Paramedic Role and Prevention</td>
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<td>HLTH 103</td>
<td>Community Assessment</td>
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<td>MHA 100</td>
<td>Mental Health and Addictions</td>
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<td>Palliative Care</td>
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<td>Semester 2</td>
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<tr>
<td>PRAC 113</td>
<td>Community Paramedic Practicum</td>
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</tbody>
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Continuing Care Assistant Certificate

Location
- Online
- Prince Albert
- Regina
- Saskatoon

Start date
- Fall (Prince Albert, Regina, Saskatoon); Winter (Prince Albert; international students)

Duration
- 32 weeks

Admission requirements
- Grade 12 or successful completion of fifteen (15) post-secondary credits from a recognized institution
- English Language Requirement

Note
- Applicants should have personal and physical suitability.
- Accepted applicants may be required to undergo an interview and will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search prior to entering the clinical component of the program. At the discretion of the clinical agency, you may be declined access to a clinical placement based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and the Vulnerable Sector Search is your responsibility.
- Standard First Aid and CPR Heart Saver ‘C’ AED or equivalent are required prior to entry into clinical.
- Accepted applicants are required to provide current immunization records.
- Accepted applicants are required to provide evidence of current N95 respirator mask testing prior to entry into the clinical practicum. The cost of N95 respirator mask testing is your responsibility.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program.

Program overview

Demand for health-care workers is high, and that includes demand for continuing care assistants. If you enjoy caring for others, and if you want to get into the workforce quickly, Saskatchewan Polytechnic’s Continuing Care Assistant program might be just what you’re looking for.

As a continuing care assistant, you’ll work directly with clients in long-term care, home care, assisted living, some areas in acute care, and even special needs classrooms. You’ll help them with mobility, personal care, assisting them to eat their meals, and medication monitoring. It’s a face-to-face, people-focused job.

Saskatchewan Polytechnic’s Continuing Care Assistant program is a one-year certificate program that you can take in Saskatoon, Regina or Prince Albert. You can also take it through your local regional college or through part-time distance Flexible Learning.

Note: The winter delivery of the program in Prince Albert is marketed almost exclusively to international students with a study permit, although it may be available to domestic students as well.

The program combines hands-on classroom learning with practical clinical experience. You’ll build knowledge and skills in:

- addressing individual psychosocial needs;
- administering personal care;
- dementia management strategies;
- gerontology (a major area of study);
- long-term care philosophy in different settings;
- promoting independence in a safe environment;
- working with individuals with different physical and cognitive impairments; and/or
- working with people of different cultures.

Your clinical work experiences will give you a taste of different work settings. Under the supervision of a buddy or staff member, you’ll work directly with clients in home care, long-term care and acute care settings. It’s a great way to build your skills and your confidence.

Is it a fit?

Continuing care assistants have been called “the eyes and ears of the frail and vulnerable.” You need to be a caring, patient person, with an upbeat attitude and good people skills. Your most important asset is simply a desire to improve quality of life for others.

Career Opportunities

Continuing Care Assistant graduates enjoy high employment rates. You could work in a home care setting, long-term care facility, private care home, acute care facility, integrated facility, supportive...
housing or special needs classroom. You’ll work as part of a health-care team under the supervision of registered nurses, registered psychiatric nurses or licensed practical nurses.

Look for job postings in Saskatchewan’s 12 regional health authorities or the Athabasca Health Authority.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

Courses

**Semester 1**
- ANAT 100 Body Systems
- CLIN 100 Clinical-1 Special Care
- COMM 291 Interpersonal Communications
- DEMC 183 Dementia Behaviour
- SFTY 194 Professional Assault Response Training (PART) ©
- SPCR 100 Transferring Lifting Repositioning (TLR®) ©
- SPCR 101 Observing, Reporting, and Recording
- SPCR 104 Personal Care 1
- SPCR 105 Personal Care 2
- SPCR 180 Safe Environment
- SPCR 192 Personal Competence

**Semester 2**
- CLIN 219 Clinical-2 Special Care
- CLIN 232 Clinical Home Care/Community Services
- COMM 197 Helping Skills
- DEMC 280 Dementia Family Care
- HUMD 187 Human Growth and Development
- NUTR 198 Nutrition
- SANT 181 FOODSAFE Level 1
- SPCR 102 End of Life Care
- SPCR 103 Assisting with Special Procedures
- SPCR 184 Post Acute Care
- SPCR 284 Special Needs 1
- SPCR 285 Special Needs 2

Note: Students must be admitted to the program before taking the following courses: SPCR 103, SPCR 184, CLIN 100, CLIN 219, and CLIN 232.

Cytotechnology Diploma

Location
- Saskatoon

Start date
- September

Duration
- 86 weeks:
  - Year 1 - 41 weeks; Year 2 - 45 weeks

Admission requirements

- Grade 12 with English Language Arts A30, English Language Arts B30, Foundations of Math 30 or Pre-Calculus 30*, Physical Science 20*, Chemistry 30 and Biology 30
- Minimum of 70% in Foundations of Math 30 or Pre-Calculus 30 and each science
- English Language Requirement

*Previous Saskatchewan mathematics and physics requirements also accepted:
- Minimum of 70% in Math B30
- Minimum of 70% in Physics 20

Note

- Physics 30 will not be substituted for Physical Science 20 or Physics 20.
- Accepted applicants will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search upon admission into the program. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.
- Accepted applicants are required to provide current immunization records and meet Saskatchewan Polytechnic immunization requirements prior to entry into clinical practicum.
- You must attend an informational meeting with program personnel.
- Accepted applicants are required to provide evidence of CPR Health Care Provider (HCP), CPR Basic Life Support (BLS), CPR Level ‘C’ AED or equivalent certification upon admission into the program. CPR certification is valid for two (2) years from the date of completion regardless of the length of time indicated by the provider of the card or certificate. Recertification may be required during your studies. The cost of CPR certification is your responsibility.
- Accepted applicants are required to provide evidence of current N95 and canister respirator mask testing upon admission into the program. N95 and canister respirator mask testing is valid for two (2) years from the date of completion. Retesting may be required during your studies. The cost of N95 and canister respirator mask testing is your responsibility.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized
Program overview

Cytotechnology is the microscopic study of cells for disease, and cytotechnologists are its trained practitioners. They are front-line investigators who use their skills to help health care teams solve complex puzzles of disease and illness.

Saskatchewan Polytechnic's nationally accredited two-year Cytotechnology diploma program emphasizes a hands-on approach to learning. You'll develop the knowledge and skill necessary to diagnose disease by identifying alterations in cell morphology (forms).

Your studies will focus on:
- introductory anatomy, physiology and molecular biology
- gynecologic, respiratory and aspiration cytopathology
- hematology
- immunology

First-year classroom learning is augmented by lab work, where you will learn to perform basic procedures and begin developing your detection skills. During your 46 weeks of clinical experience, you will participate in six separate practicums, each focused on building your knowledge and skills in specific areas and techniques.

Diploma to Degree

Use your Cytotechnology diploma to ladder into a degree program at the University of Regina, First Nations University of Canada or Athabasca University (Alberta). A degree is usually required if you are interested in moving into management or teaching positions.

How does it fit?

Cytotechnologists are natural scientists - people who are curious about the human body and enjoy using microscopes to explore its inner workings. Cytotechnology is a profession that demands a high degree of accuracy, strong decision-making skills and the ability to take responsibility for your work.

Career Opportunities

Graduates certified by the Canadian Society for Medical Laboratory Science can work anywhere in Canada. Most cytotechnologists work in hospital or private clinical laboratories in large urban centres.

Day-to-day responsibilities generally include preparing slides for microscopic examination; evaluating cells for the presence of cancer, precancerous changes or infection and providing interpretations to pathologists. Your interests could also take you in a different direction - to a career in education or sales, for example.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

Year 1
- APHY 191 Anatomy and Physiology 1
- APHY 282 Anatomy and Physiology 2
- BIOL 181 Molecular Biology
- CLIN 292 Clinical Molecular Biology
- CYTO 180 Gynecologic Cytology Theory 1
- CYTO 181 Gynecologic Cytology Lab 1
- CYTO 182 Respiratory Cytology 1
- CYTO 184 Aspiration Cytology 1
- CYTO 280 Gynecologic Cytology Theory 2
- CYTO 281 Gynecologic Cytology Lab 2
- CYTO 282 Respiratory Cytology 2
- CYTO 283 Aspiration Cytology 2
- CYTO 286 Body Fluid Analysis
- CYTO 287 Gastrointestinal Cytology
- ETHC 185 Professional Practices 1
- ETHC 280 Professional Practices 2
- HEMA 191 Fundamental Hemopathology
- HSTC 184 Microanatomy
- HSTC 185 Histotechnology 1
- HSTC 187 Histotechnology 2
- IMMU 183 Immunology
- INFC 180 Infection Control and Safety
- MTER 180 Medical Terminology
- PATH 185 Introductory Cytopathology 1
- PATH 280 Introductory Cytopathology 2
- PATH 281 Introductory Cytopathology 3
- PROC 182 Cytology Lab Procedures
- SIMU 282 Simulation Laboratory

Year 2
- CLIN 287 Clinical Histotechnology
- PRAC 291 Cytology Practicum 1
- PRAC 292 Cytology Practicum 2
- PRAC 294 Cytology Practicum 3
- PRAC 295 Cytology Practicum 4

Note: Labs, projects and practicums are used to actively involve you in the learning process and allow you to apply learned theory as you develop your skills.

Dental Assisting Certificate

Location
School of Health Sciences
SASK POLYTECH Programs

- Regina

Start date
- August

Duration
- 40 weeks

Admission requirements
- Grade 12 with a minimum overall average of 65% in English Language Arts A30, English Language Arts B30, Biology 30, and the highest grade in either Foundations of Math 20, Foundations of Math 30, or Pre-Calculus 30* (For Special Admission purposes, Grade 12, or GED, or equivalent is required in addition to ACCUPLACER)
- English Language Requirement

Note
- Standard First Aid and CPR Heartsaver " C" AED or equivalent are required prior to entry into the Dental Assisting program and must be current to the year of the program.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

*Previous Saskatchewan mathematics requirement also accepted:
- Highest grade in a 20 or 30 level math

Program overview
Dental assistants play many roles, from chair-side assisting to client education to office reception. It’s a client-focused, team-based work environment. This makes attention to detail, commitment to high standards, good decision-making skills and good communication skills a must.

As part of a dental team, you’ll assist dentists, dental hygienists and dental therapists in the provision of quality care either in private dental practices or in various community-based settings such as health care or educational institutions.

Note
International applicants are not currently considered for admission to this program.

Sask Polytech’s nationally accredited, one-year Dental Assisting certificate program is offered at Saskatchewan Polytechnic Regina campus. You’ll learn from experienced instructors using up-to-date dental equipment and techniques. You’ll develop knowledge and skills in:
- providing chair-side support for diagnostic, assessment, restorative and specialty procedures
- performing intra-oral procedures as specified by Saskatchewan legislation
- performing business and reception procedures
- counselling patients in regard to maintaining oral health

Real-World Training
Hands-on learning in the dental clinic at the Regina campus is a highlight of the program. The clinic gives you a chance to gain clinical experience each week practicing your skills and building your confidence under the supervision of licensed professionals. You’ll also participate in three weeks of clinical experiences, each one giving you on-the-ground training in an actual dental practice.

Career Opportunities
When you graduate, you’ll be qualified to work in many different settings including private dental offices, community health clinics, educational facilities, health care institutions and insurance and dental supply companies.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

Semester 1
APHY 160 Essentials of Human Anatomy and Physiology
DENT 159 Preventive Dentistry and Nutrition
DENT 166 Oral Embryology, Histology and Anatomy
DNTL 167 Infection Prevention & Control
DNTL 168 Moisture Control
DNTL 169 Permanent Restorative Procedures
DNTL 171 Dental Restorative Materials
DNTL 172 Clinical Foundations
DNTL 173 Fundamentals of Dental Assisting
RDGR 161 Radiography 1

Semester 2
CLIN 110 Clinical Dental Assisting Practice 1
DENT 180 Dental Technology
DENT 282 Dental Specialties
DNTL 174 Dental Communication and Practice Management
DNTL 262 Client Care Procedures
PATH 262 General/Oral Pathology and Pharmacology
PRAC 115 Orientation Practicum
RDGR 162 Radiography 2

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020 70
Dental Hygiene
Advanced Diploma

Location
- Regina

Start date
- September

Duration
- 100 weeks
  - Year 1 - 32 weeks; Year 2 - 36 weeks; Year 3 - 32 weeks

Admission requirements
- Grade 12 with a minimum overall average of 70% in English Language Arts A30, English Language Arts B30, Biology 30, Chemistry 30, and one of Foundations of Mathematics 30 or Pre-Calculus 30*
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:
- One of Math A30, B30, C30, or Calculus 30

Note
- Standard First Aid and CPR Heartsaver ‘C’ AED or equivalent are required prior to entry into the Dental Hygiene program and must be current to the year of the program.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview

Note

The Dental Hygiene program is subject to the high-demand admission process. It opens for application on October 1, and closes on February 15, each academic year. On February 15, paper applications are accepted until 4:30 p.m., and online applications are accepted until 11:59 p.m. (Saskatchewan times). All supporting documentation is required by 4:30 p.m. (Saskatchewan time) on March 1.

As a dental hygienist, it’s your job to provide preventive, educational and therapeutic dental hygiene services to a wide range of clients - from the very young to the very old. Whether you work in a private dental practice or for a health district, in an educational system or for a government agency, you’ll need excellent manual dexterity and good people skills.

Problem solving and critical thinking skills are vital, because a big part of your job is effectively assessing clients and providing treatment plans. Lifelong learning is also important, because you’ll participate in continuing education to stay abreast of changes in technology and techniques.

International applicants are not currently considered for admission to this high-demand program.

Dental Hygiene is a nationally accredited three-year advanced diploma program offered at Saskatchewan Polytechnic, Regina Campus. Classroom and lab work combined with clinical experiences and health promotion activities prepare you to deliver a high standard of service in assessment, diagnosis, planning, implementation and evaluation of dental hygiene care. Your studies will focus on:
- oral health education and promotion
- clinical practice
- provision of ethical and professional dental hygiene care

Hands-On Learning in Our Dental Clinic

Hands-on learning in the dental clinic at Saskatchewan Polytechnic, Regina Campus is a great way to integrate classroom learning with real-world practice. Under the supervision of licensed dentists and dental hygienists, get first-hand experience in providing comprehensive dental hygiene care including assessment of oral health, instruction in oral self-care, exposing dental X-rays and more.

Diploma to Degree

This Saskatchewan Polytechnic advanced diploma program will allow graduates to access one-year Dental Hygiene degree completion programs offered by Dental Hygiene baccalaureate programs.

Career Opportunities

Dental hygienists work in both public and private sectors. General dental practices are major employers, but there also are job opportunities in specialized dental practices, community clinics, health care institutions, educational facilities and government agencies.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

**Year 1 - Semester 1**
- BIOL 100 Human Anatomy and Physiology 1
- CHEM 102 General Chemistry 1
- ENGL 101 Critical Reading and Writing
- MICR 261 Microbiology
- PSYC 102 Introduction to Psychology 1
- STAT 100 Introductory Statistics

**Year 1 - Semester 2**
- ANAT 163 Dental Anatomy
- BIOL 101 Human Anatomy and Physiology 2
- CHEM 103 General Chemistry 2
- ENGL 102 Literature Survey
- PSYC 103 Introduction to Psychology 2
- SOCI 171 Culture and Diversity in Canadian Society

**Year 2 - Semester 3**
- ANAT 164 Embryology and Histology
- ANAT 166 Anatomy and Physiology of the Head and Neck
- DENT 164 Preventive Dentistry 1
- DHYG 157 Dental Hygiene Fundamentals 1
- DHYG 161 Health and Safety in the Dental Environment
- DHYG 164 Assessment 1
- DHYG 200 Introduction to Clinical Dental Hygiene
- DHYG 256 Assessment 2
- DHYG 257 Dental Hygiene Fundamentals 2

**Year 2 - Semester 4**
- DENT 262 Preventive Dentistry 2
- DENT 263 Periodontology 1
- DHYG 165 Preventive Techniques
- DHYG 201 Clinical Dental Hygiene 1
- DHYG 258 Care Planning for Clinical Dental Hygiene
- DHYG 259 Dental Hygiene Fundamentals 3
- DHYG 279 Clinical Integration 1
- HLTH 282 Community Oral Health 1
- PATH 268 General Pathology
- RDGR 267 Radiology Theory
- RDGR 268 Dental Imaging Techniques

**Year 2 - Semester 5**
- DHYG 276 Clinical Dental Hygiene 2
- DHYG 283 Clinical Integration 2
- NUTR 201 Nutrition

**Year 3 - Semester 6**
- ANES 262 Local Anesthesia
- DENT 165 Dental Technology
- DENT 267 Periodontology 2
- DHYG 277 Clinical Dental Hygiene 3
- DHYG 281 Clinical Integration 3
- HLTH 274 Community Oral Health 2
- PATH 269 Oral Pathology
- PHAR 266 Pharmacology

**Year 3 - Semester 7**
- DENT 269 Dental Specialties 2
- DHYG 269 Dental Hygiene Practice
- DHYG 278 Clinical Dental Hygiene 4
- DHYG 282 Clinical Integration 4
- HLTH 275 Community Oral Health Projects

Health Information Management

Diploma

**Location**
- Online
- Regina

**Start date**
- September (on campus); ongoing from September to March

**Duration**
- 71 weeks:
  - Year 1 - 38 weeks; Year 2 - 33 weeks

**Admission requirements**
- Grade 12 with a minimum overall average of 65% in the following subjects: English Language Arts A30, English Language Arts B30, Foundations of Math 30 or Pre-Calculus 30*, one 30-level science (one of Biology, Chemistry or Physics)
- Minimum keyboarding speed of 30 words per minute with 90% accuracy (5-minute testing report to be submitted with transcripts). (Testing is available through a Saskatchewan Polytechnic Test Centre).
- English Language Requirement

**Note**
- Accepted applicants will be required to provide evidence of a Criminal Record Check upon admission into the program. At the discretion of the practicum/clinical agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check. The cost of the Criminal Record Check is your responsibility.
- Practicum placements are located throughout Saskatchewan; therefore, all students must be willing to relocate in order to complete their practicum experiences.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.
School of Health Sciences
SASK POLYTECH Programs

*Previous Saskatchewan mathematics requirement also accepted:

- one 30-level math

Program overview

If you’re detail oriented, self motivated and want a unique career in the health-care industry, consider Saskatchewan Polytechnic’s Health Information Management program. You’ll learn how to collect, organize and manage large amounts of health information, all while meeting privacy standards.

You could work as a health information management practitioner, coordinator or analyst with health regions as well as public and private health agencies-hospitals to cancer clinics and government agencies. Your unique skill set can also open doors to jobs with police forces, educational institutions, law offices, insurance companies and pharmaceutical firms.

Health Information Management is a nationally accredited two-year diploma program offered at our Regina campus and through distance Flexible Learning. Learn from experienced instructors as you build knowledge and leadership skills in:

- data collection, coding and quality;
- electronic health information management (e-HIM®);
- information privacy, security and confidentiality;
- interpretation and analysis of health data;
- patient access to health information;
- records and systems management; and
- transition to the electronic health record.

Work Experience

The program includes two work-based practicums: one in first year, one in second year. It’s a chance to apply your new knowledge and skills in an actual health agency setting. By the time you graduate, you’ll already have 15 weeks of real-world experience - something you can highlight to potential employers.

Diploma to Degree

Use your Saskatchewan Polytechnic diploma to transfer into the third year of a four-year Kinesiology, Health Studies or Arts degree program at the University of Regina or First Nations University of Canada.

Get More Information

For more information on the HIM program, please contact Loretta at loretta.ryan@saskpolytech.ca

Career Opportunities

Health Information Management graduates work as information management practitioners, coordinators and analysts in many different areas of health care including hospital admitting, quality management, research and statistics, information systems, utilization management and risk management. Look for positions with health regions, government agencies, community clinics, long-term care facilities, home care agencies and mental health or outreach programs. Or transfer your skill set into other areas such as education, law enforcement, insurance and research.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx)

Courses

**Year 1 - Semester 1**

APHY 100 Anatomy and Physiology 1
CLIN 101 Clinical - Records Management and Professionalism
CLIN 102 Clinical - Coding 1
COMP 174 Introduction to Microsoft Excel 1
COMP 179 Introduction to PowerPoint
ENGL 101 Critical Reading and Writing
HINF 160 Health Record Systems
MED 161 Medical Terminology
PATH 161 Pathophysiology 1

**Year 1 - Semester 2**

APHY 200 Anatomy and Physiology 2
CLIN 236 Clinical - Coding 2
CLIN 237 Clinical - Coding 3
COMM 262 Workplace Communication
HINF 161 Health Information Analysis 1
PATH 272 Pathophysiology 2
PATH 273 Pathophysiology 3

**Year 1 - Semester 3**

PRAC 165 Health Information Practicum 1

**Year 2 - Semester 4**

COMP 175 Introduction to Microsoft Excel 2
COMP 176 Introduction to Microsoft Access 1
COSC 262 Database Programming
HINF 260 Epidemiology and Population Health
HINF 261 Health Information Analysis 2
HINF 262 Health Care Law and Ethics
HINF 264 Theories and Concepts of Program Management
HINF 265 Health Information Systems
STAT 260 Statistics for Health Sciences

**Year 2 - Semester 5**

CLIN 288 Clinical - Coding 4
HINF 263 Human Resource Management and the Employee
HINF 266 Health Standards and Informatics
PRAC 262 Health Information Practicum 2

Register online at saskpolytech.ca or call 1-866-467-4278
Note: Students must be admitted to the program before taking CLIN 101 or PATH 272.

Medical Laboratory Assistant
Applied Certificate

Location
- Saskatoon

Start date
- November

Duration
- 27 weeks

Admission requirements
- 45 words per minute keyboarding speed with 98% accuracy (5-minute testing report to be submitted with transcripts); (Testing is available through Saskatchewan Polytechnic Testing Services). A completed Keyboarding Test Results Form must be submitted to Registration Services.
- Grade 12 with a minimum grade of 70% in each of English Language Arts A30, English Language Arts B30, Foundations of Math 20 or Foundations of Math 30 or Pre-Calculus 30*, Health Science 20 or Biology 30*, and Physical Science 20 or Chemistry 30*
- English Language Requirement

*Previous Saskatchewan biology, chemistry, and mathematics requirements also accepted:
- Biology 20
- Chemistry 20
- Math 20 or any 30-level math

Note
- Accepted applicants are required to provide evidence of CPR Health Care Provider (HCP), CPR Basic Life Support (BLS), CPR Level ‘C’ AED or equivalent certification upon admission into the program. CPR certification is valid for two (2) years from the date of completion regardless of the length of time indicated by the provider of the card or certificate. Recertification may be required during your studies. The cost of CPR certification is your responsibility.
- Accepted applicants will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search upon admission into the program. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.
- Accepted applicants are required to provide evidence of current immunization records and meet Saskatchewan Polytechnic immunization requirements prior to entry into clinical practicum.
- Accepted applicants are required to provide evidence of current N95 and canister respirator mask testing upon admission into the program. N95 and canister respirator mask testing is valid for two (2) years from the date of completion. Retesting may be required during your studies. The cost of N95 and canister respirator mask testing is your responsibility.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview

Medical laboratory assistants work directly with other health care providers and patients and in the exciting laboratory setting. You collect health information and medical specimens from patients, but you also enter clerical data, process specimens and assist with basic laboratory activities. It’s a job that requires good people and communication skills, a professional yet caring attitude and a commitment to teamwork and excellence, as well as attention to detail.

Medical lab assistants are in demand in many areas. Look for jobs in hospitals, community clinics, medical offices, research and pharmaceutical labs, veterinary clinics, chiropractic and physiotherapy offices and more.

Medical Laboratory Assistant is a nationally accredited 27-week applied certificate program offered at Saskatchewan Polytechnic Saskatoon campus. Some classes are also available through distance education. Labs and clinical experiences are a big part of the program, so expect hands-on training in:
- anatomy and physiology
- basic lab procedures
- histology and cytology
- infection control and safety
- microbiology
- specimen collection and handling

Put Your Learning to Work

You’ll participate in five supervised clinical experiences, for a total of 11 weeks of training. Each will give you practical experience in a specific area: histology and cytology, specimen management, phlebotomy and microbiology. These clinical experiences take place at various sites around the province.

Ladder into a Saskatchewan Polytechnic Diploma
You can transfer several Medical Laboratory Assistant courses into Saskatchewan Polytechnic Health Sciences diploma programs, including Combined Laboratory and X-Ray Technology, Cytotechnology, Medical Laboratory Technology and Medical Radiologic Technology.

Career Opportunities
As a medical laboratory assistant, you could work in a hospital, community clinic, medical office, research lab, pharmaceutical lab, veterinary clinic, chiropractic and physiotherapy offices and more. Look for job opportunities with regional health districts, government health agencies, educational institutions and private labs.

International applicants are not currently considered for admission.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses
APHY 189  Anatomy and Physiology
CLIN 198  Clinical ECG
ECRD 180  Electrocardiography
ETHC 185  Professional Practices 1
HSTC 188  Introduction to Histology & Cytology
INFC 180  Infection Control and Safety
MICR 190  Introduction to Microbiology
MTER 180  Medical Terminology
PRAC 127  Specimen Management Practicum
PRAC 128  Phlebotomy Practicum
PRAC 129  Histology & Cytology Preparation
PRAC 130  Microbiology Preparation
PROC 180  General Laboratory Practice
PROC 181  Specimen Collection and Handling
PROC 183  Introduction to Basic Lab Procedures
SIMU 100  Clinical Orientation

Medical Laboratory Technology Diplomas

Location
• Saskatoon

Start date
• September

Duration
• 91 weeks
  • Year 1 - 35 weeks; Year 2 - 37 weeks; Year 3 - 19 weeks

Admission requirements
• Grade 12 with a minimum grade of 70% in English Language Arts A30, English Language Arts B30, Foundations of Math 30 or Pre-Calculus 30*, Physical Science 20*, Chemistry 30 and Biology 30
• English Language Requirement

*Previous Saskatchewan mathematics and physics requirements also accepted:
• Minimum of 70% in Math B30
• Minimum of 70% in Physics 20

Note
• Physics 30 will not be substituted for Physical Science 20 or Physics 20.

Accepted applicants will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search upon admission into the program. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.

Accepted applicants are required to provide current immunization records and meet Saskatchewan Polytechnic immunization requirements prior to entry into clinical practicum.

Accepted applicants are required to provide evidence of CPR Health Care Provider (HCP), CPR Basic Life Support (BLS), CPR Level ‘C’ AED or equivalent certification upon admission into the program. CPR certification is valid for two (2) years from the date of completion regardless of the length of time indicated by the provider of the card or certificate. Recertification may be required during your studies. The cost of CPR certification is your responsibility.

Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview
Note: This program will be subject to the High-Demand admission process effective for the Fall 2021 intake. A Selection Process Guide and detail concerning all requirements will be forthcoming.

- All applicants will be required to submit an Essay of Traits and Awareness Questionnaire by March 1. Applicants moving to Phase II of the selection process will be required to submit a Situational Assessment. The cost of the Situational Assessment will be the applicant's responsibility.
- In Phase II, the additional selection criteria will be weighted as follows:
  - Relevant post-secondary education = 10%
  - Essay of Traits = 40%
  - Situational Assessment = 50%

If you're interested in the science and technology of health care, consider a career as a medical laboratory technologist. It will immerse you in an exciting diagnostic environment, working both independently and as part of a team to perform complex procedures and tests on all types of human specimens. You need to be meticulous, detail-oriented, committed to high standards and have aptitudes for critical thinking as well as math and science. If this sounds like you, check out Saskatchewan Polytechnic's Medical Laboratory Technology program.

Medical Laboratory Technology is a nationally accredited two-and-a-half-year diploma program offered at Saskatchewan Polytechnic in Saskatoon. Experienced instructors guide you through a well-rounded curriculum that includes classroom theory, lab work and actual clinical experiences. You'll learn about:

- clinical chemistry and microbiology
- hematology and hemopathology
- histotechnology and immunology
- laboratory practice
- specimen collection and handling
- transfusion science

Build Practical Skills

Class time is augmented by hands-on training in labs. You'll also get 42 weeks of clinical practicum experience in hospitals and laboratories around the province, including placements in different settings to gain specific laboratory experiences, organizational skills and technical competence.

Diploma to Degree

Use your Medical Laboratory Technology diploma to ladder into a degree program at the University of Regina or Athabasca University (Alberta). A degree is usually required if you are interested in moving into management or teaching positions.

Serve in the Canadian Forces

Saskatchewan Polytechnic's Medical Laboratory Technology program is recognized by the Canadian Forces, which means you can qualify for CF Paid Education funding. You receive advanced standing as a Medical Laboratory Technologist, which earns you a higher pay rate than graduates of non-CF recognized programs. Visit http://cafcod-rpfcfac.forces.gc.ca for more information.

Career Opportunities

Medical laboratory technologists work for regional health districts, government health agencies, educational institutions and both private and public labs. You could work in a hospital, community clinic, research lab, industrial lab or veterinary clinic.

International applicants are not currently considered for admission.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

**Year 1**

- APHY 191 Anatomy and Physiology 1
- APHY 282 Anatomy and Physiology 2
- CHEM 176 Clinical Chemistry 1
- CHEM 184 Urinalysis
- ETHC 185 Professional Practices 1
- ETHC 280 Professional Practices 2
- HEMA 179 Hematology
- HEMA 188 Hemopathology - Erythrocytes
- HEMA 192 Introductory Hemostasis
- HSTC 184 Microanatomy
- HSTC 185 Histotechnology 1
- HSTC 187 Histotechnology 2
- IMMU 183 Immunology
- INF 180 Infection Control and Safety
- MICR 187 Microbiology 1
- MICR 188 Microbiology 2
- MTER 180 Medical Terminology
- PROC 180 General Laboratory Practice
- PROC 181 Specimen Collection and Handling
- QC 194 Quality Management
- TRFS 180 Transfusion Science 1

**Year 2 - Semester 1**

- BIOL 181 Molecular Biology
- CHEM 279 Clinical Chemistry 2
- CHEM 288 Clinical Chemistry 3
- HEMA 189 Hemopathology - Leukocytes
- HEMA 283 Advanced Hemostasis
- MICR 189 Microbiology 3
- PATH 181 Laboratory Result Correlation
Medical Radiologic Technology
Diploma

Location
- Saskatoon

Start date
September

Duration
- 90 weeks
  - Year 1 - 41 weeks; Year 2 - 49 weeks

Admission requirements
- Grade 12 with a minimum grade of 70% in English Language Arts A30, English Language Arts B30, Foundations of Math 30 or Pre-Calculus 30*, Physical Science 20*, Chemistry 30 and Biology 30
- English Language Requirement

*Previous Saskatchewan mathematics and physics requirements also accepted:
- Minimum of 70% in Math B30
- Minimum of 70% in Physics 20

Note
- Physics 30 will not be substituted for Physical Science 20 or Physics 20.
- Accepted applicants will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search upon admission into the program. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.
- Accepted applicants are required to provide evidence of CPR Health Care Provider (HCP), CPR Basic Life Support (BLS), CPR Level ‘C’ AED or equivalent certification upon admission into the program. CPR certification is valid for two (2) years from the date of completion regardless of the length of time indicated by the provider of the card or certificate. Recertification may be required during your studies. The cost of CPR certification is your responsibility.
- Accepted applicants are required to provide current immunization records and meet Saskatchewan Polytechnic immunization requirements prior to entry into clinical practicum.
- Accepted applicants will be required to provide evidence of Transferring Lifting Repositioning (TLR®) certification upon admission into the program. TLR® certification is valid for three (3) years from the date of completion. Recertification may be required during your studies. The cost of TLR® certification is your responsibility.
- Applicants are also required to submit career investigations and awareness questionnaires by March 1.
- Accepted applicants are required to provide evidence of current N95 respirator mask testing upon admission into the program. N95 respirator mask testing is valid for two (2) years from the date of completion. Retesting may be required during your studies. The cost of N95 respirator mask testing is your responsibility.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview
If you’re considering a career in health - one that lets you work one-on-one with people and use state-of-the-art medical equipment - Saskatchewan Polytechnic’s Medical Radiologic Technology program might be for you.

Radiological technologists produce images of body parts and systems using X-ray, computed tomography (CT) and breast imaging equipment. You need to be diligent, detail-oriented and committed to high work standards. You also need to be comfortable positioning and touching patients, as well as talking with them.

Note
This program is subject to the high-demand admission process. It opens for application on October 1, and closes on February 15, each academic year. On February 15, paper applications are accepted until 4:30 p.m., and online applications are accepted until 11:59 p.m. (Saskatchewan times). All supporting documentation is required by 4:30 p.m. (Saskatchewan time) on March 1.

The following requirements will be effective for the Fall 2021 intake of this program. Detail concerning the new requirements will be forthcoming.

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020 77
Serve in the Canadian Forces in Saskatchewan.

Becoming a member of the Saskatchewan Association of Medical Radiation Technologists (CAMRT) certification exam allows you to work anywhere in Canada and internationally.

After graduation, you'll write the national Canadian Association of Medical Radiation Technologists (CAMRT) certification exam. CAMRT certification allows you to work anywhere in Canada and to become a member of the Saskatchewan Association of Medical Radiation Technologists (SAMRT), which is a requirement to work in Saskatchewan.

Serve in the Canadian Forces

Saskatchewan Polytechnic's Medical Radiologic Technology program is recognized by the Canadian Forces, which means you can qualify for CF Paid Education funding. On graduation, you’ll also receive advanced standing as a Medical Radiation Technologist, which earns you a higher pay rate than graduates of non-CF recognized programs. Visit http://cafcod-rpfcfac.forces.gc.ca/ for more information.

Career Opportunities

There are many career options open to nationally certified medical radiological technologists (MRTs). Choose a career in general radiography or specialize in computerized tomography, mammography or angiography. Hospitals are a major employer, but you also might work in a radiology clinic, cancer clinic, community health centre or private medical clinic. You could also explore careers in veterinary clinics, educational institutes and equipment sales.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

Year 1
APHY 191 Anatomy and Physiology 1
APHY 282 Anatomy and Physiology 2
CLIN 192 Clinical Introduction
ETHC 181 Patient Care in Radiography 1
ETHC 182 Patient Care in Radiography 2
ETHC 185 Professional Practices 1
ETHC 280 Professional Practices 2
IMRC 182 Image Recording Introduction
IMRC 183 Image Acquisition & Processing
INFC 180 Infection Control and Safety
MTER 180 Medical Terminology
PATH 179 Radiographic Pathology 1
PATH 184 Radiographic Pathology 2
PHYS 184 Physics
RDBG 184 Radiobiology and Protection
RDGR 179 Radiographic Technique 1
RDGR 180 Radiographic Technique 2
RDGR 190 Fluoroscopy
RDGR 283 Advanced Radiographic Technique 1
RDGR 284 Advanced Radiographic Technique 2
RDTM 280 Computed Tomography
RDTM 281 Sectional Anatomy
RGAN 180 Radiographic Anatomy
RSAP 180 Radiation Science and Apparatus 1
SIMU 281 Clinical Preparation

Year 2

Sask Polytech Calendar 2019-2020

Register online at saskpolytech.ca or call 1-866-467-4278
CLIN 295  Clinical Radiography 1
CLIN 296  Clinical Radiography 2
CLIN 297  Clinical Radiography 3
RSCH 280  Applied Investigation

Mental Health and Addictions Worker Certificate

Location
- Online
- Prince Albert

Start date
- February
  - For more information, contact Val Strom at strom@saskpolytech.ca or 306-765-1775, or Barb Robinson at robinsonb@saskpolytech.ca or 306-765-1730.

Duration
- 784 hours

Admission requirements
- Grade 12 with English Language Arts A30 and English Language Arts B30, or special admission after successful completion of three courses (CAPL 144, CAPL 145, and HLTH 151)
- Satisfactory assessment for chemical dependency (nicotine is excluded)
- Satisfactory Criminal Record Check
- English Language Requirement

Program overview

Note: This program is suspended effective April 30, 2017

Mental Health and Addictions Worker is a certificate program. It provides the knowledge and skill development required to perform the functions of an entry-level mental health and addictions worker. The skills and knowledge presented in the program have been acquired and sanctioned by the Northern Labour Market, the Northern Inter-Tribal Health Authority (NITHA), Northlands College, and Saskatchewan Polytechnic.

This program was requested by the NITHA with two specific requirements. The first requirement was to integrate mental health and addictions core knowledge and practices. The second requirement was to include First Nations philosophy and cultural perspectives as much as possible.

It is intended to provide training to meet the needs of the Northern Labour Market Health Sector. Training will prepare graduates to respond to clients who have substance use and mental health issues, in an integrated holistic manner.

The program is also designed to provide knowledge related to First Nations culture and its role in client recovery. This certificate is the first step in the development of a new program that can be offered by a variety of delivery methods: face-to-face, by distance and blended distance.

The program is delivered through Saskatchewan Polytechnic Prince Albert campus and Northlands College, in a blended online format, with courses offered by distance, online, and workshops that will be face-to-face.

Note:

If you wish to take this program you must be currently working for NITHA members. Students are selected and funded through NITHA. Contact your employer, Northlands College or Saskatchewan Polytechnic (Val Strom at 306-765-1775 or Barb Robinson at 306-765-1730).

You will learn how to:
- use interpersonal communication skills (including assertiveness and conflict resolution)
- use an integrated case management approach with mental health and addicted clients and their families while following the best practices philosophy
- facilitate brief screenings, comprehensive assessments, treatment plans and referrals
- use basic level one-one counselling skills through an experiential learning lab setting that is monitored and coached by skilled faculty
- manage client resistance and ambivalence using motivational interviewing
- use suicide intervention techniques

You will also learn about specialty areas. These include:
- cross-cultural issues
- suicide intervention
- FASD
- gambling
- concurrent disorders
- pharmacology
- drug abuse history in communities
- adolescents

You will complete a Wellness Resource Project and an Orientation to Mental Health and Addictions Services.

Career Opportunities

Graduates of the program will work primarily within the National Native Alcohol and Drug Abuse Program (NNADAP) within Northern regional health authorities, where their increased skill set will help
them deal with the clients who have substance use issues and mental health problems.

There are 115 job titles for this National Occupational Classification (NOC); however, this certificate program is specific to northern Saskatchewan and only specific titles apply. These include, for example:

- Aboriginal centre coordinator
- Aboriginal outreach worker
- Addictions worker
- Native centre coordinator
- Peer support worker
- Native outreach worker
- Street outreach worker
- Substance abuse worker
- Group homeworker
- Halfway house worker

The program is recognized by the employers within the Northern labour market and the Northern Inter-Tribal Authority.

### Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx)

### Courses

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<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>MHA 143</td>
<td>Concurrent Disorders</td>
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<td>MHA 144</td>
<td>Process Addictions</td>
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<td>Wellness Resource Project</td>
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<td>MHA 146</td>
<td>Orientation to Mental Health and Addiction Services</td>
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<td>MHA140</td>
<td>Mental Health Issues and Mental Health Disorders</td>
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<td>Behaviour and Drug Dynamics</td>
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<td>Human Relations in Mental Health and Addictions</td>
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<td>CDEP 178</td>
<td>Fetal Alcohol Spectrum Disorder</td>
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<td>CLTR 148</td>
<td>Valuing Diversity</td>
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<td>COUN 151</td>
<td>Brief Screenings</td>
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<td>COUN 152</td>
<td>Suicide Interventions</td>
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<td>COUN 157</td>
<td>Motivational Interviewing</td>
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<td>COUN 158</td>
<td>Assessments and Recovery Plans</td>
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### Pharmacy Technician

**Diploma**

#### Location

- Saskatoon

#### Start date

- September

Sue Mack-Klinger, BSP, BSc Pharmacy Technician Program Head / Instructor3 06-659-4091 Sue.Mack-Klinger@saskpolytech.ca

Corri Lewis, BSP Pharmacy Technician Program Instructor 306-659-4132 orri.Lewis@saskpolytech.ca

### Duration

- 73 weeks
  - You have 4 years to complete the program

### Admission requirements

- Grade 12 with a minimum of 70% in each of the following subjects: Foundations of Math 30 or Workplace and Apprenticeship Math 30 or Pre-Calculus 30, Biology 30 and Chemistry 30
- Minimum overall average of 65%
- Minimum keyboarding speed of 35 words per minute with 95% accuracy in a 5-minute test period. (Testing is available through Saskatchewan Polytechnic Testing Services).
- Evidence of English language proficiency will be based on submission of one of the following for evidence:
  - Language proficiency test results determined by the National Association for Pharmacy Regulatory Authority (NAPRA) language proficiency requirements for licensure as a pharmacy technician in Canada
  - Graduation from a high school in Canada or a Collège d’enseignement général et professionnel (CEGEP) in Quebec with three consecutive, first language English or French* courses/credits
  - An undergraduate degree from a university in Canada, where instruction is in English or French**

*Previous Saskatchewan mathematics requirement also accepted: Minimum of 70% in Math A30
School of Health Sciences
SASK POLYTECH Programs

**The Pharmacy Technician program at Saskatchewan Polytechnic conducts classroom, lab and clinical/practicum lectures and experiences in English only**

Note

- Accepted applicants will be required to provide evidence of a Criminal Record Check including a Vulnerable Sector Search prior to entering the practicum component of the program. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check. The cost of the Criminal Record Check is your responsibility.
- Effective July 1, 2019: Accepted applicants will be required to provide, at their own expense:
  - An up to date immunization record prior to participating in hospital practicum courses. Students may be denied access to hospital sites if immunizations are not current.
  - It is strongly recommended that you obtain Standard First Aid and CPR Heartsaver “A” AED or equivalent as health care practitioners.
  - Accepted applicants are required to provide evidence of current N95 respirator mask testing within one year of the hospital practicum. The cost of N95 respirator mask testing is your responsibility.
  - Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview

Demand for pharmacy technicians is growing. You will be part of a pharmacy team, filling prescriptions, assisting patients, maintaining records and more. Your focus will be the accurate preparation and delivery of medications to your patient. It’s a career that demands careful attention to detail, a high degree of integrity and lifelong learning. There is zero tolerance for math errors, so you will need to be good at basic math. You will also need to be comfortable following strict procedures and a good communicator who is comfortable talking with patients and other health professionals. Pharmacy technicians have strong organizational skills, are multi-taskers, and utilize precise written and oral communication within their workplaces.

You will find a lot of career doors open to you. Most Saskatchewan Polytechnic grads work in hospitals, but there are also jobs in community pharmacies, drug manufacturing facilities and other businesses involved in medication distribution and support.

Pharmacy Technician is an intensive two-year diploma program at Saskatchewan Polytechnic, Saskatoon Campus. The program focuses on building your knowledge and skills in:

- dispensing
- quality assurance
- hospital and community pharmacy practice
- pharmaceutical calculations
- pharmacy legislation
- pharmaceutical products
- sterile product preparation

You will have lectures that provide foundational knowledge, and will also apply your learning in Saskatchewan Polytechnic’s well-equipped labs. Experienced instructors provide group and individual instruction, giving you hands-on training and real-world skills.

Work Experience

Two month-long work experiences, one in a hospital and one in a community pharmacy, give you a chance to build your practical skills. It’s also an opportunity to experience, first-hand, the professional expectations placed on pharmacy technicians.

Career Opportunities

Pharmacy technicians work in rural and urban areas, in hospital and community settings. Look for job openings in regional health authorities, hospital pharmacies, community pharmacies and businesses involved in medication distribution or support.

Community pharmacies include pharmacies in grocery stores, department stores and brand name chains. You can also explore job opportunities in veterinary hospitals, home health care, pharmaceutical sales and distribution, quality assurance and companies that administer health plans. The pathway to becoming a licensed pharmacy technician in Saskatchewan is available through the Saskatchewan College of Pharmacy Professionals.

Note

International applicants are not currently considered for admission to this program.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

Courses

**Year 1 - Semester 1**

APHY 160 Essentials of Human Anatomy and Physiology

COMM 291 Interpersonal Communications

MATH 168 Introductory Math for Health Sciences

MTER 100 Medical Terminology

PHAR 179 Pharmacology for the Pharmacy Technician
School of Health Sciences
SASK POLYTECH Programs

PHAR 182  Pharmacy Practice
PHAR 184  Pharmacy Agreements
PHAR 185  Introduction to Pharmaceutical Calculations
PHAR 187  Pharmacy Computer Skills

Year 1 - Semester 2
MICR 110  Microbiology for Pharmacy Practice
PHAR 183  Introduction to Pharmacy Dispensing Lab
PHAR 186  Pharmaceutical Products 1
PHAR 188  Non-Prescription Products
PHAR 192  Pharmacy Management
PHAR 194  Pharmacy Legislation
SFTY 179  Safety in Pharmacy Practice

PHAR 183  Introduction to Pharmacy Dispensing Lab
PHAR 186  Pharmaceutical Products 1
PHAR 188  Non-Prescription Products
PHAR 192  Pharmacy Management
PHAR 194  Pharmacy Legislation

Year 1 - Semester 3
PRAC 118  Community Pharmacy Experience

Year 2 - Semester 4
PHAR 204  Advanced Pharmacy Dispensing Pre-lab
PHAR 205  Advanced Pharmacy Dispensing Lab
PHAR 206  Hospital Pharmacy
PHAR 207  Institutional Pharmacy Lab
PHAR 208  Pharmaceutical Products 2
PHAR 216  Parenteral Product Calculations
PHAR 217  Scope of Practice for Pharmacy Technicians
SOCI 171  Culture and Diversity in Canadian Society

Year 2 - Semester 5
COM 104  Teamwork and Collaboration
PHAR 209  Non-Sterile Compounding Pre-Lab
PHAR 210  Non-Sterile Compounding Lab
PHAR 211  Sterile Compounding Lecture
PHAR 212  Sterile Compounding Lab
PHAR 213  Advanced Pharmacy Calculations
PHAR 214  Pharmacy Practicum and Career Preparation

Year 2 - Semester 6
PRAC 484  Community Practicum
PRAC 485  Hospital Practicum

Phlebotomy
Applied Certificate

Location
- Online
- Saskatoon

Start date
- September, November, and April

Duration
- 28 weeks

Admission requirements
- Grade 12 with an overall average of 60% with English Language Arts A30, English Language Arts B30, Foundations of Math 20 or Foundations of Math 30 or Pre-Calculus 30*, Health Science 20 or Biology 30*, and Physical Science 20 or Chemistry 30*
- 45 words per minute keyboarding speed with 98% accuracy (5-minute testing report to be submitted with transcripts)
- Testing is available through Saskatchewan Polytechnic Test Centres. A completed Keyboarding Test Results form must be submitted to Registration Services.

- English Language Requirement

*Previous Saskatchewan biology, chemistry, and mathematics requirements also accepted:
- Biology 20
- Chemistry 20
- Math 20 or any 30-level math

Note:
- Accepted applicants are required to provide evidence of CPR Health Care Provider (HCP), CPR Basic Life Support (BLS), CPR Level 'C' AED or equivalent certification upon admission into the program. CPR certification is valid for two (2) years from the date of completion regardless of the length of time indicated by the provider of the card or certificate. Recertification may be required during your studies. The cost of CPR certification is your responsibility.
- Accepted applicants will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search upon admission to the program. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.
- Accepted applicants are required to provide current immunization records and meet Saskatchewan Polytechnic immunization requirements prior to entry into clinical practicum.
- Accepted applicants are required to provide evidence of current N95 respirator mask testing upon admission into the program. N95 respirator mask testing is valid for two (2) years from the date of completion. Retesting may be required during your studies. The cost of N95 respirator mask testing is your responsibility.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview
Phlebotomists work directly with other health-care providers and patients, and in laboratory settings. You will collect blood from
patients, manage and handle specimens, and perform its associated data entry. It's a job that requires good people and communication skills, attention to detail, a professional yet caring attitude, and a commitment to teamwork and excellence.

Phlebotomists are becoming more and more in demand in many areas. Jobs are available in hospitals, community clinics and medical offices.

Phlebotomy is a 28-week applied certificate program offered by distance education through Saskatchewan Polytechnic, Saskatoon Campus. Labs and clinical experiences are a large part of the program, so expect hands-on training in:

- professional practices;
- infection control and safety;
- specimen collection and handling; and
- basic specimen processing

Specimen collection and handling includes two days of supervised clinical experience at various sites throughout Saskatchewan.

Learning Environment

Students will experience a mix of web-assisted learning, home study, and practical and clinical labs. The theory components of your program are delivered by online distance learning which enables you to learn and study from home. You will be required to attend on-campus laboratories in Saskatoon on designated weekends (students will be notified of dates in advance). The clinical experience can be offered at various designated sites around the province. For this program, there is a heavy workload with 15-20 hours per week of homework. Clinical experience hours coincide with health-care hours, and start as early as 7 a.m. Theory courses: online distance learning which enables you to learn and study from home Practical labs: Saskatoon (designated weekend dates)Clinical Practicum Experiences Clinical practicum placements (Monday to Friday) may occur at any approved site in Saskatchewan.

- Clinical 1 (PROC 181): Two days of practicum (2 consecutive days) at various sites around Saskatchewan
- Clinical 2 (PRAC 110): Eight days of practicum (2 consecutive weeks) at various sites around Saskatchewan

Put Your Learning to Work

You'll participate in a two-week clinical experience, scheduled consecutively and occurring within eight weeks of your last theory course. Your clinical experience may take place at various sites around the province.

Ladder into a Saskatchewan Polytechnic Diploma or Applied Certificate

You can transfer several Phlebotomy courses into Saskatchewan Polytechnic School of Health Sciences diploma programs, including:

- Combined Laboratory and X-Ray Technology
- Cytotechnology
- Medical Lab Assistant
- Medical Laboratory Technology
- Medical Radiologic Technology

Career Opportunities

As a phlebotomist you will be employed by medical laboratories to perform blood collection and specimen management and handling, which includes the associated data entry. The provincial health regions have identified an ongoing need for workplace-ready phlebotomists. Look for job opportunities with regional health districts, government health agencies and private labs.

Transfer credit

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Courses

- ETHC 185 Professional Practices 1
- INFC 180 Infection Control and Safety
- MTER 180 Medical Terminology
- PRAC 110 Venipuncture Practicum
- PROC 181 Specimen Collection and Handling
- PROC 184 Basic Specimen Processing

Primary Care Paramedic Certificate

Location

- Regina
- Saskatoon

Start date

- Intake 1 - Spring Semester; Intake 2 - Fall Semester

Duration

- 48 weeks

Admission requirements

- Grade 12 with a minimum overall average of 60% in the following four courses: English Language Arts A30, English Language Arts B30, one of Biology 30 or Chemistry 30, and one of Workplace and Apprenticeship Math 30 or Foundations.
As a primary care paramedic, you’ll find your skills in demand by ambulance, air ambulance and fire protection services around the

Program overview

Being a paramedic is all about teamwork. There’s a sense of camaraderie you won’t find in many other jobs. But it takes a special kind of person. You have to want to help people, because you’ll be dealing with all ages in all kinds of crises. You have to work well under pressure, because you’ll be delivering pre-hospital emergency care in people’s homes, in the middle of busy streets, and/or at industrial sites.

It’s a rewarding career with an expanding range of job opportunities—and Saskatchewan Polytechnic’s Primary Care Paramedic (PCP) program will get you started.

Primary Care Paramedic is a one-year certificate program offered through Saskatchewan Polytechnic Saskatoon campus and Saskatchewan Polytechnic Regina campus, and in partnership with regional colleges. Our program emphasizes authentic hands-on training in prehospital emergency care, with both hospital and ambulance practicums. You’ll focus on:

- medical and trauma injuries
- mental health issues
- obstetrical emergencies
- pharmacology
- physical assessments of various body systems
- cardiac and respiratory emergencies
- certifications in:
  - International Trauma Life Support (ITLS)
  - Pediatric Education for Prehospital Professionals (PEPP)

Hands-on Learning

- Lab and Simulation Training - The PCP program emphasizes hands-on learning. You’ll spend about one-third of your time in the classroom, one-third in practical labs and one-third in high-fidelity simulation. State-of-the-art simulation facilities use a wide range of scenarios to help you develop your critical thinking and decision-making skills.
- Field Practicums - You’ll take the knowledge that you’ve learned in the classroom and put it to work with an emergency medical services (EMS) organization (usually ambulance service) to learn about policies, procedures and documentation; conduct independent patient assessments; and provide treatment using ambulance equipment.
- Clinical Practicums - During your hospital-based practicum, you’ll conduct independent patient assessments and use hospital equipment to provide treatment. You’ll also learn about hospital policies, procedures and documentation.

Career Opportunities

As a primary care paramedic, you’ll find your skills in demand by

Note

Accepting applicants will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search upon admission to the program. At the discretion of the practicum/clinical agency, you may be declined access to a clinical/practicum based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your

You must exhibit physical strength and fitness consistent with the requirements of professional practice. This will be evaluated within the program.

Accepted applicants are required to provide evidence of Transferring Lifting Repositioning (TLR©) certification upon admission into the program. The cost of TLR© certification is your responsibility.

Accepted applicants are required to provide current immunization records and meet Saskatchewan Polytechnic immunization requirements prior to entry into the clinical/practicum.

Accepted applicants are required to provide evidence of current N95 respirator mask testing prior to entry into the clinical practicum. The cost of N95 respirator mask testing is your responsibility.

Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Effective January 2020: Refer directly to the English Language Proficiency Requirements chart (Section 3, Primary Care Paramedic) for required evidence for this program. The language of instruction and assessment for this program is English. In addition to the general admission requirements, if your first or primary language is not English and/or your country is not exempt (Section 1), you must demonstrate an appropriate level of proficiency in English.

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Career Opportunities

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Sask Polytech Calendar 2019-2020
province. You’ll also find job opportunities in the military, at mine sites, and at industrial manufacturing, milling and processing sites.

For more information about career opportunities, contact Student Employment Services at the Saskatchewan Polytechnic campus nearest you or check out the Saskatchewan College of Paramedics job postings.

**Transfer credit**

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**Courses**

**Semester 1**
- APHY 164 Anatomy and Physiology 1
- APHY 165 Anatomy and Physiology 2
- EMER 107 Professionalism, Leadership, and Communications
- EMER 108 Health and Safety
- EMER 109 Patient Assessment, Transport, and Diverse Populations
- PHAR 100 Pharmacology and Fluid Therapy

**Semester 2**
- EMER 110 Cardiac and Respiratory Theory
- EMER 111 Cardiac Care
- EMER 112 Respiratory Care
- EMER 113 Trauma Management 1
- EMER 114 Trauma Management 2
- EMER 115 Medical Care 1
- EMER 198 Medical Care 2
- EMER 199 Medical Care 3

**Semester 3**
- EMER 116 Foundations of Community Paramedicine
- EMER 155 Patient Management and Integration
- PRAC 116 Practicum 1

**Semester 4**
- PRAC 117 Practicum 2

**Therapeutic Recreation Diploma**

**Location**
- Online
- Saskatoon

**Start date**
- September:

There is an intake to this program every second year (odd numbered years only).

**Duration**

- 70 weeks:
  - Year 1 - 35 weeks; Year 2 - 35 weeks

**Admission requirements**

- Grade 12
- English Language Requirement

**Note:**

- Accepted applicants will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search prior to entering practicum. At the discretion of a practicum agency, you may be declined access to a practicum placement based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and the Vulnerable Sector Search is your responsibility.
- Accepted applicants are required to provide current immunization records and to meet Saskatchewan Polytechnic immunization requirements prior to entry into practicum.
- Current certification in one of the following must be provided prior to entry into practicum:
  - Professional Assault Response Training (PART)
  - Wellness, Alcohol and Violence Education Program (WAVE)
  - Gentle Persuasive Approaches (GPA)
  - Nonviolent Crisis Intervention (NVCI)
  - Transferring Lifting Repositioning (TLR®) certification must be current to enter into practicum.
  - Accepted applicants are required to provide evidence of current N95 respirator mask testing prior to entry into the clinical practicum. The cost of N95 respirator mask testing is your responsibility.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

**Program overview**

Therapeutic recreation is a career that attracts organized, outgoing, active individuals who like working with people of all abilities. You need to be good at encouraging people to set goals, develop skills and try new things.

Career opportunities are diverse—be a recreation therapist, a recreation coordinator, an activity director or programmer. Work as part of a multidisciplinary health care team in clinical or community-based settings, from hospitals to rehabilitation centres.
Therapeutic Recreation is a two-year diploma program offered at Saskatchewan Polytechnic Saskatoon campus; it is also offered through distance education. You’ll learn from knowledgeable instructors how to use recreation as a means of improving health, functional ability and quality of life. The program provides a broad knowledge base, from human growth and development to sociology. Your studies will focus on:

- assessment of individual needs, functional abilities and leisure behaviours
- development of individualized treatment plans
- documenting progress
- using facilitation techniques to meet individual goals
- practicing therapeutic recreation based on professional standards
- modifying activities to meet individual abilities
- participating as a member of a health care team

Learn through Practical Experience - Apply what you’ve learned in class in real-world settings. The program includes three practicums. Each one will provide opportunities to apply assessment techniques, conduct activity analysis and selection, develop and evaluate treatment plans, get involved in individual and group program planning and more. You’ll also build important interpersonal and leadership abilities.

Pursue Professional Certification - If you’re interested in pursuing professional certification, the Canadian Therapeutic Recreation Association endorses the National Council for Therapeutic Recreation Certification’s Certified Therapeutic Recreation Specialist (CTRS) as the certification for Canada.

Career Opportunities

When you graduate, you’ll be able to work in both clinical and community-based settings. You could work in a hospital as part of a multidisciplinary health care team, in a long-term care facility, adult day program, rehabilitation centre, addiction program or mental health program. Explore career opportunities with health regions, provincial or federal health agencies,

For more information, contact the Student Employment Services at a campus nearest you.

Transfer credit

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Courses

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<td>THRC 292</td>
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<td>PRAC 177</td>
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<td>THRC 189</td>
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<td>THRC 281</td>
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<td>THRC 283</td>
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<td>SOCI 185</td>
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<td>THRC 286</td>
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<td>THRC 290</td>
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<tbody>
<tr>
<td>PRAC 281</td>
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</table>

Note: Students must be admitted to the program before taking the practicums.

Veterinary Technology

Diploma

Location

- Saskatoon

Start date

- September

Register online at saskpolytech.ca or call 1-866-467-4278
School of Health Sciences
SASK POLYTECH Programs

Duration
- 80 weeks
  - Year 1 - 41 weeks; Year 2 - 39 weeks

Admission requirements
- Grade 12 with a minimum of 70% in each of the following subjects: Biology 30, Chemistry 30, and Foundations of Math 30 or Pre-Calculus 30*
- A combined average of 70% in English Language Arts A30 and English Language Arts B30
- 60 hours documented veterinarian-supervised volunteer or work experience
- Completion of mandatory orientation
- English Language Requirement

Note
- For important information, review our Application Process Guide and Frequently Asked Questions.
- To comply with safety regulations, students who wear contact lenses must have a pair of prescription glasses to wear in the labs.
- Students must be registered, as a student member, with the Saskatchewan Veterinary Medical Association prior to practicum placement (VETR 183).
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

*Previous Saskatchewan mathematics requirement also accepted:
- Minimum of 70% in a 30 level math

Program overview
It’s more than a love of animals that inspires people to become veterinary technologists – it’s also a keen interest in science and medicine. If you’re self-motivated and want to be part of a team working to make animals’ lives better, veterinary technology could be a great career fit. Veterinary technologists support veterinarians in vet clinics; work in livestock operations, animal shelters, zoos, diagnostic labs, the government in regulatory roles, such as food inspection and in the veterinary sales industry.

Sask Polytech’s two-year Veterinary Technology diploma program is offered at the Saskatoon campus. Get hands-on training in animal nursing, animal care and management, as well as clinical laboratory procedures. You’ll build the knowledge and skills you need to:

- provide assistance to veterinarians during surgery and anesthesia;
- perform diagnostic procedures including lab tests and imaging;
- perform animal care and husbandry in clinic, livestock and research settings; and
- assist in client education.

Application Process Guide
For required information on preparing your application, refer to the Application Process Guide.

5th & 6th Semester at Vet College
Your final two semesters take place at the Western College of Veterinary Medicine (WCVM) at the University of Saskatchewan campus. It’s a chance to learn from leading vet techs and veterinarians; and start working as part of a veterinary team.

Diploma to Degree
Use your Veterinary Technology diploma as a stepping stone to a degree in Animal Bioscience at the U of S College of Agriculture and Bioresources, or Athabasca University in Alberta. Starting June 2019, graduates with a 2.50 GPA will also have the opportunity to directly enter into the 3rd year of a post-diploma B.Sc. (Agricultural Studies) or post-diploma BA (Agricultural Studies) at the University of Lethbridge.

For more information about this program refer to Frequently Asked Questions.

Career Opportunities
As a veterinary technologist, your skills are in demand at veterinary clinics and hospitals, livestock operations, animal shelters, diagnostic labs, research facilities, zoos and game farms. There are also job opportunities with government agencies and in sales. You might also use your skills as the owner/operator of your own kennel or training facility.

Note
International applicants are not currently considered for admission to this program.

Transfer credit
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Courses
Year 1 - Semester 1
### Programs

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Sask Polytech Calendar 2019-2020

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<td>APHY 102</td>
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<td>CHEM 101</td>
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<td>MATH 280</td>
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<td>VETR 182</td>
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<td>VETR 186</td>
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<tr>
<td>PHAR 203</td>
<td>Veterinary Pharmacology</td>
</tr>
<tr>
<td>PRST 280</td>
<td>Veterinary Parasitology</td>
</tr>
<tr>
<td>VETR 200</td>
<td>Animal Diseases 2</td>
</tr>
<tr>
<td>VETR 292</td>
<td>Surgical Nursing Skills</td>
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<tr>
<td>VETR 293</td>
<td>Veterinary Nursing Skills 3</td>
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**Year 2 - Semester 5**

<table>
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<tr>
<td>ANES 281</td>
<td>Veterinary Anesthesia 2</td>
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<tr>
<td>PHAR 281</td>
<td>Veterinary Pharmacy Skills</td>
</tr>
<tr>
<td>PRAC 284</td>
<td>Veterinary Technology Senior Practicum</td>
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<tr>
<td>RDGR 282</td>
<td>Diagnostic Imaging 2</td>
</tr>
<tr>
<td>VETR 282</td>
<td>Large Animal Medicine 2</td>
</tr>
<tr>
<td>VETR 294</td>
<td>Veterinary Nursing Skills 4</td>
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<tr>
<td>VETR 295</td>
<td>Small Animal Medicine</td>
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**Year 2 - Semester 6**

<table>
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<tr>
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<tr>
<td>ANES 282</td>
<td>Veterinary Anesthesia 3</td>
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<tr>
<td>CLIN 238</td>
<td>Large Animal Clinical</td>
</tr>
<tr>
<td>CLIN 239</td>
<td>Small Animal Clinical</td>
</tr>
<tr>
<td>VETR 289</td>
<td>Clinical Surgical Nursing</td>
</tr>
</tbody>
</table>

Year 2; Semesters 5 and 6 - Most of these courses will be taken at the University of Saskatchewan’s Western College of Veterinary Medicine. You must successfully complete all courses in Semesters.
School of Hospitality and Tourism

Culinary Arts Diploma

Location
- Saskatoon

Start date
- September

Duration
- Year 1 - 38 weeks; Year 2 - 32 weeks

Admission requirements
- Grade 10
- You must be 18 years old as of the program start date in the year of admission
- English Language Requirement

Program overview

Turn your passion for food into a career. Saskatchewan Polytechnic’s Culinary Arts diploma program is hands on, fast paced and cutting edge—and the only two-year advanced culinary training program in Saskatchewan.

Get the professional training you need to launch a career in cooking, whether you’re interested in a career in restaurants, hotels, resorts, private clubs, catering, institutional settings or running your own restaurant. We train the next generation of culinary leaders.

Culinary Arts is a two-year diploma program offered at Saskatchewan Polytechnic, Saskatoon Campus, Idylwyld Dr. Your instructors are all experienced Red Seal chefs. They will introduce you to cooking principles and practices, everything from baking to breakfasts, garde manger to a la carte, and meats, seafood and poultry to vegetables, starches and pasta. Here are some of the exciting culinary subjects you will be exposed to:

- baking and pastry
- catering and special event cooking
- Contemporary cuisine and modern food trends
- field to fork experience
- fine dining
- meat cutting and cooking
- regional foods and Indigenous foods
- sauces and soups
- short order food production

- vegetable cooking
- wines and beverages
- world cuisines

Intensive, Hands-On Education

From food prep to short order cooking to fine dining, you will learn what it is like to work in a commercial kitchen—you’ll spend 75% of your time practicing new skills and applying new knowledge in Saskatchewan Polytechnic’s large commercial kitchen. You will also participate in restaurant service, catering events and special diets cooking.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

On graduation, you will be qualified to work as a first cook, sous chef, pastry chef, chef de partie, banquet chef, garde manager, junior chef or kitchen supervisor in many different settings. Build your career resume as you work your way up in restaurants, hotels, resorts, catering and private clubs. Look for career opportunities in institutional and corporate settings or use what you’ve learned to start your own business. Our graduates have over a 90% success rate in finding work within six months of graduation.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

**Year 1**
- CKNG 180 Basic Cooking Principles
- CKNG 181 Bakery 1
- CKNG 182 Bakery 2
- CKNG 183 Food Presentation and Garnish
- CKNG 184 Garde Manger
- CKNG 185 Vegetables, Starches and Pasta
- CKNG 186 Stocks, Soups, and Sauces 1
- CKNG 187 Breakfast and Dairy
- CKNG 188 A la Carte Cooking
- CKNG 189 Quantity Food Production
- CKNG 191 Meat Seafood and Poultry Processing
- CKNG 192 Meat, Seafood and Poultry Cooking
- CKNG 193 Kitchen Operations
- COMM 127 Fundamental Communication Skills
- EQPT 108 Tools and Equipment

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School of Hospitality and Tourism
SASK POLYTECH Programs

MATH 281  Applied Mathematics
SANT 181  FOODSAFE Level 1
SFTY 192  Kitchen Safety
WORK 197  Work Experience

Year 2
CKNG 190  Short Order Food Production
CKNG 280  Garde Manger 2
CKNG 281  Soups and Sauces 2
CKNG 282  Meat, Poultry and Seafood 2
CKNG 283  Vegetables, Fruits and Starches 2
CKNG 284  Baking and Pastry Arts
CKNG 285  World Cuisines
CKNG 286  Field to Fork Experience
CKNG 287  Indigenous Cuisines
CKNG 288  Nutrition and Special Diet Cooking
CKNG 289  Contemporary Cuisine
CKNG 290  Catering and Special Event Planning
CKNG 291  Wines and Beverages
CKNG 292  Food Services Management

Food and Beverage Service
Applied Certificate

Location
- Prince Albert

Start date
October 1 - December 21, 2018
April 1, 2019 - June 21, 2019

Duration
- 12 weeks

Admission requirements
- Grade 10
- English Language Requirement
- You must be 19 years old as of the program start date in the year of admission

Program overview
Well-trained, knowledgeable food and beverage professionals are always in demand. Popular local restaurants, hotels and convention centres compete with five-star resorts and international chains for the best talent.

If you see food and beverage service as a career with great flexibility, amazing mobility and excellent earning potential, Saskatchewan Polytechnic’s Food and Beverage Service program is step one on the road to a successful career as a server, bartender or host/hostess.

Food and Beverage Service is a 12-week applied certificate offered full-time on campus in Prince Albert. The program’s five courses cover fundamental knowledge and skills. You’ll get hands-on practical skills in:

- bar management and mixology
- customer service skills
- food and beverage service
- food safety and WHMIS

Interested in a Management Career?
Use your Saskatchewan Polytechnic Food and Beverage Service applied certificate as a stepping stone into the Hotel and Restaurant Management diploma. It’s a great way to expand career options and earning power.

Apprenticeship Credit
With this Saskatchewan Polytechnic credential, you may be eligible for credit towards journeyperson status. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) or the Saskatchewan Tourism Education Council (STEC).

Career Opportunities
As a Food and Beverage Service graduate, you’ll have the entry level skills you need to work as a server, bartender or host/hostess in restaurants, hotels, convention centres, resorts and more.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses
BAR 280  Bar Management and Mixology
CUST 100  Customer Service Skills
FOOD 190  Fundamentals of Restaurant Service
FOOD 192  Applied Restaurant Service
FOOD 193  Applied Restaurant Service 2 and WHMIS
HADM 187  Hospitality Career Development
SANT 181  FOODSAFE Level 1

Food and Nutrition Management
Diploma

Location
- Saskatoon

Register online at saskpolytech.ca or call 1-866-467-4278  Sask Polytech Calendar 2019-2020  90
Start date
- September

Duration
- 70 weeks:
  - Year 1 - 35 weeks; Year 2 - 35 weeks

Admission requirements
- Grade 12
- English Language Requirement

Note
- Employers and/or supervisors of practicums may require a Criminal Record Check and/or security clearance before you can complete the program requirements. The cost of the Criminal Record Check and/or security clearance are the responsibility of the student.
- Students will need to have experience with Microsoft Word and PowerPoint prior to entering the program.
- Practicum experiences are assigned by the Food and Nutrition Management program in partnership with industry partners. There are limited placements at each location. Enrolment in the program will require acceptance of the practicum as assigned and this placement may be outside of Saskatoon.

Program overview

Food and nutrition is a rapidly growing global industry. If you want to be a part of it, Saskatchewan Polytechnic’s Food and Nutrition Management program will fit you to a tee.

The program develops skills in all three areas—food, nutrition and management. This opens doors to careers in food and nutrition in hotels, restaurants, hospitals, post-secondary institutions, remote mine sites and more.

Food and Nutrition Management is a nationally accredited two-year diploma program offered at Saskatchewan Polytechnic Saskatoon Campus. Build practical, hands-on knowledge and skills in food, nutrition and management, including:

- basic cooking and food preparation
- food service and customer relations skills
- coordination of catering and cafeteria promotions
- management and marketing skills
- menu planning
- nutrition and special diets
- participating on health care teams

Our Kitchen is Your Classroom

Hands-on training in food preparation and cooking is an important part of the program. As a supervisor or manager, you need to know food service from both sides of the “house.”

Put Nutrition on the Menu

Your practical training in nutrition includes nutritional assessment, menu planning and writing specialized diets as part of overall health treatment plans.

Get Real-World Experience

A practical experience in your second year provides on-the-job training in food and nutrition management in acute care, long term care and/or commercial settings. You’ll also polish your management skills during a one-month project at Le Bistro, the popular coffee shop on Saskatoon Campus.

2 More Years = Degree

Use your Saskatchewan Polytechnic diploma as a ladder into the third year of degree programs at Athabasca University in Alberta and Husson University/University of Fredericton in New Brunswick. You can also use your diploma as credit toward becoming a journeyman cook.

Career Opportunities

When you graduate, you’ll be able to work as a food service supervisor, catering manager, nutrition manager, diet technician, quality control manager or marketing/sales consultant for a food manufacturer. Look for jobs in the food service departments of hospitals and long-term care homes, private care homes, in hotels, restaurants and catering companies, in primary and secondary schools, colleges, correctional facilities and retirement communities.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

Year 1

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<thead>
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<tr>
<td>ASRT 180</td>
<td>Assertiveness Training</td>
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<td>CAPL 151</td>
<td>Career Development</td>
</tr>
<tr>
<td>CLTR 100</td>
<td>Diversity</td>
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<td>COM 101</td>
<td>Written and Oral Communications</td>
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<td>COMM 291</td>
<td>Interpersonal Communications</td>
</tr>
<tr>
<td>COMP 174</td>
<td>Introduction to Microsoft Excel 1</td>
</tr>
<tr>
<td>COOK 197</td>
<td>Short Order Cooking</td>
</tr>
<tr>
<td>FIN 281</td>
<td>Financial Management</td>
</tr>
</tbody>
</table>
School of Hospitality and Tourism
SASK POLYTECH Programs

Register online at saskpolytech.ca or call 1-866-467-4278

Food Service Cook
Applied Certificate

Location
- Moose Jaw
- Prince Albert

Start date
- October 1, 2018 - December 21, 2018
- April 1, 2019 - June 21, 2019

In Prince Albert, contact Kevin Mardell at mardell@saskpolytech.ca or 306-765-1577.

In Moose Jaw, contact Wayne Patterson at wayne.patterson@saskpolytech.ca or 306-691-8243.

Duration
- 12 weeks

Admission requirements
- Open Access
- English Language Requirement

Program overview
If you want to get into the workforce quickly and you like working in fast-paced environments, Saskatchewan Polytechnic's Food Service Cook program is a great choice. Food service cooks prepare meals and snacks for large numbers of people—and they are in demand in restaurants, hotels, health and educational institutes, remote mining camps and more.

The program is designed with industry input, so you'll get practical skills. In fact, most of your “classroom” learning is done in a commercial kitchen.

Food Service Cook (formerly Short Order Cooking) is an intensive 12-week applied certificate program offered through Saskatchewan Polytechnic Moose Jaw campus and Saskatchewan Polytechnic Prince Albert campus. You'll get the kind of entry level cooking skills and hands-on experience employers want, while learning how to prepare a large number of orders. Get practical experience in:

- basic cooking principles
- soups, pastas and cold foods
- breakfast and dairy
- meat and poultry basics
- kitchen tools and equipment
- professionalism
- safety, sanitation and WHMIS

This program is delivered when a minimum number of students has been reached. To place your name on the interest list:

- In Prince Albert, contact Kevin Mardell at mardell@saskpolytech.ca or 306-765-1577.
- In Moose Jaw, contact Wayne Patterson at wayne.patterson@saskpolytech.ca or 306-691-8243.

Apprenticeship Credit
With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities
When you graduate from the Food Service Cook program, you'll have the knowledge and skills for a wide variety of jobs. Work full or part time in coffee shops, restaurants and hotels. Look for positions in health care and educational institutes, fly-in fishing resorts, mining and construction camps, and more.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-saskpolytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

Courses

- CKNG 103 Garde Manger (Practical)
- CKNG 110 Basic Cooking Principles
- CKNG 119 Breakfast Cooking Fundamentals
- EQPT 108 Tools and Equipment
- FOOD 103 Quantity Food Production
- FOOD 104 Quantity Meat Preparation
- FOOD 105 Quantity Preparation of Vegetables and Starches
- FOOD 106 Quantity Preparation of Soups and Sauces
- SFTY 111 Safety, Sanitation and WHMIS

Hotel and Restaurant Management Diploma

Location
- Saskatoon

Start date
- September

Duration
- 70 weeks:
  - Year 1 - 35 weeks; Year 2 - 35 weeks

Admission requirements

- Grade 12
- English Language Requirement
- You must be 18 years old as of August 15 in the year of admission

Note

Students will need to have experience with Microsoft Word and PowerPoint prior to entering the program.

Program overview

If you’re looking for a career in management, look to the booming hospitality industry. There are opportunities in hotels, restaurants, convention centres, resorts, casinos, private clubs, golf courses and retirement communities.

You’ll need energy, enthusiasm and good people skills—Saskatchewan Polytechnic’s Hotel and Restaurant Management program will give you the industry knowledge and management skills. Join the growing network of Saskatchewan Polytechnic alumni making their mark in leadership positions.

Hotel and Restaurant Management is a two-year diploma program offered at Saskatchewan Polytechnic Saskatoon Campus, Idylwyld Dr. You’ll build core management skills that you can use in any industry, but you’ll focus on hotel and restaurant operation from the ground up. Your training will include:

- accounting, human resources, sales & marketing
- catering and convention management
- cooking and food preparation
- food and beverage service
- hotel front office and housekeeping
- restaurant planning and management

Get Cooking

As a supervisor or manager, it’s important for you to know food service from both sides of the “house,” which is why Saskatchewan Polytechnic gives you hands-on training in basic food preparation and short order cooking.

The Industry Supports You

Saskatchewan’s hospitality industry supports Saskatchewan Polytechnic students by providing scholarships, guest lecturers and work experiences. Industry input ensures your education is relevant, such as training on up-to-date POS systems and leading front office software (Opera).

Employers Love Work Experience

When you graduate, you’ll already have six weeks of practical work experience in various areas of the hospitality industry including front office, housekeeping and other areas chosen specifically by the student as their after graduation focus.

Use Your Diploma to Earn a Degree

Use your diploma to enter the third year of four year degree programs at Husson University/University of Fredericton in New Brunswick (Business Administration) and Royal Roads University in Victoria, B.C. (International Hotel Management).

Career Opportunities

It’s a big, wide world for Hotel and Restaurant Management grads. The potential job market is much more than hotels and restaurants—it’s casinos, resorts, cruise ship lines, convention centres, private clubs, golf courses and seniors’ communities.

Look for supervisory and management jobs in hotel administration, front office and housekeeping, in banquet and catering, food and
beverage service, sales and marketing. You can also put your diploma to work in your own business.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

Courses

**Year 1**
- ACCT 191 Accounting
- ASRT 180 Assertiveness Training
- CAPL 150 Hospitality Career Development
- CLTR 100 Diversity
- COM 101 Written and Oral Communications
- COMM 291 Interpersonal Communications
- COMP 174 Introduction to Microsoft Excel 1
- COMP 175 Introduction to Microsoft Excel 2
- COOK 197 Short Order Cooking
- ECON 280 Economics
- FIN 281 Financial Management
- FOOD 170 Basic Food Preparation
- FOOD 171 Catering
- FOOD 172 Customer and Restaurant Service Techniques
- FOOD 192 Applied Restaurant Service
- FOOD 194 Purchasing
- HADM 188 Rooms Division Management
- MATH 281 Applied Mathematics
- MGMT 184 Introduction to Management
- SANT 181 FOODSAFE Level 1
- SANT 185 FOODSAFE Level 2
- SPSY 280 Introductory Psychology

**Year 2**
- BAR 200 Bar, Wine and Spirits
- BLAW 283 Law in the Hospitality Sector
- FOOD 200 Restaurant Cost Controls & Menu Planning
- HADM 184 Revenue and Operations Management
- HR 280 Human Resource Management
- MGMT 286 Organizational Behaviour for the Hospitality Industry
- MKTG 270 Sales and Event Management
- MKTG 284 Hospitality Marketing
- PLAN 282 Planning and Layout
- PLAN 286 Wine and Dine Planning
- PRAC 276 Specialization Field Placement
- PROJ 208 Business Plan Development
- PROJ 209 Wine and Dine Service
- PROJ 210 Wine and Dine Production

Note: Some courses will be delivered in the evening. Dates and times will be communicated once the program begins.

Institutional Cooking

Applied Certificate

**Location**
- Prince Albert

**Start date**
- Varies
  - For more information, contact Kevin Mardell at mardell@saskpolytech.ca or 306-765-1577.

**Duration**
- 20 weeks

**Admission requirements**
- Grade 8
- English Language Requirement

**Program overview**

Saskatchewan Polytechnic’s Institutional Cooking program is unique. It is designed to prepare you to work in large-scale food preparation. From soups to sauces (and everything in between), you’ll learn how to produce nutritious, delicious foods in quantity.

It’s a high demand career. Saskatchewan Polytechnic grads are working in restaurants, hotels, catering facilities, remote mining camps, hospitals, schools and more.

Institutional Cooking is a 20-week applied certificate program offered through Saskatchewan Polytechnic Prince Albert campus. Approximately 70% of your learning is hands-on training in a commercial kitchen. Our highly trained instructors will introduce you to:

- basic cooking principles
- baking, breakfast and dairy
- kitchen tools and equipment
- meat, seafood and poultry
- stocks, soups and sauces
- vegetables, pastas, cold foods
- safety, sanitation and WHMIS

**Earn Apprenticeship Credit**

- Use your applied certificate to earn credit towards becoming a Red Seal Cook. Becoming a Red Seal Cook opens the door to higher wages and more job opportunities.

**Career Opportunities**
School of Hospitality and Tourism
SASK POLYTECH Programs

Saskatchewan Polytechnic's Institutional Cooking graduates are in high demand. There are jobs in many different sectors. You could work in industry, cooking at a remote mine site or construction camp. Look for jobs in hospitals and long-term care facilities, in restaurants, hotels and vacation resorts, in schools, retirement communities and government.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

Courses

- BAKE 112 Bakery (Theory)
- BAKE 113 Bakery Production (Practical)
- CKNG 102 Garde Manger (Theory)
- CKNG 103 Garde Manger (Practical)
- CKNG 104 Vegetables, Starches and Pasta (Theory)
- CKNG 105 Vegetables, Starches and Pasta (Practical)
- CKNG 106 Stocks, Soups, and Sauces (Theory)
- CKNG 107 Stocks, Soups and Sauces (Practical)
- CKNG 108 Breakfast and Dairy (Theory)
- CKNG 109 Breakfast and Dairy (Practical)
- CKNG 110 Basic Cooking Principles
- EQPT 108 Tools and Equipment
- MEAT 100 Meat, Seafood and Poultry Processing (Theory)
- MEAT 101 Meat, Seafood and Poultry Processing (Practical)
- MEAT 102 Meat, Seafood and Poultry Cooking (Theory)
- MEAT 103 Meat, Seafood and Poultry Cooking (Practical)
- MGMT 101 Kitchen Management
- SFTY 111 Safety, Sanitation and WHMIS

Note: On-campus students will prepare and serve meals in the campus cafeteria.

Professional Cooking Certificate

Location

- Moose Jaw
- Prince Albert

Start date

- Varies
  - September - Moose Jaw
  - September - Prince Albert

Duration

- 35 weeks

Admission requirements

- Grade 10
- English Language Requirement

Program overview

Are you a high school graduate, looking for a new career or a lifelong learner? Do you love to cook? Do you thrive in high-energy environments? Then check out Saskatchewan Polytechnic’s Professional Cooking program. Professional Cooking is Saskatchewan’s most recognized culinary training program and is quickly becoming a nationally and internationally recognized credential—it’s your fast track to a career.

Program participants gain fundamental skills in food preparation, cooking, time management, critical thinking and develop the confidence to advance their career in the world of food. Our graduates are working as cooks, kitchen managers, banquet chefs, sous chefs and chefs … in Saskatchewan, around the province, across Canada, on cruise ships, in vacation resorts and at upscale fishing lodges.

Professional Cooking is a one-year (35 week) certificate program offered at Saskatchewan Polytechnic Moose Jaw campus and Saskatchewan Polytechnic Prince Albert campus. We’ll give you the kind of hands-on training you need to work as part of a culinary team. Our low student-to-instructor ratio means lots of one-on-one time with your instructors—all Red Seal certified cooks and many Certified Chefs de Cuisine. You’ll build knowledge and practical skills in:

- basic cooking principles
- baking
- food presentation
- kitchen management
- meat, seafood and poultry preparation
- quantity food production
- short-order food production
- safety, sanitation and WHMIS

Our Kitchen is Your Classroom

Approximately 70% of your “class” time is hands-on training in Saskatchewan Polytechnic’s well-equipped kitchens. You’ll also get hands-on experience preparing foods for the campus cafeteria.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact...
the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

When you graduate, you’ll find employment opportunities in major hotels, restaurants, cruise ship companies, vacation destination resorts and catering facilities. There are jobs in institutional food service establishments, such as hospitals and care homes, and also in the growing retirement community market.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<tr>
<td>BAKE 114</td>
<td>Bakery 1 (Practical)</td>
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<tr>
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<td>Bakery 2 (Theory)</td>
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<td>BAKE 116</td>
<td>Bakery 3 (Theory)</td>
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<td>BAKE 117</td>
<td>Bakery 3 (Practical)</td>
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<td>CKNG 100</td>
<td>Food Presentation and Garnish (Theory)</td>
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<td>CKNG 101</td>
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<td>FOOD 102</td>
<td>Short Order Food Production</td>
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<td>FOOD 107</td>
<td>Aboriginal Cuisine</td>
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<td>MATH 281</td>
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<tr>
<td>MEAT 100</td>
<td>Meat, Seafood and Poultry Processing (Theory)</td>
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<tr>
<td>MEAT 101</td>
<td>Meat, Seafood and Poultry Processing (Practical)</td>
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<tr>
<td>MEAT 102</td>
<td>Meat, Seafood and Poultry Cooking (Theory)</td>
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<tr>
<td>MEAT 103</td>
<td>Meat, Seafood and Poultry Cooking (Practical)</td>
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<td>MGMT 101</td>
<td>Kitchen Management</td>
</tr>
<tr>
<td>SFTY 111</td>
<td>Safety, Sanitation and WHMIS</td>
</tr>
</tbody>
</table>

Recreation and Community Development Diploma

Location
- Saskatoon

Start date
- September

Duration
- 65 weeks
  - Year 1 - 31 weeks; Year 2 - 34 weeks

Admission requirements
- Grade 12 with the following subjects:
  - English Language Arts A30
  - English Language Arts B30
  - Any 30-level math
  - English Language Requirement

Note:
- Students will need to have experience with basic computer applications such as Microsoft Office prior to entering the program

Program overview

Leadership, volunteerism, social awareness—these are characteristics shared by people working in recreation and community development. It’s a growth industry, and Saskatchewan Polytechnic's new Recreation and Community Development program will help turn your passion into a dynamic career.

Be a recreation director, manager of sport, recreation and culture, community development officer, facility manager or special events manager. Your skills are in demand in rural and urban communities.

Recreation and Community Development (formerly Recreation and Tourism Management) is a two-year diploma program offered at Saskatchewan Polytechnic Saskatoon Campus. The comprehensive curriculum is relevant to real world trends, thanks to strong support from the industry. You’ll learn:

- event planning
- communication and computer skills
- community and economic development
- environmental sustainability
- management skills
School of Hospitality and Tourism
SASK POLYTECH Programs

- leadership skills
- legal aspects
- camp practices

With average class sizes of 20-25 students, you’ll enjoy a personalized learning experience and one-on-one time with instructors. You’ll gain both industry-specific knowledge and core management skills.

Get Real

The program provides a variety of opportunities for you to apply what you’ve learned in practical labs and projects, in work experiences and in volunteer opportunities. You’ll develop the professional skills you need to help build active, healthy, sustainable communities.

How Many Programs Have ‘Camp’ on the Curriculum?

We have our own outdoor camp on the north side of Candle Lake. You and your classmates will spend one week at Fall Camp and another week at Winter Camp planning outdoor programs and leading outdoor education and recreational activities. It’s a great environment for building your cultural, environmental and community development skills.

Start Building Your Network

Start building your network with student membership in industry associations, including Saskatchewan Parks and Recreation Association (SPRA), Saskatchewan Economic Development Association (SEDA) and Saskatchewan Association of Recreation Practitioners (SARP).

Turn Your Diploma into a Degree

Saskatchewan Polytechnic is your ladder into the Sport and Recreation Studies program at the University of Regina, the Business Administration program at Husson University/University of Fredericton in New Brunswick, the Global Tourism Management program at Royal Roads University in Victoria, B.C. and the Tourism Management program at Vancouver Island University.

Career Opportunities

When you graduate, look for management and administrative opportunities in the public sector: municipal leisure departments, regional community development organizations, health districts, fitness facilities and national parks.

Transfer credit

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Courses

**Year 1 - Semester 1**

- COAP 179 Outlook, Word and Desktop Publishing
- COMM 295 Business and Technical Writing
- COMP 174 Introduction to Microsoft Excel 1
- COMP 175 Introduction to Microsoft Excel 2
- MKTG 170 Introduction to Marketing
- PE 181 Personal Health and Wellness in Communities
- PSYC 184 Introductory Psychology
- RSCH 200 Research Literacy
- RT 170 Introduction to Recreation and Community Development
- RT 185 Program Planning 1
- SOCI 170 Sociology

**Year 2 - Semester 2**

- ACCT 170 Financial Accounting
- COM 113 Interpersonal Communications
- ENVR 151 Environmental Sustainability
- LEAD 180 Leadership and Group Dynamics
- MGMT 106 Organizational Management
- PRAC 171 Orientation to Recreation and Community Development Services
- RT 186 Inclusive Leisure
- RT 187 Program Planning 2
- RT 202 Diversity and Cultural Foundations

**Year 2 - Semester 3**

- ACCT 200 Managerial Accounting
- ADMN 182 Introduction to Management
- CAMP 280 Programming Lab
- MGMT 204 Introduction to Recreation Facilities
- PR 281 Community Public Relations
- RT 191 Introduction to Microeconomics
- RT 200 Event Management
- RT 289 Community Development
- RT 292 Outdoor Programming

**Year 2 - Semester 4**

- BLAW 282 Law and Risk Management for Managers
- CAMP 281 Outdoor Programming Lab
- LEAD 200 Applied Leadership
- PE 282 Sports Management
- RT 171 Economic Development
- RT 201 Feasibility Studies
- RT 203 Event Management Lab
- SEM 201 Practicum Seminar
- TOUR 287 Community Tourism Management

**Year 2 - Semester 5**

- PRAC 293 Practicum

Retail Meat Specialist
Applied Certificate

Location
School of Hospitality and Tourism
SASK POLYTECH Programs

- Delivery is subject to needs assessment.

Start date

August 19, 2019 - January 31, 2020

For more information, contact Don Cyr at don.cyr@saskpolytech.ca

Duration

- 22 weeks

Admission requirements

- Grade 10
- English Language Requirement

Note

Employers and/or supervisors of the practicum may require a Criminal Record Check and/or security clearance before you can complete the program requirements.

Program overview

Retail Meat Specialist is an applied certificate program offered on-campus and in partnership with Saskatchewan regional colleges. It will help you develop the skills you need to be successful in the meat-cutting industry. Throughout this innovative program, you will benefit from extensive hands-on experience needed to work in "state of the art" meat cutting facilities. Our comprehensive curriculum and highly trained instructors will help you develop the professional skills you need for success in the industry. The program is built around food safety and focuses on:

- muscle and skeletal structures
- preparing pork, beef, lamb and poultry
- curing and smoking meats
- merchandising seafood
- value-added oven ready products
- sanitation

A two-week practicum is an integral part of the program. It provides you with the opportunity to apply theory to practice. You will also have the opportunity to further develop your skills by working in the Saskatchewan Polytechnic meat market.

Career Opportunities

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<td>Fundamental Communication Skills</td>
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<tr>
<td>MATH 281</td>
<td>Applied Mathematics</td>
</tr>
<tr>
<td>MEAT 106</td>
<td>Processing Lamb, Goat and Seafood</td>
</tr>
<tr>
<td>MEAT 195</td>
<td>Muscle and Skeletal Structure</td>
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<tr>
<td>MEAT 281</td>
<td>Processing Pork</td>
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<td>MEAT 282</td>
<td>Processing the Hind of Beef</td>
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<tr>
<td>MEAT 283</td>
<td>Processing the Front of Beef</td>
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<tr>
<td>MEAT 285</td>
<td>Processing Poultry</td>
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<td>MEAT 286</td>
<td>Curing and Smoking</td>
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<td>MEAT 287</td>
<td>Sausage Making</td>
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<td>MEAT 288</td>
<td>Value-Added Products</td>
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<td>PRAC 193</td>
<td>Practicum</td>
</tr>
<tr>
<td>SFTY 176</td>
<td>Safety and Tools</td>
</tr>
</tbody>
</table>

Register online at saskpolytech.ca or call 1-866-467-4278
Aboriginal Policing Preparation
Certificate

Location
- Prince Albert
- Regina
- Saskatoon

Start date
- September

September 3, 2019 - April 17, 2020 (Prince Albert, Regina, and Saskatoon)

For more information about delivery of this program, contact:
- Kevin Krawec at 306-765-1737 or kevin.krawec@saskpolytech.ca
- Terry Fleury at 306-765-1733 or terrance.fleury@saskpolytech.ca

Duration
- 30 weeks

Admission requirements
- Grade 12
- English Language Requirement

Note
- Accepted applicants are required to provide evidence of a Criminal Record Check for access to police agencies for tours and prior to entering the work experience component of the program. At the discretion of the community agency, you may be declined access to a tour or work placement based on the results of the completed security clearance check. Students who do not have an acceptable security clearance may be unable to complete the following courses: LEGL 142 (Ethics in Policing Careers), LEGL 143 (Preparation for Police Assessments), LEGL 144 (Criminal Investigation), and WORK 154 (Work Experience). You must complete these courses to graduate from the program.
- Accepted applicants will be asked to complete a security clearance form prior to the start of the program. At the discretion of the police agency, you may be denied access to a tour or work placement based on the results of the completed security clearance check. Students who do not have an acceptable security clearance may be unable to complete the following courses: LEGL 142 (Ethics in Policing Careers), LEGL 143 (Preparation for Police Assessments), LEGL 144 (Criminal Investigation), and WORK 154 (Work Experience). You must complete these courses to graduate from the program.
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Program overview
Demand is growing for police officers trained with an Indigenous perspective. Policing is a career that will challenge and reward you. The pay and benefits are great, but you need to be committed—to community, to making a difference, to working with people from all walks of life.

Sask Polytech's Aboriginal Policing Preparation program will train you for a career that goes beyond standard policing skills to include cultural awareness and personal growth. When you graduate, you'll be able to apply for federal, provincial, municipal and community policing positions.

The program is available to everyone regardless of their cultural background. You can take the 30-week program through continuing education or on campus in Prince Albert, Regina and Saskatoon. Off campus options through Indigenous bands and Regional Colleges are available.

Our curriculum has a unique Aboriginal focus, while covering the major requirements of law enforcement training. Your instructors are experienced in policing, so you're learning from people who've been on the front lines of community law enforcement. Your studies will focus on:
- basic investigative techniques;
- criminal justice system and criminal law;
- dealing with addictions, family violence, suicide intervention;
- developing strong communication skills; and
- historic and contemporary Aboriginal issues.
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Real World Focus

This program prepares you for a job in policing. You’ll build job search skills by writing practice exams and participating in mock interviews. You’ll learn how to handle police service assessment processes. Best of all, you’ll participate in a work experience that gives you a chance to apply what you’ve learned in class in a community policing setting—and also to make connections with potential employers.

Climb the Education Ladder

Many of your courses are transferable to our Correctional Studies program, giving you a head start on earning a diploma. You can also transfer credits to University of Regina degree programs in Justice or Police Studies.

9 out of 10 Grads Give Program Thumbs Up

In recent surveys, 9 out of 10 Aboriginal Policing Preparation grads say they are satisfied with the quality of their training, and 9 out of 10 say it effectively prepared them for employment in the policing field.

Career Opportunities

When you graduate, you’ll be able to apply for federal, provincial and municipal policing positions. Look for jobs with the RCMP, Armed Forces, city police services, First Nations communities, border services, corrections, airport security, mine security and private security companies.

For more information, contact Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit

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Courses

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CLTR 120</td>
<td>Diversity</td>
</tr>
<tr>
<td>COMM 119</td>
<td>Writing Skills</td>
</tr>
<tr>
<td>COMM 224</td>
<td>Presentation Skills</td>
</tr>
<tr>
<td>COMM 227</td>
<td>Interviewing</td>
</tr>
<tr>
<td>CORR 100</td>
<td>Managing Clients in Law Enforcement Settings</td>
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<tr>
<td>CORR 101</td>
<td>Control Tactics</td>
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<tr>
<td>CORR 167</td>
<td>Criminal Justice System</td>
</tr>
<tr>
<td>COUN 160</td>
<td>Crisis Intervention</td>
</tr>
<tr>
<td>LAW 162</td>
<td>Criminal Law</td>
</tr>
<tr>
<td>LAW 163</td>
<td>Law Enforcement Reporting Procedures</td>
</tr>
<tr>
<td>LEGL 141</td>
<td>Policing in Canada</td>
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<tr>
<td>LEGL 142</td>
<td>Ethics in Policing Careers</td>
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<tr>
<td>LEGL 143</td>
<td>Preparation for Police Assessments</td>
</tr>
<tr>
<td>LEGL 144</td>
<td>Criminal Investigation</td>
</tr>
<tr>
<td>NAST 120</td>
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</tr>
<tr>
<td>PERS 101</td>
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<tr>
<td>PERS 102</td>
<td>Personal Wellness 2</td>
</tr>
<tr>
<td>SPSY 119</td>
<td>Interpersonal Violence Strategies</td>
</tr>
<tr>
<td>SPSY 140</td>
<td>Addictions and Mental Health</td>
</tr>
<tr>
<td>WORK 135</td>
<td>Work Experience</td>
</tr>
</tbody>
</table>

Correctional Studies
Diploma

Location

- Prince Albert

Start date

- September

Duration

- 64 weeks:
  - Year 1 - 32 weeks; Year 2 - 32 weeks For more information on this program, please contact:
    - Kevin Krawec at 306-765-1737 or kevin.krawec@saskpolytech.ca
    - Terry Fleury at 306-765-1733 or terrance.fleury@saskpolytech.ca

Admission requirements

- Grade 12
- English Language Requirement

Note

- Accepted applicants are required to provide evidence of a Criminal Record Check for access to police agencies for tours and prior to entering the work experience component of the program. At the discretion of the community agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check. The cost of the Criminal Record Check is your responsibility. Program applicants should be aware that, for the purpose of the Criminal Record Check, they must request this from the police service in their home community, whether it is from a municipal/city police service or from the RCMP detachment that services their home area.

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- If you have a criminal record for which a record suspension (pardon) has not been granted, or a matter that is currently before the courts, you may be unable to complete the program.

- Accepted applicants will be asked to complete a security clearance form prior to the start of the program. At the discretion of the police agency, you may be denied access to a tour or work placement based on the results of the completed security clearance check. Students who do not have an acceptable security clearance may be unable to complete the following courses: CORR 175 (Introduction to Corrections), CORR 240 (Institutional Corrections), CORR 242 (Elements of Security), CORR 243 (Major Incidents), WORK 124 (Corrections Work Experience). You must complete these courses to graduate from the program.

Program overview

Consider the benefits of a career in corrections. One, you’re helping offenders make positive changes in their lives. Two, you’re helping make our communities safer. Three, you’re earning a great salary. Four, your skills are in demand.

Saskatchewan Polytechnic’s Correctional Studies program will get you started in a law enforcement career in just two years. Our graduates are working in correctional institutions, youth facilities, healing lodges, drug treatment centres and community-based justice programs.

Correctional Studies is a two-year diploma program offered at Saskatchewan Polytechnic in Prince Albert.

We emphasize a hands-on approach to learning, so you’ll get both correctional theory and practical skills. You’ll learn from instructors who have experience working in the justice system. They’ll guide you in:

- criminology and criminal justice system
- case management, communication and problem-solving skills
- ethics and professionalism in corrections
- managing conflict, aggression and violence
- the role of community corrections, youth justice initiatives, restorative justice
- suicide intervention and prevention techniques
- working with offenders from diverse cultural backgrounds
- the importance of healthy lifestyles, teamwork and workplace wellness

What's the Job Really Like? A key focus of your program is the work experience. You'll get a taste of corrections work - you will participate in one of two scheduled work experiences. This may be in a federal or provincial correctional institution or with a correctional agency or community-based program.

2 More Years to a Degree - Use your diploma to get a head start on a degree. With just two more years, you can earn a degree from Husson University/University of Fredericton in New Brunswick, Lethbridge College in Alberta, Royal Roads University in B.C., or the University of Regina. A university degree can open the door to career advancement in parole and community-based services.

Career Opportunities

When you graduate, you’re prepared for entry-level jobs in a variety of settings. Because our program is delivered in partnership with federal and provincial agencies, you’ll be eligible for entry-level jobs in federal or provincial correctional institutions. You could also work in a youth facility, healing lodge, halfway house, drug treatment centre, probation/parole office, community-based justice program or with a private security company.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit

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Courses

Year 1 - Semester 1

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<tr>
<td>CORR 167</td>
<td>Criminal Justice System</td>
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<tr>
<td>CORR 175</td>
<td>Introduction to Corrections</td>
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<td>LAW 162</td>
<td>Criminal Law</td>
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<td>PERS 101</td>
<td>Personal Wellness 1</td>
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<td>SPsy 124</td>
<td>Professionalism and Ethics in Corrections</td>
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Year 1 - Semester 2

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<th>Course Code</th>
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<td>CORR 134</td>
<td>Abnormal Behaviour</td>
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<td>CORR 135</td>
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<td>CORR 176</td>
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<td>CORR 177</td>
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<td>CORR 188</td>
<td>Offender Programming</td>
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<td>HUMD 142</td>
<td>Lifespan Issues</td>
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<td>LEGL 141</td>
<td>Policing in Canada</td>
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<td>LEGL 161</td>
<td>Restorative Justice</td>
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<td>NAST 120</td>
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<tr>
<td>PERS 102</td>
<td>Personal Wellness 2</td>
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Career Opportunities
When you graduate, you'll be prepared to work in a variety of court services settings, including provincial court, the court of Queen's Bench and prosecutors' offices. If you're more interested in administration, explore job opportunities with law firms, corporate boards, court reporting agencies and more.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit
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Courses
- CLTR 100 Diversity
- CORR 100 Managing Clients in Law Enforcement Settings
- CORR 159 Extrajudicial Programs
- CORR 167 Criminal Justice System
- LAW 162 Criminal Law
- LAW 165 Legal Acts, Statutes and Regulations
- OPRL 142 Court Office Systems and Procedures
- SPSY 160 Professional Behaviour & Ethics
- WORK 168 Work Experience

Disability Support Worker Certificate

Location
- Saskatoon

Start date
- September

Duration
- 37 weeks

Admission requirements
- Grade 12
- English Language Requirement

Note
- Admitted students will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search prior to entering required coursework and practicum with children, youth and adults. At the discretion of the agency, a student may be declined access to a practicum placement based on the contents of the Criminal Record Check, personal interview and/or medical assessment. A student must complete the practicum placements to graduate from the program. The cost of the Criminal Record Check and Vulnerable Sector Search is the student's responsibility.
- Program applicants should be aware that, for the purpose of the Criminal Record Check and Vulnerable Sector Search, they must request this from the police service in their home country/community, whether it is from a municipal/city police service or from the RCMP detachment that services their home area.
- Proof of current Standard First Aid and CPR 'C' or equivalent may be required prior to entry into a practicum.

Program overview
Do you like working with people? Do you believe everyone has the right to live life to the fullest? Saskatchewan Polytechnic's Disability Support Worker program offers the training you need to be a community service worker, supportive living worker, educational assistant or life enrichment worker.

Disability support workers are entrusted with the basic personal care of participants of all ages in residential and vocational settings. You'll need strong communication skills, a common-sense approach to problem solving, an intuitive understanding of human behaviour and a steady personality.

Disability Support Worker is a one-year certificate program offered at Saskatchewan Polytechnic Saskatoon campus; It is also offered through distance and/or continuing education. Learn from experienced instructors how to provide compassionate, respectful care for individuals with challenging needs and disabling conditions.

You'll develop knowledge and practical skills in:
- basic care skills
- behavioural support and crisis prevention
- disability support services
- exceptionalities and human growth & development
- interpersonal, professional and employability skills
- person-centred planning
- quality of life enhancements

Enhancing Lives
As a disability support worker, you'll be working with people of all ages and varying levels of ability. The program not only provides the practical skills you'll need. It also provides a broad knowledge
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SASK POLYTECH Programs

base. You'll have the tools you need to enhance individual lives, while also build a rewarding career for yourself.

Practical Experience

Practical experience is an essential part of your program. You'll get direct experience helping individuals in two practicums with residential, vocational centre-based or community-based agencies. In caring, secure and stimulating environments, you’ll develop your skills in providing basic care, planning programs and implementing activities.

Career Opportunities

When you graduate, you’ll be qualified to work as a disability support worker, supportive living worker, educational assistant, vocational training worker or community residential worker. Work environments include health care and long-term care facilities, educational institutions, group homes and more. Look for job opportunities with community-based agencies, school systems and government agencies.

For more information, contact the Student Employment Services at a campus nearest you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-saskpolytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-saskpolytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx)

Courses

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<tr>
<td>EMPL 180 Employability Skills</td>
<td>CLTR 100 Diversity</td>
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<tr>
<td>HLTH 104 Wholistic Health</td>
<td>COMM 291 Interpersonal Communications</td>
</tr>
<tr>
<td>ORTN 382 Orientation to Practicum</td>
<td>HLTH 182 Quality of Life Enhancements</td>
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<tr>
<td>PERS 180 Basic Care Skills</td>
<td>HUMD 188 Human Growth and Development</td>
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<tr>
<td>PLAN 182 Person-Centredness</td>
<td>HUMS 180 Comprehensive Behavioural Support</td>
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<tr>
<td>SEM 184 Disability Support Worker Integration Seminar 1</td>
<td>PRAC 382 Practicum 1</td>
</tr>
<tr>
<td>SFTY 184 Introduction to Crisis Prevention</td>
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<tr>
<td>SPSY 101 Introduction to Disability Support Worker and Services</td>
<td></td>
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<tr>
<td>SPSY 186 Understanding Exceptionalities 1</td>
<td></td>
</tr>
</tbody>
</table>

Note: Students must be admitted to the program before taking the practicums.

Early Childhood Education Certificate

Location

- Prince Albert
- Regina
- Saskatoon

Start date

- September (Saskatoon, Regina, Prince Albert)

Duration

- 38 weeks
  - Note: You may take the following courses prior to application and acceptance to the program, but must apply thereafter: COMM 291, ECE 106, ECE 142, EMPL 180, HUMD 100, and HUMD 183.

Admission requirements

- Grade 12 with English Language Arts A30 and English Language Arts B30
- English Language Requirement

Program overview

Young children making the transition from home to child care or preschool need an enthusiastic, positive role model. They need someone dedicated to encouraging learning and growth. They need … you.

Register online at saskpolytech.ca or call 1-866-467-4278  Sask Polytech Calendar 2019-2020 104
Saskatchewan Polytechnic's one-year Early Childhood Education (ECE) certificate program gives you the knowledge and skills you need to work in a variety of child care settings. You can take the program in Prince Albert, Regina or Saskatoon, through regional colleges around the province, or through distance learning wherever you live.

The ECE program integrates current research on early childhood education into all of your courses. You'll develop strong communication, observation and documentation skills. You'll receive well-rounded training in:

- child and adolescent development
- child guidance techniques
- role of early childhood educators
- role of play in programming
- values and practice of early childhood education
- programming for creative arts, language, cognitive, social and emotional development

The emphasis on observation and documentation is market-driven—these are essential to building positive relationships with families, and employers are eager to hire grads with well-developed skills.

Working with Children - You'll interact with young children throughout your program, thanks to Saskatchewan Polytechnic’s partnerships with community and campus child care centres. Saskatoon students also have access to a unique learning opportunity—10% of all your courses are based on work in our Early Childhood Demonstration Centre.

At the end of your first and second semesters, you'll also participate in practicums (i.e., 4 weeks and 6 weeks), in a child care or preschool setting. This real-world learning gives you a competitive edge in the workforce.

Want to Open More Doors? When you graduate, you’re eligible to apply to become a licensed Level II Early Childhood Educator (ECE). Many child care centres and preschools only hire licensed ECEs. You can also go on to earn a diploma in Early Childhood Education with one more year of study. Or, you can transfer some of your credits to the University of Regina's Bachelor of Education degree program in Elementary Education.

Career Opportunities

Early childhood educators are in demand in Saskatchewan—and employers are especially eager to hire Saskatchewan Polytechnic grads because of your well-rounded knowledge and up-to-date skills. Look for ECE jobs in child care centres, preschools, family day homes, elementary school settings and even private homes.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

Courses

**Semester 1**

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<td>ECE 100</td>
<td>Introduction to Early Childhood Education</td>
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<td>ECE 106</td>
<td>Role of Play in Early Childhood Education</td>
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<td>ECE 142</td>
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<td>ECE 181</td>
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<td>HUMD 183</td>
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**Semester 2**

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**Semester 3**

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<td>Roles and Values of the Early Childhood Educator</td>
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<td>ECE 102</td>
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<td>EMPL 180</td>
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<td>PRAC 105</td>
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Note: Students may take the following courses prior to admission to the program, but must apply thereafter: COMM 291, ECE 106, ECE 142, EMPL 180, HUMD 100, and HUMD 183.

**Early Childhood Education Diploma**

**Location**

- Regina
- Saskatoon

**Start date**

- September
School of Human Services and Community Safety
SASK POLYTECH Programs

Duration

- 38 weeks

Admission requirements

- Early Childhood Education Certificate (Prince Albert Campus, Regina Campus, or Saskatoon Campus)
- English Language Requirement

Note

- Accepted applicants are required to provide evidence of a Criminal Record Check prior to entering required coursework with children. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check. If you do not complete the practicum, you will not graduate from the program. The cost of the Criminal Record Check is your responsibility.

- Your immunization record and current Mantoux (Tuberculin) testing is required for your practicum placement.

Program overview

As an early childhood educator, you play a big role in how kids shape their lifelong view of learning. You connect with kids and their families. You use reading, writing, art, music, drama and science to enrich young lives. It’s a big responsibility … and a lot of fun.

Saskatchewan Polytechnic’s two-year Early Childhood Education (ECE) diploma program is offered on-campus in Saskatoon or Regina, or through regional colleges or through distance learning wherever you live.

It is a highly respected program that integrates the most current research on early childhood education. You’ll build on the knowledge, attitudes and skills you developed in the ECE certificate program, including:

- administration and child care regulations
- children with diverse abilities
- child guidance techniques
- family and community relationships
- observation, assessment and documentation
- play environments and program planning
- programming for infants, toddlers and school age children

Build Your Confidence and Independence - The ECE diploma program continues where the ECE certificate program left off. Throughout the year, you’ll have opportunities to work independently with children in a variety of child care situations. You’ll also participate in two 6-week practicums in a child care or preschool setting.

Through practical experience, you’ll get the feedback you need to develop best practices, recognize stages of development and understand the impact of environment on behaviour. Saskatoon students will participate in course work at the Early Childhood Demonstration Centre.

Become a Level III ECE When you graduate, you’re eligible to apply to become a licensed Level III Early Childhood Educator (ECE). If you plan on becoming a child care centre director, you must have your ECE III. If you’re interested in going farther, you’ll be able to transfer some of your credits to the University of Regina’s Bachelor of Education degree program in Elementary Education.

Career Opportunities

There’s high demand for Level III ECEs in Saskatchewan. Your diploma lets you work in group care settings with children from birth to age 12. Start your career in a child care centre, preschool, elementary school, Kids First/Aboriginal Head Start program, family day homes and private homes.

Get involved in programming for infants and children with diverse abilities, or become an inclusion coordinator, preschool teacher, child care centre director, early childhood interventionist or family support worker.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

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<td>ECE 221</td>
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<td>SPSY 279</td>
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<td>SPSY 289</td>
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| Semester 3       |                   |

Register online at saskpolytech.ca or call 1-866-467-4278  Sask Polytech Calendar 2019-2020  106
School of Human Services and Community Safety
SASK POLYTECH Programs

ADMN 204 Administrative Skills for Early Childhood Educators
COMM 294 Teamwork Skills
ECE 226 Programming for School Age Children
HUMD 200 Child Guidance 2
PD 240 Professionalism in Early Childhood Education

Semester 4
PRAC 245 Practicum 4

Note: Students must be admitted to the program before taking the practicums.

Educational Assistant Certificate

Location
- Saskatoon

Start date
- September

Duration
- 36 weeks
  - Students may take the following courses prior to application and acceptance to the program, but must apply thereafter: CLTR 180, COMM 291, EMPL 180, HUMD 100, PERS 180, and SFTY 184.

Admission requirements
- Grade 12
- English Language Requirement

Note
- Accepted applicants may be required to provide evidence of a Criminal Record Check and/or Vulnerable Sector Checks prior to entering the practicum component of the program. At the discretion of the practicum agency, the student may be declined access to a clinical or work placement based on the contents of the Criminal Record Check and Vulnerable Sector Checks. The cost of the Criminal Record Check and Vulnerable Sector Checks are the responsibility of the student.

Program overview

If you like working one-on-one with kids with different needs, and you want to see them included in the classroom, becoming an educational assistant might be the career for you. Educational assistants provide the all-important one-on-one support that makes today’s inclusive classrooms possible.

The Educational Assistant program is respected by school boards province-wide. We’ll teach you the skills and give you the hands-on experience you need to make a lasting difference in a child’s life.

Note: The Regina Campus delivery of this program is suspended, effective July 1, 2016.

Saskatchewan Polytechnic offers the one-year Educational Assistant certificate program in Saskatoon, as well as through regional colleges around the province. Or, you can take the certificate through distance education. Whether you study on campus or via distance learning, you’ll participate in two 4-week practicums - one in an elementary school, one in a high school.

Why Practicums? Putting you in the classroom lets you apply what you’ve learned to helping children with different needs. You’ll see first hand the kind of technology being used and the curriculum being taught. You’ll have a package of guidance strategies to help deal with situations as they arise. Most importantly, you’ll gain a solid understanding of what to expect in a real classroom with real kids.

What You’ll Learn - Your job is to assist classroom teachers by working with children or youth with diverse learning needs. Saskatchewan Polytechnic provides the knowledge and skills you’ll need, including:
- basic care skills (lifting to feeding)
- classroom management and crisis prevention techniques and strategies
- communication skills and professionalism
- cultural awareness and family dynamics
- exceptionalities (causes, characteristics and accommodations)
- social, emotional, cognitive development (children and teens)
- supporting teachers in specific subject areas
- your role in the classroom

“Our students always say that the practicums are their favourite part of the program. They get to see what the job is really all about. It’s one thing to learn from lectures and textbooks, but being in the classroom really puts it in perspective.” - Program Head

Career Opportunities

Educational Assistant graduates work in elementary, junior high and high schools in communities around the province. School divisions offer full time, part time and casual positions. You might be based in the classroom or resource room. You might assist with a lunch program or a before/after school program.

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You can also explore career opportunities outside the traditional school setting—in youth centres, community centres, care facilities and alternative education programs.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Admission requirements

- Grade 12
- minimum 60% in either English A30 or B30
- Biology 30
- English Language Requirement

Note:

- Accepted applicants may be required to provide evidence of a Criminal Record Check prior to entering the practicum. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check. The cost of the Criminal Record Check is your responsibility.
- Employers and/or supervisors of students on practicum may require a valid driver's license.
- CPR 'A' and Standard First Aid may be required for practicum placements.
- Current immunization according to the Canadian immunization guidelines is recommended.
- Students may be required to complete WHMIS before attending a work experience or practicum course.

Program overview

This program is delivered by distance learning in cooperation with the Funeral and Cremation Services Council of Saskatchewan. The program includes work-integrated learning opportunities through an orientation to the funeral services industry and two practicums.

Your studies focus on pathophysiology, embalming, restorative arts, communication and professionalism. You will learn how to prepare human remains for funerals and burial. This program works together with the practical components in the sixteen-week practicum that are essential to integrating the core concepts with practice.

The following learning outcomes are integrated into the program:

- workplace professionalism
- communication
- observation and learning in the workplace
- basic safety training
- professional ethics

As a student in the Embalmer program, you must also register as a student with the Funeral and Cremation Services Council of Saskatchewan (pdf). The Council oversees the internships in funeral homes after you have completed the certificate.

Before registering for a course, if you are not already employed by a funeral home or not a member of the council, please contact the program head, Dayna Chamberlain at 306-690-6534 or dayna.chamberlain@saskpolytech.ca for more information.
Career Opportunities

Embalmers perform some or all of the following duties:

- Preserve, sanitize and prepare human remains for funeral services
- Perform cosmetic and restorative work on human remains

Embalmers in the province are usually duel licensed as Funeral Directors. Opportunities exist throughout the province, and a licensed Saskatchewan Embalmer may work across Canada. Licensed Saskatchewan Embalmers are encouraged to check with the provincial regulatory board in the province they wish to work in, for more information.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

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<td>Written and Oral Communications</td>
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<td>FNRL 180</td>
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<td>FNRL 182</td>
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<td>FNRL 183</td>
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<td>LEAD 180</td>
<td>Leadership and Group Dynamics</td>
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<td>MICR 185</td>
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<td>NAST 102</td>
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<td>ORTN 199</td>
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<td>PATH 186</td>
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<td>PRAC 176</td>
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<td>PRAC 277</td>
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<td>WORK 192</td>
<td>Core Work Experience</td>
</tr>
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Emergency Communications

Applied Certificate

Location

- Prince Albert

Start date

September 3, 2019 - January 31, 2020

Duration

- 20 weeks

Admission requirements

- Grade 12
- English Language Requirement

Note:

- Students will need to have experience with Microsoft Office prior to entering the program.
- Students are expected to have keyboarding skills prior to entering the program.
- Accepted applicants are required to provide evidence of a Criminal Record Check for access to emergency services sites for tours and prior to entering the work experience component of the program. At the discretion of the community agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check. The cost of the Criminal Record Check is your responsibility. Program applicants should be aware that for the purpose of the Criminal Record Check, they must request this from the police service in their home community, whether it is a municipal/city police service or from the RCMP detachment that services their home area.
- If you have a criminal record for which a record suspension (pardon) has not been granted, or a matter that is currently before the courts, you may be unable to complete the program.

Program overview

Emergency Communications professionals are dispatchers who operate radios and other telecommunication equipment to dispatch emergency vehicles and co-ordinate the activities of drivers and other personnel. This includes 911 personnel, secondary emergency agencies such as fire, police and ambulance and employer emergency call centres. It can also include working in non-emergency situations such as taxi dispatchers and others.

Emergency Communications is a 20-week applied certificate program offered at Saskatchewan Polytechnic Prince Albert Campus.

We emphasize a hands-on approach to learning, so you'll gain both theory and practical skills. You'll learn from instructors who have experience working in emergency communications. Your studies will focus on:
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• an introduction to public safety communications
• call processing
• emergency services procedures
• law for emergency communications
• document processing in emergency communications
• diversity

For more information, please contact:

• Terry Fleury at terrance.fleury@saskpolytech.ca or 306-765-1733
• Kevin Krawec at kevin.krawec@saskpolytech.ca or 306-765-1737

What's the Job Really Like?

Communication Operator is a profession with a high degree of job satisfaction and the ability to make a difference to someone in a crisis. It is a career that requires unique training, which will enable you to serve the public in a front line capacity, ensuring public and officer safety, with a team that is highly trained in responding to emergencies.

Career Opportunities

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<td>NAIL 010</td>
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<td>PRAC 011</td>
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<td>SANT 010</td>
<td>Sanitation, Safety and Hygiene for Nail Technicians</td>
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Esthetician-Skin Care Technician Certificate

Location

• Prince Albert

Start date

September 9, 2019 - May 29, 2020

Esthetician-Nail Technician Certificate of Achievement

Location

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School of Human Services and Community Safety
SASK POLYTECH Programs

10:00 AM to 4:00 PM, Monday to Friday

Duration

- 35 weeks

Admission requirements

- Grade 10
- English Language Requirement

Note

- Standard First Aid and CPR Level ‘A’ are required for occupational and/or clinical placement.

Program overview

Esthetician-Skin Care Technician is a certificate program delivered on-campus in the evenings. It provides knowledge and skill development in preventative skin care and treatments to keep skin healthy and attractive.

You will receive training in:

- skin care and facials
- make-up and application techniques
- eyebrow shaping
- waxing and tinting
- eyelash application and tinting
- manicures
- pedicures
- epilation/unwanted hair removal
- specialized skin care
- spa and body treatments

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards journeyperson status. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

Graduates may find employment in salons, spas and wellness centres.

Transfer Credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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Funeral Director Certificate

Location

- Online

Start date

September and January

Duration

- 32 weeks

Admission requirements

- Grade 12
- minimum 60% in either English A30 or B30
- English Language Requirement

Note:

- Accepted applicants may be required to provide evidence of a Criminal Record Check prior to entering the practicum component of the program. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record.
School of Human Services and Community Safety
SASK POLYTECH Programs

Check. The cost of the Criminal Record Check is your responsibility.

- Employers and/or supervisors of students on practicum may require a valid driver's license.
- CPR ‘A’ and Standard First Aid may be required for practicum placements.
- Current immunization according to the Canadian immunization guidelines is recommended.

Program overview

The Funeral Director certificate program is delivered by distance learning in cooperation with the Funeral and Cremation Services Council of Saskatchewan. The program includes work-integrated learning opportunities through an orientation to the funeral services industry and two practicums.

As a Funeral Director, you will learn how to coordinate and arrange all aspects of funeral services. Your studies will focus on professionalism, leadership, basic psychology, and arranging and directing funeral services.

The following learning outcomes are integrated into the program:

- workplace professionalism;
- communication;
- observation and learning in the workplace;
- basic safety training; and
- professional ethics.

As a student, you will study a variety of courses specific to being a funeral director. If you are a compassionate person interested in helping people, this program can help you develop the skills you need to support individuals who are coping with death. You'll gain knowledge and training to provide them with essential services involved in the final arrangements for loved ones.

This program is delivered by home study and work experience/practicum placements. The home study, involving print correspondence and online courses, allows you to remain in your home community to do your course work; you are not required to move to take this program, but you may need to travel for exams and work experiences/practicums.

Work experience/practicum placements will take place in both rural and urban locations. Your placement may be in a location outside your home community; therefore, you may incur extra expenses.

As a student in the Funeral Director program, you must also register as a student with the Funeral and Cremation Services Council of Saskatchewan (pdf) (FCSCS). The Council oversees the internships in funeral homes after you have completed the certificate.

Before registering for a course, if you are not already employed by a funeral home or not a member of the council, please contact the program head, Dayna Chamberlain at 306-690-6534 or dayna.chamberlain@saskpolytech.ca for more information.

Career Opportunities

Funeral Directors are employed by funeral homes. In Saskatchewan, opportunities exist in both rural and urban centres. Many Funeral Directors also choose to obtain their Embalmer certificate and license.

As a licensed Funeral Director in Saskatchewan, you may apply to work in other provinces as well. Check with the provincial regulatory board in each province for their requirements.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>COAP 178</td>
<td>Computer Applications for Funeral Services</td>
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<tr>
<td>COM 101</td>
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<td>COMM 291</td>
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<td>ETHC 184</td>
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<td>FNRL 181</td>
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<td>FNRL 282</td>
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<td>LEAD 180</td>
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<td>NAST 102</td>
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<td>PD 143</td>
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<td>PRAC 176</td>
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<td>PRAC 278</td>
<td>Funeral Director Practicum</td>
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<td>PSYC 160</td>
<td>Psychology 1</td>
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<td>PSYC 280</td>
<td>Psychology of Grief</td>
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<tr>
<td>WORK 192</td>
<td>Core Work Experience</td>
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</table>

Hairstylist Certificate

Location

- Prince Albert
School of Human Services and Community Safety
SASK POLYTECH Programs

Start date
- August, January

Duration
- 45 weeks

Admission requirements
- Grade 11
- English Language Requirement

Note
- Standard First Aid and CPR Level 'A' are required for practicum placement.

Program overview
Hairstylist is a certificate program. Hairstylists who want to work in the trade are legally required to first complete a 1500 hour pre-employment program.

You will learn how to perform cutting, colouring, highlighting, texture service and styling techniques on hair and an introduction to wigs, hairpieces, skin and nails. You will also develop artistry, salon management and customer service and communication skills.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards journeyperson status. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities
Graduates may find employment in a variety of positions.
- artistics and/or technical educators
- hairstylists
- hair colour technicians
- creative hair designers
- manicurists
- platform artists
- sales representatives
- salon owners
- salon receptionists and managers
- wig stylists

Transfer credit

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Courses
- BUS 101 Salon Operations
- ESTH 100 Introduction to Skin Care and Makeup Techniques
- HAIR 100 Foundations of Hairstyling
- HAIR 101 Shampoos and Treatments
- HAIR 102 Hairstyling and Braiding Principles
- HAIR 103 Conventional Wet Styling
- HAIR 104 Thermal Styling
- HAIR 105 Chemical Waving
- HAIR 106 Basic Hair Colouring
- HAIR 107 Hairshaping Mechanics
- HAIR 108 Specialized Hair Colouring and Lightening
- HAIR 109 Wigs and Hair Pieces
- HAIR 110 Hairstyling Artistry
- HAIR 111 Hairshaping Artistry
- HAIR 112 Chemical Waving Artistry
- HAIR 113 Men's Hairshaping
- NAIL 100 Introduction to Manicures and Pedicures
- NAST 103 Introduction to Indigenous Studies
- PRAC 200 Customer Service Practicum 1
- PRAC 201 Customer Service Practicum 2
- PRAC 202 Customer Service Practicum 3
- PRAC 203 Customer Service Practicum 4
- PRAC 204 Customer Service Practicum 5
- PRAC 205 Customer Service Practicum 6
- PRAC 215 Salon Reception and Retail Practicum
- SANT 108 Sanitation, Safety and Hygiene for Hairstylists
- SEM 100 Beauty Culture Seminar
- WORK 104 Work Placement Practicum

Occupational Health and Safety Certificate

Location
- Online
- Saskatoon

Start date
September (on campus); September, January, April (online)

Duration
School of Human Services and Community Safety
SASK POLYTECH Programs

- 39 weeks

Admission requirements
- Grade 12
- English Language Requirement

Program overview
Employers across the country, from natural resource companies to hospitals and schools, to manufacturers and office-based businesses, to retailers - all must conform to occupational health and safety legislation. As legislation and standards become multifaceted, demand for qualified Occupational Health and Safety professionals grows.

This program is a great fit if you're looking to enter the Occupational Health and Safety profession, are already working in occupational health and safety and want to expand your career opportunities, considering or preparing to write the Canadian Registered Safety Professional (CRSP) exam or Canadian Registered Safety Technician (CRST) exam or are looking to expand your knowledge.

Explore the career possibilities of Saskatchewan Polytechnic's Occupational Health and Safety certificate program. Our graduates work in a wide variety of industries, advising employers on occupational health and safety issues.

The program provides knowledge relevant to all workplaces in:
- auditing safety management
- contractor safety management
- disability management
- emergency management
- ergonomics
- law and ethics
- incident investigation
- industrial hygiene
- risk management
- safety management systems

The program is offered on campus in Saskatoon (on campus courses are listed below in the Courses section), and online.

The Occupational Health and Safety certificate program consists of:
- 14 theory-based courses
- 3 "Train the Trainer" electives (students are required to complete one of three)
- an 80-hour two-week practicum

The practicum provides a hands-on look at the day-to-day operations of a workplace, its safety management system and the role of Occupational Health and Safety professionals.

For more information, see Frequently Asked Questions.

Why Saskatchewan Polytechnic?

The Board of Canadian Registered Safety Professionals (BCRSP) recognizes Saskatchewan Polytechnic Occupational Health and Safety Certificate as meeting the formal education requirements for certification as a Canadian Registered Safety Professional (CRSP), or the Pathway C education requirements for certification as a Canadian Registered Safety Technician (CRST).

Flexible Learning Options

Saskatchewan Polytechnic's Occupational Health and Safety certificate program is offered on campus in Saskatoon, Saskatchewan, and through distance education for students across Canada.

For current information regarding Prior Learning Assessment Recognition (PLAR) options, contact the program head, Nolan Horbach, at this time.

Career Opportunities

Occupational Health and Safety professionals provide injury and disease prevention expertise in a wide variety of roles and workplaces. You could be part of a multidisciplinary team working on environmental or wellness initiatives, disability management, regulatory compliance and more.

Possible career opportunities include working with the federal, provincial or municipal government, in health care or educational institutions, with oil and gas companies, manufacturers, transportation firms, utilities, trades, construction and safety associations.

For more information, contact Student Employment Services at Sask Polytech.

Transfer credit

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Courses
School of Human Services and Community Safety  
SASK POLYTECH Programs

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<td>SFTY 173</td>
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<tr>
<td>Fundamentals of Industrial Hygiene 1</td>
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<td>Professional Education and Career Planning</td>
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<td>Risk Management</td>
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<td>Auditing Safety Management</td>
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<td>Emergency Management</td>
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<td>Contractor Safety Systems</td>
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<td>Transportation of Dangerous Goods (TDG)</td>
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<td>Train the Trainer</td>
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<td>Workplace Hazardous Information System (WHMIS) Train the Trainer</td>
</tr>
</tbody>
</table>

Note: Students must take one of the following five Electives: HLTH 105, HLTH 106, HLTH 192, TRAN 181, WHMS 184
Check for courses that might be offered through part-time programming.

Security Officer  
Applied Certificate

Location
- Delivery is subject to needs assessment.

Start date
Delivery is subject to needs assessment. For more information, contact:
- Kevin Krawec at 306-765-1737 or kevin.krawec@saskpolytech.ca
- Terry Fleury at 306-765-1733 or terrance.fleury@saskpolytech.ca

Duration
- 12 weeks

Admission requirements
- Grade 10
- English Language Requirement

Note:
- Accepted applicants are required to provide evidence of a Criminal Record Check for access to law enforcement agencies for tours and prior to entering the work experience component of the program. At the discretion of the community agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check. The cost of the Criminal Record Check is your responsibility. Program applicants should be aware that, for the purpose of the Criminal Record Check, they must request this from the police service in their home community, whether it is from a municipal/city police service or from the RCMP detachment that services their home area.

- If you have a criminal record for which a pardon has not been granted, or a matter that is currently before the courts, you may be unable to complete the program.

Program overview
Security officers are in high demand—at mine sites, industrial facilities, entertainment venues and community events. Saskatchewan Polytechnic’s applied certificate program opens the door to careers with a wide variety of employers.

You’ll need good people skills, a sense of integrity and professionalism. You’ll also need to be living a healthy lifestyle and be comfortable working with culturally diverse groups.

Security Officer is a 12-week applied certificate program offered at various on-campus and off-campus locations. The program prepares you to work in various security settings. You’ll get practical knowledge and skill development in:
- control tactics and crime prevention techniques
- interpersonal communication and conflict resolution
- legislation for security officers
- mental health first aid
- personal wellness and professionalism
- reporting procedures
- security procedures and protocols

Boots-on-the-Ground Experience
Being a security officer means being out in the world. Your program gives you practical, boots-on-the-ground experience in a community setting. You’ll practice communication and problem-solving skills, and perform the type of routine tasks assigned to security officers.

Preparing You for Licensing

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020  115
In Saskatchewan (and most other provinces), security officers must be licensed by the provincial Ministry of Justice. Our program prepares you to write the exam and earn your security guard certificate.

Career Opportunities

Graduates are working as security officers across the province—at remote or rural mine and mill sites, at industrial plants, at health care facilities, in the gaming industry and more.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit

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Courses

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<th>Course</th>
<th>Title</th>
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<td>CORR 100</td>
<td>Managing Clients in Law Enforcement Settings</td>
</tr>
<tr>
<td>EMPS 107</td>
<td>Workplace Wellness</td>
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<tr>
<td>JOBR 100</td>
<td>Job Preparation</td>
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<tr>
<td>LAW 164</td>
<td>Reporting Procedures for Security Officers</td>
</tr>
<tr>
<td>SECG 100</td>
<td>Crime Prevention and Technology</td>
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<tr>
<td>SECG 101</td>
<td>Legislation and Procedures for Security Officers</td>
</tr>
<tr>
<td>SFTY 157</td>
<td>Control Tactics</td>
</tr>
<tr>
<td>WORK 155</td>
<td>Work Experience</td>
</tr>
</tbody>
</table>

Victim Services Coordination

Applied Certificate

Location

- Online

Start date

- Varies; View upcoming course availability

For more information, contact:

- Kevin Krawec at 306-765-1737 or kevin.krawec@saskpolytech.ca
- Terry Fleury at 306-765-1733 or terrance.fleury@saskpolytech.ca

Duration

- Program is online.

Admission requirements

- Grade 12

Note: You do not apply or have admission requirements assessed for this program. You take courses through Continuing Education. Once you have successfully completed all the courses in the program, simply apply to graduate.

Program overview

If you’re the kind of person who believes in standing up for others, consider a career in victim services. It is a high-demand area—and Saskatchewan Polytechnic’s Victim Services Coordination program will open the door to jobs with police, corrections or community-based agencies.

Victim services coordinators provide advocacy, information, assistance and referrals to victims of crime or traumatic events. You’ll be working with diverse groups of people and handling emotionally-charged situations, so good communication skills are important. You also need to work from a place of strength, so you must be living a healthy lifestyle.

Learn Online

You can take the courses for this applied certificate program through Flexible Learning. Develop your skills while you continue to work.

Victim Services Coordination is an applied certificate program which gives you practical, applicable knowledge and skills in:

- case management
- client services strategies
- community partnerships
- criminal justice system
- personal wellness and self-care
- response to traumatic events
- volunteer coordination

Participate in Agency Visits

Participate in visits to community agencies during your program. It's a great way to see first-hand what kind of victim programs and services are available in the community. You can also talk to your instructors or the program head about possible training opportunities in the community.
School of Human Services and Community Safety
SASK POLYTECH Programs

Career Opportunities
When you graduate, you’ll be prepared to work as a victim services coordinator, assistant coordinator, domestic violence caseworker or Aboriginal resource officer. Look for work with police services, corrections services or community-based programs for victims of domestic violence and sexual abuse.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit
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Courses

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<td>Strategies for Dealing with Difficult Clients</td>
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<td>COM 110</td>
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<td>CORR 100</td>
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<td>CORR 167</td>
<td>Criminal Justice System</td>
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<td>Interpersonal Violence Strategies</td>
</tr>
<tr>
<td>WORK 154</td>
<td>Work Experience</td>
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</table>

Youth Care Worker Certificate

Location
- Saskatoon

Start date
- September (full-time Saskatoon Campus delivery)

Duration
- 35 weeks

Admission requirements
- Grade 12
- English Language Requirement

Note
- Admitted students will be required to provide evidence of a Criminal Record Check and a Vulnerable Sector Search prior to entering required coursework and practicum with children, youth and adults. At the discretion of the agency, a student may be declined access to a practicum placement based on the contents of the Criminal Record Check, personal interview and/or medical assessment. A student must complete the practicum placements to graduate from the program. The cost of the Criminal Record Check and Vulnerable Sector Search is the student's responsibility.

Program overview

Does a career of working one-on-one with youth and families interest you? Check out the Youth Care Worker program at Saskatchewan Polytechnic. You'll find two options: the one-year certificate or the two-year diploma. Whichever you choose, you'll need a steady personality, strong listening skills, compassion and respect for others.

Graduates of the one-year certificate program are qualified for jobs as youth or family service workers in educational, residential, social services or community-based agencies.

The one-year Youth Care Worker certificate program is offered full time at Saskatchewan Polytechnic Saskatoon campus and part time (some day and evening courses) through Continuing Education, Saskatchewan Polytechnic Regina Campus and Prince Albert Campus, as well as through distance education. Qualified instructors with experience in the field will help you develop the skills you need to build therapeutic relationships with children, youth and families. Your studies will focus on:

- Indigenous awareness;
- addictions and the criminal justice system;
- behavioural intervention strategies and therapeutic activities;
- communication, employability and problem-solving skills;
- crisis prevention/self-protection strategies;
- health & wellness, human growth and development; and
- planning and implementing activities.

Practical, Real-World Learning - The program combines classroom theory with practical learning. You’ll learn from guest speakers and participate in experiential activities. Two work-based practicums give you an opportunity to work directly with children and youth at risk on a day-to-day basis.
You'll apply core concepts learned in class, develop your skills and engage in the design and delivery of programs.

Career Opportunities

When you graduate, look for positions as a youth worker, family support worker, group home staff, community outreach worker or classroom assistant. There are job opportunities in community-based child and youth programs, school-based programs, residential treatment centres, recreation programs, home-based care, child and youth advocacy, and community development.

For more information, contact the Student Employment Services at a campus nearest you.

Transfer credit

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Courses

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<td>EMP 180</td>
<td>Employability Skills</td>
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<td>HLTH 183</td>
<td>Health Promotion in Youth Care</td>
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<td>MGMT 193</td>
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<tr>
<td>ORTN 385</td>
<td>Orientation</td>
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<tr>
<td>SEM 185</td>
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<tr>
<td>SFTY 184</td>
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<tr>
<td>SOCI 184</td>
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<td>YCW 187</td>
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<td>YCW 189</td>
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<td>YCW 282</td>
<td>Family Systems</td>
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**Semester 2**

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**Semester 3**

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**Semester 4**

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<tr>
<td>PRAC 385</td>
<td>Practicum 2</td>
</tr>
</tbody>
</table>

Note: Students must be admitted to the program before taking the practicums.

Youth Care Worker Diploma

**Location**

- Online

**Start date**

Varies by course

**Duration**

- 35 weeks

**Admission requirements**

- Youth Care Worker Certificate
- English Language Requirement

**Note**

- A security clearance, personal interview and/or a medical may be required for practicum or observation visits.
- Admitted students are required to provide evidence of a Criminal Record Check and Vulnerable Sector Search prior to entering required coursework and practicum with children, youth and adults. At the discretion of the agency, a student may be declined access to a practicum placement based on the contents of the Criminal Record Check, personal interview and/or medical assessment. A student must complete the practicum placements to graduate from the program. The cost of the Criminal Record Check and Vulnerable Sector Search is the student's responsibility.
- Proof of current Standard First Aid and CPR 'C' or equivalent may be required prior to entry into a practicum.

**Program overview**

The Youth Care Worker Diploma program is suspended at the Saskatoon Campus only. Current and new students have the following options to take the program:

- Visit Flexible Learning for course information and online registration
- Register to PLAR (Prior Learning Assessment and Recognition); get credit for what you know, by contacting the student advisor Marilyn Philipchuk at 306-659-4903 or marilyn.philipchuk@saskpolytech.ca

Does a career of working one-on-one with young people interest you? Check out the Youth Care Worker program at Saskatchewan Polytechnic. You’ll find two options: the one-year certificate or the
two-year diploma. Whichever you choose, you’ll need a steady personality, strong listening skills, compassion and respect for others.

Graduates of the two-year diploma program are qualified for jobs as family support workers, group home staff, program coordinators or community outreach workers in a variety of educational, residential, social services or community-based agencies.

The two-year Youth Care Worker diploma program is offered through distance education. Qualified instructors will help you build on knowledge and skills developed in the Youth Care Worker certificate program. You’ll learn more about:

- abnormal psychology
- agency administration and community development
- conflict resolution and small group facilitation
- cultural diversity and family systems
- individual assessment and development of case plans
- sexual victimization
- therapeutic intervention strategies and suicide prevention

Practical, Real-World Learning - You’ll participate in two extended work-based practicums. You’ll get hands-on experience implementing individual client programs, facilitating established agency programs, carrying out basic administrative functions and managing client education sessions. It’s an opportunity to build your professional skills while enhancing your own personal growth.

Get a Degree - Use your Youth Care Worker diploma to transfer into third year of the Bachelor of Applied Arts in Justice Studies at Lethbridge College in Alberta.

Career Opportunities

As a graduate of the diploma program, you could work as a family support worker, group home staff, program coordinator or community outreach worker in a wide range of human service agencies. There are job opportunities in a wide range of settings—community-based child and youth programs, parent education and training, family support, school-based programs, residential treatment, recreation programs, therapeutic foster homes, child and youth advocacy, justice programs, AIDS education and support, life skills training and community development.

For more information, contact the Student Employment Services at a campus nearest you.

Transfer Credit

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Courses

**Semester 1**

- HUMR 281 Group Facilitation
- PSYC 188 Psychology A
- SEM 105 Youth Care Worker Diploma Integration Seminar 1
- YCW 281 Youth Care Practices 2
- YCW 285 Conflict Resolution

**Semester 2**

- PRAC 398 Practicum 1

**Semester 3**

- ADMN 286 Administration
- CLTR 180 Culture and Diversity
- COUN 180 Suicide Intervention
- PSYC 189 Psychology B
- SEM 200 Youth Care Worker Diploma Integration Seminar 2
- SPSY 184 Youth Criminal Justice
- SPSY 290 Abnormal Psychology
- YCW 283 Sexual Victimization

**Semester 4**

- PRAC 399 Practicum 2
School of Information and Communications Technology
SASK POLYTECH Programs

Business Information Systems
Diploma

Location
- Moose Jaw
- Regina

Start date
- September

Duration
- 64 weeks:
  - There is a mandatory six-month paid Co-operative Education work term between Semesters 2 and 3. Semesters and co-op work term time patterns are listed in Courses below.

Admission requirements
- Grade 12 with any 30-level mathematics course or with ICTC FIT (Information and Communication Technology Council Focus on IT) certificate
- English Language Requirement

Program overview
Information technology, business software, mobile platforms—information systems are reinventing the way we do business. Computer-savvy people with programming and development skills are in demand in the business world. When your skill set includes training in business solution development, you’re a hot commodity.

Business Information Systems (BIS) is a two-year diploma program offered full-time at Saskatchewan Polytechnic, Moose Jaw Campus. It includes four academic semesters and a six-month paid co-operative education work term.

The Business Information Systems program starts with a solid foundation in business basics with a focus on information technology functions and learning how to use them to develop meaningful business solutions. This includes training in:

- Software development languages (Visual Studio.NET, Java, COBOL);
- Computer hardware, networking and operating systems (Windows, Unix and Linux);
- Data gathering, modeling and database management systems (Oracle, SQL Server 2000);
- Retrieval techniques of databases and programming languages (SQL, PLSQL, ADO.NET, JDBC); and
- Target platforms, including Windows application development, networked software development, web application development (XHTML, JavaScript, ASP, Java).

You’ll use cutting edge technology in servers, programming and mobile apps. You’ll have opportunities to develop or enhance actual production applications, and build hands-on skills in systems analysis, design methodologies and project management.

Diploma to Degree
Graduates can apply to transfer into degree programs at the University of Regina's Paul J. Hill School of Business, the University of Regina's Computer Science department, the University of Lethbridge and Athabasca University.

Career Opportunities
You’re job-ready at graduation. You could work as a software developer, systems analyst, programmer analyst, web/mobile app developer or help desk support. As you gain experience, explore opportunities in IT management or build specialized skills in database administration, advanced web development, project and network management. You could also build a name for yourself as a private consultant or independent contractor.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

<table>
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<tr>
<th>Year 1 - Semester 1</th>
<th>Year 1 - Semester 2</th>
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<tbody>
<tr>
<td>ACCT 122</td>
<td>ADMN 220</td>
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<tr>
<td>Introductory Financial Accounting 1</td>
<td>Organizational Behaviour</td>
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<tr>
<td>BCOM 120</td>
<td>COMP 215</td>
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<tr>
<td>Business Communications 1</td>
<td>Internet Application Development 1</td>
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<tr>
<td>COMP 122</td>
<td>COMP 233</td>
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<tr>
<td>Introduction to Programming for Information Systems</td>
<td>Object Oriented Programming Concepts</td>
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<tr>
<td>COMP 123</td>
<td>COMP 234</td>
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<tr>
<td>Introduction to Business Computing</td>
<td>Database</td>
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</table>
COMP 249 Information Security, Privacy and Ethics
COMP 254 Computer Architecture and Data Communications
JOB 120 Job Readiness

**Co-operative Work Term**
COOP 150 Co-operative Education Work Term

**Year 2 - Semester 3**
COMP 214 Project Management
COMP 235 Internet Application Development 2
COMP 236 Operating Systems and Environment Configuration
COMP 237 Systems Analysis and Requirements Management
COMP 258 Object Oriented Software Development
COMP 259 Mobile Application Development 1

**Year 2 - Semester 4**
ACCT 225 Managerial Accounting
B.COM 121 Business Communications 2
COMP 253 Systems Project
COMP 262 Mobile Application Development 2
HR 236 Organizational Change

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**Computer Networking Technician Certificate**

**Location**
- Regina

**Start date**
- September

**Duration**
- 33 weeks

**Admission requirements**
- Effective for September 2018: Grade 12 with Workplace and Apprenticeship Math 30 or Foundations of Math 20 or Pre-Calculus 20*
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:
- Math A30

**Program overview**

Computer networking technicians are called “network mechanics” because of their ability to solve problems in all kinds of network environments. Since just about every business depends on computer networks, computer networking technicians can find job opportunities in every sector. Your job might involve IT infrastructure support and service, information systems, network or systems administration.

It’s a career that calls for good analytical and organizational skills. Strong communication skills are also important, because you’ll be the go-to person when people need help resolving network issues.

Computer Networking Technician is an intensive certificate program that will help you launch a career in less than a year. The program is available full time at Saskatchewan Polytechnic Regina campus. You’ll learn the fundamentals of information technology (IT) with an emphasis on a hands-on approach to installing, maintaining, troubleshooting and repairing computer networking systems and equipment.

Over nine months, you’ll study IT specialties, including:
- desktop support
- server infrastructure
- network infrastructure
- Linux
- VoIP
- security

Equipment is provided for onsite lab learning, including Cisco routers and switches, VoIP phones, desktop PCs and small business servers. You’ll have the opportunity to build complex networked computer systems to further your knowledge of working systems.

Designed with Industry Input

Leading industry representatives volunteer their time and input on our program advisory committee to ensure that your training is in tune with evolving trends and demands in the workplace.

Cisco Regional Academy

Saskatchewan Polytechnic is the Cisco Regional Academy for Saskatchewan. The big advantage for you is that most of your courses are designed around industry-recognized certifications. Saskatchewan Polytechnic’s Computer Networking Technician program will prepare you to:

- write the exam for Cisco Certified Network Associate (CCNA) designation; and
- write other industry-recognized exams for Cisco, CompTIA and Microsoft certifications.

Personal study is recommended before you write any industry certification exam.
Career Opportunities

Computer networking technicians work in computer-related support positions in just about every sector. Graduates are working in network administration, computer programming, hardware, applications and systems analysis and design. You might start your career as an IT analyst, help desk analyst, system support specialist, systems administrator, network support or network administrator.

Transfer credit

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Admission requirements

- Grade 12
- Minimum 60% in Foundations of Math 30 or Pre-Calculus 30*
- Minimum 70% in one of the following sciences: Physics 30, Chemistry 30 or Computer Science 30
- Minimum overall average of 65%
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:
- Minimum of 70% in Math B30

Program overview

Computer systems technologists solve computer-related issues for businesses, government agencies, utilities, law enforcement agencies, health services providers, educational institutions and more. It’s a career that demands a unique blend of skills—computer literacy, technical know-how and communications savvy—but also lets you specialize in areas that interest you the most, including programming, software design, mobile application programming, data communications and web design.

The two-year Computer Systems Technology diploma is available full time at Saskatchewan Polytechnic Saskatoon campus, with a number of courses also available through distance and/or continuing education. Comprehensive technical training gives you a solid foundation of theory and hands-on lab practice in:

- designing, installing and managing local area networks
- developing computer programs in various programming languages
- developing interactive web pages with multimedia components
- developing proficiency in several common computer application packages
- installing and configuring computer hardware and software
- performing systems analysis and design
- programming apps for mobile devices (smart phones, tablets, etc.)
- providing end-user technical support services
- troubleshooting and repairing hardware problems

Courses

**Semester 1**

- CNET 101  
  CISCO Network Associate 1
- CNET 102  
  CISCO Network Associate 2
- CNET 106  
  A+ Cisco IT Essentials 1
- CNET 111  
  Programming with Python
- CSRV 100  
  Microsoft Windows Server 1

**Semester 2**

- CNET 103  
  CISCO Network Associate 3
- CNET 104  
  CISCO Network Associate 4
- CNET 108  
  IP Telephony Call Manager Express
- COAP 104  
  CCNA Cybersecurity Operations
- COOS 101  
  LINUX+
- CSRV 101  
  Microsoft Windows Server 2
- CSRV 102  
  Microsoft Windows Server 3
- TCOM 105  
  Communications for Technicians

Computer Systems Technology Diploma

**Location**

- Regina
- Saskatoon

**Start date**

- August

**Duration**

- 74 weeks:

Register online at saskpolytech.ca or call 1-866-467-4278  |  Sask Polytech Calendar 2019-2020  |  122
You'll also learn business principles, project management and communication skills—attributes potential employers look for when hiring for IT personnel.

### Diploma to Degree

Transfer agreements with the University of Saskatchewan, University of Regina and University of Lethbridge let you ladder into a computer science degree with two more years of study. It's a great way to expand your career horizons, while leaving the door open to earn a living with your diploma.

### Career Opportunities

Graduates are prepared for a wide variety of jobs: computer programmer, software designer/developer, mobile app programming, network analyst, webmaster, web designer and systems administrator. You also have a broad choice of work environments in the public and private sectors. You could work in the IT department of a large organization or be a one-person IT department for a small business. You could join a company that provides computer sales, installation and support for other businesses. Or you could set up your own IT business and work directly with clients.

### Transfer credit

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### Courses

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<tr>
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<tbody>
<tr>
<td>ADMN 220</td>
<td>Organizational Behaviour</td>
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<tr>
<td>CNET 184</td>
<td>Data Communications and Networking 1</td>
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<td>COAP 173</td>
<td>Data and Document Management</td>
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<td>COOS 181</td>
<td>Operating Systems</td>
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<td>COSC 180</td>
<td>Introduction to Programming</td>
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<td>CWEB 180</td>
<td>Web Site Development</td>
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<td>TCOM 102</td>
<td>Workplace Communication</td>
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**Year 1 - Semester 2**

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<tr>
<td>CDBM 190</td>
<td>Introduction to Database Management</td>
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<tr>
<td>COHS 190</td>
<td>Hardware</td>
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<td>COOS 190</td>
<td>Systems Administration 1</td>
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<td>COSA 190</td>
<td>Systems Analysis and Design</td>
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<td>COSC 190</td>
<td>Intermediate Programming</td>
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<td>CWEB 190</td>
<td>Internet Programming/Web Applications 1</td>
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<td>TCOM 190</td>
<td>Technical Communications</td>
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**Year 1 - Semester 3**

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<td>Systems Project</td>
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<td>COSC 195</td>
<td>Mobile Application Programming</td>
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<td>CPMG 195</td>
<td>Systems Project Management</td>
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<td>CWEB 195</td>
<td>Website Interface Design</td>
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**Year 2 - Semester 4**

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<th>Course</th>
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<td>CDBM 280</td>
<td>Database Management Systems</td>
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<td>COHS 280</td>
<td>Enterprise Systems Support</td>
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<tr>
<td>COSA 280</td>
<td>IT Development Project 1</td>
</tr>
<tr>
<td>COSC 286</td>
<td>Advanced Programming 1</td>
</tr>
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<td>CPMG 280</td>
<td>IT Development Project Management 1</td>
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<td>CSEC 280</td>
<td>Security 1</td>
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<tr>
<td>CWEB 280</td>
<td>Internet Programming/Web Applications 2</td>
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<tr>
<td>MATH 282</td>
<td>Mathematics of Computation</td>
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<td>SEM 283</td>
<td>Seminar</td>
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**Year 2 - Semester 5**

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<td>COOS 291</td>
<td>Advanced Operating Systems</td>
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<td>COOS 293</td>
<td>Systems Administration 2</td>
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<tr>
<td>COOS 294</td>
<td>Enterprise Server Administration</td>
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<tr>
<td>COSA 290</td>
<td>IT Development Project 2</td>
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<tr>
<td>COSC 292</td>
<td>Advanced Programming 2</td>
</tr>
<tr>
<td>COSC 295</td>
<td>Advanced Mobile Application Programming</td>
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<td>CPMG 290</td>
<td>IT Development Project Management 2</td>
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<td>TCOM 291</td>
<td>Career Path Search</td>
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**Year 2 - Semester 6**

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<tbody>
<tr>
<td>COET 295</td>
<td>Emerging Technologies</td>
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<td>COOS 295</td>
<td>Systems Administration 3</td>
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<tr>
<td>CSEC 295</td>
<td>Security Topics</td>
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</tbody>
</table>

### Cyber Security

**Post-Graduate Certificate**

### Location

- Saskatoon

### Start date

To be determined

### Duration

- 40 weeks

### Admission requirements

- A conferred Bachelor's degree in the area of Information and Communication Technology from a recognized post-secondary institution
- English Language Requirement

### Note:

Register online at saskpolytech.ca or call 1-866-467-4278
Applicants should have previous networking training. Applicants might need a Criminal Record Check and be bondable to meet future employer requirements.

Program overview

The Cyber Security post-graduate certificate will prepare students for the challenges of identifying network and computer system vulnerabilities, conducting ethical hacks to determine system risk and designing organizational cyber security plans. The program content is based on the expectation that students will have developed problem-solving skills and basic research skills in their undergraduate information and communication technology degrees, and that the Cyber Security post-graduate certificate program will enhance their existing knowledge and skills. Cyber security is everyone’s business, and developing current practical knowledge is important in this digital growth industry.

Career Opportunities

Through your studies, you will develop knowledge and skills in:

- cyber security operations
- penetration testing
- information security investigation and forensics
- web security
- security consultation
- security analysis
- security administration

Transfer credit

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Digital Graphic Design

Advanced Certificate

Location
- Online

Start date
- September (full-time)

Duration
- 30 weeks

Admission requirements

- New Media Communications certificate - (Prince Albert Campus or Regina Campus)
- English Language Requirement

Program overview

Note: This program is being replaced with our new Interactive Design and Technology program, but it is still available to graduates of the New Media Communications certificate program. It will be suspended effective July 1, 2020. If you need to complete one or more individual courses, contact Kevin Mahlberg at kevin.mahlberg@saskpolytech.ca or 306-659-4691.

Digital Graphic Design is an advanced certificate program. It provides the digital graphic design skills needed to create interesting and effective graphic solutions for websites, banner ads, CD-ROMs and interactive media (such as Flash).

Building on the skills you developed in the New Media Communications certificate program (at the campus in Prince Albert or Regina), you will learn advanced skills in raster and vector graphics. You will study major artistic periods throughout history - learning their defining characteristics and creating a wide variety of works modelled after their style. You will also create a final portfolio that contains a selection of your best work.

Availability

- Part-time studies - the courses will be offered regularly throughout the academic year
School of Information and Communications Technology
SASK POLYTECH Programs

- Full-time studies - it will be possible to complete all the courses in an academic year

Individuals who plan to take at least one more of the advanced certificates in this area (shown below), in addition to Digital Graphic Design, may wish to consider applying directly to the New Media Communications diploma program.

Dynamic Web Development Interactive Media Production

Career Opportunities

Graduates are prepared for employment in graphics, Internet and advertising related occupations.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

Courses

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<td>Art History</td>
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<td>DSGN 203</td>
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<td>DSGN 204</td>
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<tr>
<td>DSGN 205</td>
<td>Contemporary Graphic Design</td>
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<tr>
<td>EMPS 201</td>
<td>Portfolio Design and Presentation</td>
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<tr>
<td>GRPH 200</td>
<td>Advanced Raster Skills</td>
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<td>GRPH 201</td>
<td>Advanced Vector Skills</td>
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<td>GRPH 202</td>
<td>Electronic Publishing</td>
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<tr>
<td>GRPH 203</td>
<td>Introduction to Colour Management</td>
</tr>
<tr>
<td>MKTG 202</td>
<td>Self-Promotion and Marketing</td>
</tr>
</tbody>
</table>

Note: Courses are delivered online. A combination of Internet-based resources, videos, class discussions, text-based chat sessions, and peer critiques may be used. Your instructor will provide guidance, help, and timely feedback.

Dynamic Web Development Advanced Certificate

Location
- Online

Start date
- September (full-time)

Duration
- 30 weeks

Admission requirements
- New Media Communications certificate - (Prince Albert Campus or Regina Campus) with electives MULT 127 (Intermediate Flash) and MULT 128 (Advanced HTML)
- English Language Requirement

Note
Students who successfully complete the Web Site Design and Development Program (applied certificate) will be considered for entry into the Dynamic Web Development Program through special admissions. For details on admission to this program with the completion of the Web Site Design and Development Program, please contact the program head.

Program overview

Note: This program is being replaced with our new Interactive Design and Technology program, but is still available to graduates of the New Media Communications certificate program. It will be suspended effective July 1, 2020. If you need to complete one or more individual courses, contact Kevin Mahlberg at kevin.mahlberg@saskpolytech.ca or 306-659-4691.

Dynamic Web Development is an advanced certificate program. It provides the skill development needed to be proficient in developing sophisticated and interactive Web content.

Building on the skills you developed in the New Media Communications certificate program (in Prince Albert or Regina), you will develop competence in building and implementing dynamically driven websites, online databases, electronic catalogues and e-commerce solutions.

Your studies will include:
- databases (Access and SQL)
- operating systems (Windows and Linux)
- server side scripting (PHP)
- data driven Web applications
- data driven Flash applications
- e-commerce
- security

Availability
- Part-time studies - the courses are offered regularly throughout the academic year

Register online at saskpolytech.ca or call 1-866-467-4278
Sask Polytech Calendar 2019-2020
• Full-time studies - it is possible to complete all the courses in an academic year

Individuals who plan to take at least one more of the advanced certificates in this area (shown below), in addition to Dynamic Web Development, may wish to consider applying directly to the New Media Communications diploma program.

Digital Graphic Design  Interactive Media Production

**Career Opportunities**

Graduates are prepared for employment as Web developers. They will have a clear understanding of the recent advances in technology and know how to design and develop dynamic, interactive content on the Internet, database driven websites and e-commerce solutions.

**Transfer credit**

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<tbody>
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<td>COMP 176</td>
<td>Introduction to Microsoft Access 1</td>
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<tr>
<td>COMP 200</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>COMP 201</td>
<td>Introduction to Database Design</td>
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<tr>
<td>COMP 202</td>
<td>Structured Query Language SQL</td>
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<td>COMP 204</td>
<td>Server Side Scripting 1</td>
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<tr>
<td>COMP 205</td>
<td>Server Side Scripting 2</td>
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<tr>
<td>COMP 206</td>
<td>E-Commerce</td>
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<tr>
<td>COMP 216</td>
<td>AJAX</td>
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<td>CSEC 200</td>
<td>Security</td>
</tr>
<tr>
<td>MULT 211</td>
<td>Dynamic Flash Applications</td>
</tr>
<tr>
<td>PROJ 201</td>
<td>Dynamic Web Project</td>
</tr>
</tbody>
</table>

Note: Courses are delivered online. A combination of Internet-based resources, videos, class discussions, text-based chat sessions, and peer critiques may be used. Your instructor will provide guidance, help, and timely feedback.

**Graphic Communications Diploma**

**Location**

• Regina

**Start date**

• September

**Duration**

• 68 weeks:
  • Year 1 - 32 weeks; Year 2 - 36 weeks

**Admission requirements**

• Grade 12
• English Language Requirement

**Program overview**

Innovative. Idea-driven. Important. Graphic communications revolutionized society with the printing press. Now it’s leading a new revolution into the digital age. It’s an industry of team players who combine artistic, technical, and entrepreneurial talents to get the job done. It could be the career for you.

Saskatchewan Polytechnic’s Graphic Communications diploma program will challenge you both creatively and technically. Our training ensures you meet national skills standards set out by the Canadian Printing Industries Sector Council. You’ll graduate with the kind of practical, hands-on skills you need to succeed—in both traditional and digital printing environments, as well as publishing, advertising, design, and communications.

Graphics Communications is a two-year diploma program offered full-time at Saskatchewan Polytechnic Regina campus. Come here to develop practical, hands-on skills in electronic file management, industry-standard software applications, and print management, production, and administration. This includes training in:

• colour copier operation
• colour theory and colour management
• design and typography
• digital photography
• hydraulic cutter operation and maintenance
• image editing and page layout
• industry-standard software and hardware systems
• logos, graphs, vector graphics, PDF creation
• mixing inks
• preflighting, proofing and output methods
• screen printing
• sheetfed offset press operation and maintenance
• wide-format printing
• vinyl decal/sticker creation

Learn by Doing
You'll learn about leading software applications by using them in your classes and labs.

You'll learn about printing by operating Saskatchewan Polytechnic's in-house pre-press equipment, vinyl cutter, screen printing system and offset press.

Ready to Work

At graduation, you'll have developed a professional portfolio, completed a four-week work experience and have experience managing and producing a "live job" from concept through delivery.

Career Opportunities

Graphic Communications graduates are working in many different areas—advertising agencies, graphic design firms, electronic pre-press studios, sign shops, commercial and quick-print shops, newspaper, magazine and book publishers, in-house marketing departments, and government communications departments.

Look for entry level jobs in design, production art, packaging design, signage, image editing, bindery and finishing, digital print operation, print production planning, management, screen printing and press operations, branding and marketing.

For more information, contact the Student Employment Services at a campus nearest you.

Transfer credit

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<td>GRPH 146</td>
<td>Introduction to Printing</td>
<td>GRPH 151</td>
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<td>GRPH 147</td>
<td>Digital Page Layout 1</td>
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<td>GRPH 150</td>
<td>Design 1</td>
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<td>GRPH 152</td>
<td>Digital Illustration 1</td>
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<td>GRPH 153</td>
<td>Image Editing 1</td>
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<td>GRPH 154</td>
<td>Workflow Fundamentals</td>
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<td>Print Media 2</td>
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<td>MATH 165</td>
<td>Mathematics for Printers</td>
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<td>Digital Page Layout 2</td>
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<td>GRPH 149</td>
<td>Digital Page Layout 3</td>
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<td>WORK 300</td>
<td>Work Experience</td>
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</table>

Interactive Design and Technology Diploma

Location

- Regina
- Saskatoon

Start date

September every second year This program has one intake every second year (beginning in 2017)

Duration

- 69 weeks
  - Year 1 - 37 weeks; Year 2 - 32 weeks

Admission requirements

- Grade 12
- English Language Requirement

Note:
School of Information and Communications Technology
SASK POLYTECH Programs

To be successful in the program, you will require basic computer literacy

Program overview

Are you interested in design and website development, interactive media, digital marketing, computer graphics? Do you have a creative mind, good problem-solving skills, enjoy working with computer software and hardware?

With technology literally reinventing the way we do things (think mobile, 3D printing, social media), now is a great time to turn your interest into a career. Saskatchewan Polytechnic offers a two-year Interactive Design and Technology (IDT) diploma program.

The Interactive Design and Technology program is offered full-time at Saskatchewan Polytechnic Regina Campus and Saskatchewan Polytechnic Saskatoon Campus, with some courses available online through distance learning.

In the first year, you'll get an overall foundation in:

- professional practices
- design principles and processes
- web page design and development
- raster and vector graphic creation and editing
- writing for social and interactive media
- photography, audio and video

In the second year, you'll build your skills in:

- management principles, analytics and usability studies
- self-promotion and digital marketing
- interactive authoring
- customizing Content Management Systems (CMS)

You choose one of the following specialties:

Design

You will learn the skills needed to create interesting and effective graphic solutions for websites and interactive media.

- contemporary graphic design styles
- user interface design
- advanced raster and vector graphic skills

Technology

You will develop competence in building and implementing dynamically driven custom websites such as electronic catalogues and e-commerce solutions.

- database design, database management systems (DBMS) and Structured Query Language (SQL)
- server-side scripting, methods, functions
- client-side scripting and asynchronous web applications

At Saskatchewan Polytechnic, You Learn By Doing

You'll spend the majority of class time learning how to use the tools of the trade and applying your creative, problem-solving skills to assignments. You'll build practical skills in several self-directed projects and by participating in either a work experience or client-directed project.

Build Your Portfolio Online

You'll gain practical experience through online portfolio development. When you graduate, you should have your own domain, a professional presence and an online portfolio, showcasing your best work.

Career Opportunities

Interactive media is being integrated in every sector: government and industry, big business and small e-commerce, education, health, sports and entertainment - you name it. Graduates are working in advertising agencies, production companies, website design firms and more.

Advanced training opens more doors. In the second year, you will specialize in either Design, which can lead to a career as a graphic artist, graphic interface designer, new media developer or web developer, or in Technology, can lead to jobs in web and e-commerce as designers, developers and programmers. Interactive media production careers include content developer, interactivity specialist and web developer.

For more information, contact the Student Employment Services at a campus nearest you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td>COMP 102</td>
<td>Computer Foundations</td>
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<td>DSGN 101</td>
<td>Elements and Principles of Design 1</td>
</tr>
<tr>
<td>DSGN 103</td>
<td>Web Site Design Principles</td>
</tr>
</tbody>
</table>

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School of Information and Communications Technology
SASK POLYTECH Programs

DSGN 204  Design Processes and Critical Studies
GRPH 102  Raster Graphics
GRPH 103  Vector Graphics
MULT 120  Web Authoring 1-Basic HTML/CSS
MULT 124  Web Authoring 2-Intermediate HTML/CSS-CMS
PROF 100  Professional Practices 1

**Semester 2**
CRWT 100  Writing for Social and Interactive Media
DGTI 101  Introduction to Audio
GRPH 100  Elements and Principles of Design 2
GRPH 202  Electronic Publishing
MULT 114  Web Authoring 3-Javascript
MULT 122  Introduction to Animation
MULT 128  Web Authoring 4-Responsive Web Development
PHOT 100  Still Imaging

**Semester 3**
DGTI 105  Introduction to Video
MULT 125  Interactive Authoring 1

**Semester 4**
ART 200  Art History
DGTI 201  Media Codecs and Formats
DSGN 203  Typography
MKTG 202  Self-Promotion and Marketing
MKTG 203  Introduction to Digital Marketing
MULT 123  3D Modeling
MULT 204  Interactive Authoring 2
MULT 205  Customizing Content Management Systems
MULT 208  Emerging Interactive Technologies
PROF 200  Professional Practices 2

**Sem 5 (Design Specialty)**
DSGN 202  User Interface Design
DSGN 205  Contemporary Graphic Design
DSGN 206  Methods of Graphic Design
GRPH 200  Advanced Raster Skills
GRPH 201  Advanced Vector Skills
GRPH 203  Introduction to Colour Management
PROJ 202  Interactive Media Project

**Sem 5 (Technology Specialty)**
COMP 176  Introduction to Microsoft Access 1
COMP 201  Introduction to Database Design
COMP 202  Structured Query Language SQL
COMP 204  Server Side Scripting 1
COMP 205  Server Side Scripting 2
COMP 216  AJAX
PROJ 202  Interactive Media Project

**Electives (Must take 1 of 2)**
PROJ 101  Client Directed Project
WORK 106  Work Experience

**Interactive Media Production**
**Advanced Certificate**

**Location**
- Online

**Start date**
- September

**Duration**
- 30 weeks

**Admission requirements**
- New Media Communications certificate - (Prince Albert Campus or Regina Campus)
- English Language Requirement

**Program overview**

*Note: This program is being replaced with our new Interactive Design and Technology program, but it is still available to graduates of the New Media Communications certificate program. It will be suspended effective July 1, 2020. If you need to complete one or more individual courses, contact Kevin Mahlberg at kevin.mahlberg@saskpolytech.ca or 306-659-4691.*

Interactive Media Production is an advanced certificate program. It provides the skills needed to be proficient in developing content using rich media tools.

Building on the skills you developed in the New Media Communications Certificate Program (in Prince Albert and Regina), you will learn how to build sophisticated media in a standalone configuration and integrated with server-side processes.

You will learn how to script in Flash, develop interactive CD-ROMs, author DVDs and develop material using content management systems and electronic learning environments. A research course will provide you with an opportunity to explore emerging technologies (such as wireless delivery to cell phones and PDAs).

**Availability**
- Part-time studies - the courses are offered regularly throughout the academic year
- Full-time studies - it is possible to complete all the courses in an academic year

Individuals who plan to take at least one more of the advanced certificates in this area (shown below), in addition to Interactive Media Production, may wish to consider applying directly to the New Media Communications diploma program.
Digital Graphic Design  Dynamic Web Development

Career Opportunities

Graduates are prepared for employment as interactive media developers who have a clear understanding of the recent advances in technology and know how to design and develop dynamic and interactive content for CD-ROMs, DVDs, electronic learning environments and cutting edge technologies (such as cell phones and PDAs).

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<tr>
<th>Course Code</th>
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<tr>
<td>DGTL 200</td>
<td>Audio Post Production and Effects</td>
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<tr>
<td>DGTL 201</td>
<td>Media Codecs and Formats</td>
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<tr>
<td>DSGN 202</td>
<td>User Interface Design</td>
</tr>
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<td>MULT 202</td>
<td>Motion Graphics</td>
</tr>
<tr>
<td>MULT 203</td>
<td>Introduction to DVD Authoring</td>
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<tr>
<td>MULT 204</td>
<td>Interactive Authoring 2</td>
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<tr>
<td>MULT 205</td>
<td>Customizing Content Management Systems</td>
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<td>MULT 206</td>
<td>Advanced DVD Authoring</td>
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<td>MULT 207</td>
<td>Alternate Delivery Platforms</td>
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<td>MULT 208</td>
<td>Emerging Interactive Technologies</td>
</tr>
<tr>
<td>MULT 209</td>
<td>Introduction to Learning Management Systems</td>
</tr>
<tr>
<td>PROJ 202</td>
<td>Interactive Media Project</td>
</tr>
</tbody>
</table>

Note: Courses are delivered online. A combination of Internet-based resources, videos, class discussions, text-based chat sessions, and peer critiques may be used. Your instructor will provide guidance, help, and timely feedback.

Library and Information Technology Diploma

Location

- Saskatoon

Start date

- August every second year

- This program has one intake every second year (even numbered years only).

Duration

- 72 weeks:
  - Year 1 - 36 weeks; Year 2 - 36 weeks

Admission requirements

- Grade 12 with a minimum 60% average in English Language Arts A30 and English Language Arts B30
- English Language Requirement

Note

- Accepted applicants are required to provide evidence of a Criminal Record Check and Vulnerable Sector Search during the first term of the program. At the discretion of the work experience agency/school, you may be declined access to a work experience based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.

Program overview

Today's library technologist is tech-savvy, socially engaged and passionate about life-long learning. It’s a great career for anyone interested in literacy, learning and innovation.

Library techs are in demand—because libraries have become the go-to place for everything from traditional books to e-books, multimedia and online resources.

Saskatchewan Polytechnic's two-year Library and Information Technology diploma program has been developed in accordance with the Canadian Library Association Guidelines to address ongoing advances in technology and changing library user needs. Offered at our Saskatoon campus, the program prepares you to support librarians in any type of library—or to manage day-to-day operations on your own in a small library.

You'll take a variety of introductory academic courses to familiarize yourself with a wide variety of subjects, from world history to literature. You'll discuss the impact of new technologies, the political and economic factors impacting information sharing, the benefits and risks of digital storage, and more. Through lectures, labs and hands-on projects, you'll develop knowledge and skills in:

- acquisitions, circulation and interlibrary loans
- archives and records management
- computer-based and traditional library management
- database searching and reference research

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- descriptive and subject cataloguing
- programming and public relations
- reader assistance
- website design and social media

Q & A Sessions - Library technologists get asked a lot of questions. Your assignments reflect the kind of requests you might get, and you’ll learn to use a wide range of resources to find answers.

In-Library Practicums - Work experience is an integral part of your learning. You’ll participate in 2 three-week practicums, one in a Saskatoon public library, one in another community library. It’s a chance to apply theory to practice, and class projects to a real working environment.

Career Opportunities

The potential job market for library technologists is bigger and broader than many know. There are career opportunities in municipal public libraries, regional public libraries, northern libraries and the Saskatchewan Provincial Library. There are also jobs in university, polytechnical and regional colleges, public and separate school divisions, health regions, government departments, archives, research centres and private businesses.

You could work on the front line helping library users or behind the scenes in a technical capacity. Although a diploma does not qualify you as a librarian, it does open doors to working in supervisory or managerial roles in library service units or small libraries.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

**Semester 1**

- COMM 291 Interpersonal Communications
- COMP 170 Basic Computer Operation
- ENGL 101 Critical Reading and Writing
- LIB 182 Borrower and Outreach Services
- LIB 192 Introduction to Information Resources
- LIB 196 Introduction to Cataloguing
- LIT 182 Children's Materials and Services
- ORTN 190 Introduction to Library Service
- SOCI 171 Culture and Diversity in Canadian Society
- WORK 194 Introductory Work Experience

**Semester 2**

- CDNS 280 Canadian Government
- COMM 113 Applied Communications
- COMP 171 Introduction to Microsoft Word
- COMP 173 Introduction to Microsoft PowerPoint and Web Publishing
- COMP 174 Introduction to Microsoft Excel 1
- HIST 280 World History
- LIB 191 Readers’ Services
- LIB 194 Introduction to Archives and Records Management
- LIB 197 General Information Resources
- LIB 199 Subject Cataloguing

**Semester 3**

- WORK 285 Work Experience 1

**Semester 4**

- CWEB 200 Website Development
- LIB 289 Digital Technologies
- LIB 290 Cataloguing: Serials and Multimedia Resources
- LIB 291 Information Resources: Social Sciences
- LIT 290 Canadian Literature Survey 1
- MGMT 282 Library Management - Theory and Practice
- NAST 290 Indigenous Studies 1
- PRPL 284 Public Relations and Programming

**Semester 5**

- LIB 193 Current Trends in Libraries
- LIB 282 Storytelling for all Ages
- LIB 292 Acquisitions and Collections Development
- LIB 293 Information Resources: Humanities and Science and Technology
- LIT 183 Young Adults' Materials and Services
- LIT 291 Canadian Literature Survey 2
- NAST 291 Indigenous Studies 2
- PROJ 211 Capstone Project

**Semester 6**

- WORK 286 Work Experience 2

**Library Clerk**

**Applied Certificate**

**Location**

- Online

**Start date**

Courses begin in September and January each year

**Duration**

- 16 weeks (each course)

**Admission requirements**

Register online at saskpolytech.ca or call 1-866-467-4278
School of Information and Communications Technology
SASK POLYTECH Programs

- Grade 12
- English Language Requirement

Program overview

Library Clerk is a 18-credit applied certificate program offered online, and provides entry-level library skills and knowledge training.

Library clerks work directly with library technicians, librarians, and library users. They may be responsible for the circulation of library materials, sorting and shelving library materials, clerical functions, and providing general library information to users.

Learn Online

You can take all of these courses online through flexible learning. Our highly trained instructors have experience working within libraries of all types. You will develop knowledge and skills in:

- Children's materials and services; birth to grade six
- Young adult's materials and services; grades seven to 12
- Programming and public relations
- Reader's advisory
- Information resources

Ladder into a Saskatchewan Polytechnic Diploma

You can transfer all certificate courses into the Saskatchewan Polytechnic Library and Information Technology diploma program.

Career Opportunities

When you complete the applied certificate you will be fully prepared to work as a library clerk within academic, public, school, and special libraries. Typical job titles are library clerk, circulation clerk, programming clerk, and library assistant.

In addition to libraries of all types, potential employers include health regions, government departments, and research centres.

For more information about career opportunities, contact Student Employment Services at a campus nearest you.

Transfer credit

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Courses

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<tr>
<th>LIB 191</th>
<th>Readers’ Services</th>
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<td>LIB 192</td>
<td>Introduction to Information Resources</td>
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<tr>
<td>LIT 182</td>
<td>Children's Materials and Services</td>
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<td>LIT 183</td>
<td>Young Adults' Materials and Services</td>
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<td>ORTN 190</td>
<td>Introduction to Library Service</td>
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<td>PRPL 284</td>
<td>Public Relations and Programming</td>
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Media Production

Diploma

Location

- Saskatoon

Start date

- September

Duration

- 68 to 71 weeks

Admission requirements

- Grade 12 with English Language Arts A30 and English Language Arts B30
- English Language Requirement

Note:

To success in the program, we strongly recommend you have basic computer skills (word processing and spreadsheets)

Program overview

Today's media is all about content—stories, ideas, words, sounds, images, designs. And with more media outlets than ever before, demand for people with abilities to conceive, produce and deliver content is growing. If you'd like to be one of them, Saskatchewan Polytechnic's Media Production program will appeal to you.

Media Production offers cutting-edge training in the “how-to” of content creation. Learn how to bring ideas to life, how to operate production equipment, how to prepare presentations, how to produce media programs.

You’ll graduate with the skills you need to work behind the cameras, in sound, lighting, editing, live streaming, location production and more.

Media Production is a two-year diploma program. The program is offered full-time at Saskatchewan Polytechnic Saskatoon

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SASK POLYTECH Programs

In the first-year of the program, you'll learn the fundamentals of:

- still imaging
- formatting, manipulating and editing graphics
- audio recording and production
- scriptwriting
- electronic publishing
- basic video acquisition and editing
- lighting techniques and design
- presentation software and equipment
- web authoring

In the second-year, you'll build your skills through hands-on training in:

- digital audio and video post-production
- multi-camera video production
- producing, post-production
- project management and scheduling
- live audio production
- portrait and product photography
- effective imagery
- streaming media
- motion graphics

Conceived, Written, Directed & Produced by ... You - In the second year, you'll produce several original productions, including dramatic, corporate and documentary projects. Talk about a great start to your portfolio!

Cutting-edge Media Production takes your in-depth training into audio and video post-production. The program covers advanced production techniques and helps you develop management skills related to media production environments in video acquisition, post-production, sound recording and editing in computer based, digital, and HDTV formats.

Career Opportunities

As a Media Production graduate, you can take your career in many different directions. You could work as a media technician, recording technician, camera operator, video producer, editor, new media specialist, graphic editor, copywriter or producer.

Pursue a career in film and TV production, post-production, broadcasting or digital media. Go the corporate route and get involved in media production for large companies, educational institutions, health organizations and government agencies. Use your experience to build a career as a freelancer or start your own production company.

For more information about career opportunities, contact Student Employment Services at a campus nearest you.

Transfer credit

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Courses

**Year 1 - Semester 1**

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<td>COMP 102</td>
<td>Computer Foundations</td>
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<td>CRWT 101</td>
<td>Introduction to Script Writing</td>
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<td>DSGN 101</td>
<td>Elements and Principles of Design 1</td>
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<td>GRPH 102</td>
<td>Raster Graphics</td>
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<td>GRPH 103</td>
<td>Vector Graphics</td>
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<td>MULT 131</td>
<td>Presentations</td>
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<td>PHOT 100</td>
<td>Still Imaging</td>
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<td>PROF 100</td>
<td>Professional Practices 1</td>
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**Year 1 - Semester 2**

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<td>Introduction to Digital Audio Workstations</td>
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<td>AV 200</td>
<td>Lighting</td>
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<td>DSGN 105</td>
<td>Structuring Screen Space</td>
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<tr>
<td>GRPH 202</td>
<td>Electronic Publishing</td>
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<td>MULT 120</td>
<td>Web Authoring 1-Basic HTML/CSS</td>
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<td>VDEO 101</td>
<td>Electronic Field Production Equipment</td>
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<td>VDEO 102</td>
<td>Videography</td>
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<td>VDEO 103</td>
<td>Introduction to Non-Linear Editing</td>
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**Year 2 - Semester 3**

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<td>Audio Production</td>
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<td>AUDI 202</td>
<td>Audio Processing and Mixing</td>
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<td>CRWT 200</td>
<td>Story Development</td>
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<td>DSGN 201</td>
<td>Sound Design</td>
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<td>PHOT 224</td>
<td>Portrait and Product Photography</td>
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<td>PROJ 200</td>
<td>Production Management</td>
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<td>VDEO 200</td>
<td>Effective Imagery</td>
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<td>VDEO 202</td>
<td>Video Titling and Graphics</td>
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<td>VDEO 203</td>
<td>Post-Production</td>
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**Year 2 - Semester 4**

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<tr>
<td>AUDI 203</td>
<td>Live Audio Production</td>
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<tr>
<td>MULT 124</td>
<td>Web Authoring 2-Intermediate HTML/CSS-CMS</td>
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<td>MULT 201</td>
<td>Video Production Using Still Images</td>
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<td>MULT 202</td>
<td>Motion Graphics</td>
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<td>VIDEO 204</td>
<td>Dramatic Production</td>
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<td>Corporate Video Production</td>
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<td>Documentary Production</td>
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<td>VIDEO 207</td>
<td>Multi-Camera Video Production</td>
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<td>Introduction to Streaming Media</td>
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**Year 2 - Semester 5**

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<td>Portfolio Development</td>
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School of Information and Communications Technology
SASK POLYTECH Programs

New Media Communications
Diploma

Location
- Online

Start date
- Varies:
  - For more information, contact Registration Services.

Duration
- Varies (420 hours per specialization/advanced certificate)

Admission requirements
- New Media Communications Certificate (Prince Albert Campus or Regina Campus)
- English Language Requirement

Program overview

Note: This program is being replaced with our new Interactive Design and Technology program, but it is still available to graduates of the New Media Communications certificate program.

Are you interested in website design, interactive media, digital marketing, animation, computer graphics? Do you have a creative mind, good problem-solving skills, enjoy working with computer software and hardware?

With technology literally re-inventing the way we do things (think mobile, 3D printing, social media), now is a great time to turn your interest into a full-time career. Saskatchewan Polytechnic offers a two-year New Media Communications diploma program with an optional one-year certificate program.

The first-year New Media Communications certificate program is offered full-time at Saskatchewan Polytechnic Prince Albert campus and Saskatchewan Polytechnic Regina campus, with some courses available online through distance learning. It is a generalist program, meaning you’ll get a well-rounded foundation in:

- concept development
- digital audio, photography and video
- graphic creation, editing and interface design
- management principles, analytics and usability studies
- web page design and development
- plus electives in writing, 2D animation, 3D modeling and animation

In the second-year New Media Communications diploma program you’ll pursue specialized training in your choice of two of the following areas:

- Digital Graphic Design builds knowledge and skills in creating graphics solutions (typography, raster/vector graphics, document layout, etc.) for websites, advertising and interactive media. Online.
- Dynamic Web Development builds knowledge and skills in developing sophisticated, secure and interactive web content (e.g., dynamic web apps, e-commerce, online databases). Online.
- Interactive Media Production builds knowledge and skills in developing interactive content for standalone (e.g., kiosks, digital signs) and integrated server-side processes (e.g., interface design, content management systems, mobile platforms). Online.

At Saskatchewan Polytechnic, You Learn By Doing - You’ll spend the majority of class time learning how to use the tools of the trade and applying your creative, problem-solving skills to assignments. You’ll build practical skills in several self-directed projects, and by participating either in a work experience or client-directed project.

State-of-the-Art Software

You’ll build skills by using the latest technology. Whether you’re keen on animation or 3D modelling and printing, website analytics or social media, Saskatchewan Polytechnic lets you learn on industry-standard software and hardware.

Build Your Portfolio Online - You’ll gain practical experience using online portfolio development. When you graduate, you should have your own domain, a professional presence and an online resume showcasing your best work.

Career Opportunities

New media is being integrated in every sector: government and industry, big business and small e-commerce, education and health, sports and entertainment—you name it. New Media Communications graduates are working in advertising agencies, new media production companies, website design firms and more.
Advanced training opens more doors. Digital Graphic Design can lead to a career as a graphic artist, graphic interface designer, new media developer or web developer. Dynamic Web Development can lead to jobs in web and e-commerce as designers, developers and programmers. Interactive Media Production careers include content developer, interactivity specialist and web developer.

For more information, contact the Student Employment Services at a campus nearest you.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

**Dynamic Web Development**
- COMP 176 Introduction to Microsoft Access 1
- COMP 200 Operating Systems
- COMP 201 Introduction to Database Design
- COMP 202 Structured Query Language SQL
- COMP 204 Server Side Scripting 1
- COMP 205 Server Side Scripting 2
- COMP 206 E-Commerce
- COMP 216 AJAX
- CSEC 200 Security
- MULT 211 Dynamic Flash Applications
- PROJ 201 Dynamic Web Project

**Interactive Media Production**
- DGTL 200 Audio Post Production and Effects
- DGTL 201 Media Codecs and Formats
- DSGN 202 User Interface Design
- MULT 202 Motion Graphics
- MULT 203 Introduction to DVD Authoring
- MULT 204 Interactive Authoring 2
- MULT 205 Customizing Content Management Systems
- MULT 206 Advanced DVD Authoring
- MULT 207 Alternate Delivery Platforms
- MULT 208 Emerging Interactive Technologies
- MULT 209 Introduction to Learning Management Systems
- PROJ 202 Interactive Media Project

**Digital Graphic Design**
- ART 200 Art History
- DSGN 203 Typography
- DSGN 204 Design Processes and Critical Studies
- DSGN 205 Contemporary Graphic Design
- EMPS 201 Portfolio Design and Presentation
- GRPH 200 Advanced Raster Skills

**Software Developer**

**Post-Graduate Certificate**

**Location**
- Saskatoon

**Start date**
- September

**Duration**
- 40 weeks

**Admission requirements**
- A conferred bachelor's degree in Science or Applied Science from a recognized post-secondary institution
- English Language Requirement

**Note:**
- Experience using computers to solve problems is recommended

**Program overview**

The Software Developer post-graduate certificate will prepare you for the challenges of developing software products and web applications for clients. Software Developer is designed to expand your current knowledge and skills into the fields of technology, computer applications, data communications, data design, and software analysis and design.

You will gain programming experience through hands-on learning, and develop the skills necessary to analyze and design information technology based solutions.

**Career Opportunities**

Through your studies, you will develop knowledge and skills in:
- computer programming
- web development and app development and deployment
- approaches to planning and executing IT projects
- role of IT in supporting business decision making

**Transfer credit**
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

### Courses

**Semester 1**
- COSC 600  
  Introduction to Programming 1
- COSC 601  
  Introduction to Programming 2
- CWEB 600  
  Website Development
- CWEB 601  
  Internet Programming and Web Apps 1
- CWEB 603  
  UX/UI Fundamentals

**Semester 2**
- CDBM 601  
  Database Management Systems
- COSC 602  
  Intermediate Programming 1
- COSC 603  
  Intermediate Programming 2
- COSC 604  
  Advanced Programming
- CWEB 602  
  Internet Programming and Web Apps 2

**Semester 3**
- PROJ 602  
  Capstone Project
- TCOM 601  
  Technical Communications

### Technology Management Post-Graduate Certificate

#### Location
- Moose Jaw

#### Start date
- September and January

#### Duration
- 32 to 48 weeks

#### Admission requirements
- A conferred bachelor's degree in Information and Communications Technology from a recognized post-secondary institution
- English Language Requirement

#### Program overview
- The post-graduate certificate in Technology Management will prepare you for the challenges of facilitating business operations and strategy through the provision of technology infrastructure and systems development. You will study the role technology plays in enabling business strategy and vision.
- You will study the fundamentals of IT operations management and IT strategy, providing a high-level view of technology in an organization. You will also study agile project management and practical IT architecture in a hands-on setting, providing you with knowledge of how technology projects and initiatives are successfully executed. You will also learn about the technologies and techniques governing a business's critical data resources and how they support business decision making.
- At the end of your studies you will have the option of pursuing a work-integrated learning experience that connects you with industry and gives you real world experience in the exciting world of technology.
- Prior Learning Assessment and Recognition (PLAR) and transfer credit are not available for this program.

### Career Opportunities

#### Transfer credit
- Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

### Courses

**Semester 1**
- ANLT 600  
  Business Mathematics and Data Analytics
- BCOM 600  
  Business Communications
- CDBM 600  
  Database Design and Development
- CNET 600  
  Enterprise Networking
- COMP 600  
  Software Architecture and Programming

**Semester 2**
- ANLT 601  
  Data Analytics and Business Intelligence
- ETHE 600  
  Ethics, Privacy, and Legal Issues in IT
- MGMT 600  
  IT Operations Management and Strategic Planning
- PROJ 600  
  Agile Project Management for IT
- TCOM 600  
  Business Technology Communications

### Telecommunications Networking Technician Certificate

#### Location
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

Courses

**Semester 1**
- ELEC 150 Passive Direct Current (DC) Circuits 1
- ELEC 151 Passive Direct Current (DC) Circuits 2
- ELEC 152 Passive Alternating Current (AC) Circuits 1
- ELEC 153 Passive Alternating Current (AC) Circuits 2
- ELTR 135 Active Components and Circuits 1
- ELTR 136 Active Components and Circuits 2
- ELTR 137 Digital Integrated Circuits 1
- ELTR 138 Digital Integrated Circuits 2
- MATH 158 Mathematics

**Semester 2**
- CNET 106 A+ Cisco IT Essentials 1
- COOS 101 LINUX+
- ELTR 113 Electronic Telecommunication Principles 1
- ELTR 148 Electronic Communication Principles 1
- ELTR 149 Electronic Communication Principles 2
- ORTN 102 Orientation to Industry
- PROJ 227 Project Management
- SHOP 144 Fabrication Techniques
- TCOM 105 Communications for Technicians

**Semester 3**
- CWEB 100 Software Applications
- IOT 100 Internet of Things Fundamentals
- PROJ 108 Troubleshooting and Project
- SHOP 145 Installation Practices
- SHOP 146 Premises Cabling
- TELE 113 Optical Fiber Basics
- TELE 114 Wireless Systems
- TELE 115 Networking Essentials 1
- TELE 116 Networking Essentials 2
- TELE 117 Legacy Telephony

Web Site Design and Development

Applied Certificate

Location
- Online

Start date
- September (full-time); Varies (part-time):
School of Information and Communications Technology

SASK POLYTECH Programs

- For more information, contact Kevin Mahlberg at kevin.mahlberg@saskpolytech.ca or 306-659-4691.

Duration

- 28 weeks

Admission requirements

- Grade 12
- English Language Requirement

Note

- A basic understanding of computer terminology and operations is necessary for successful program completion. Contact the program at 306-765-1647 for more information.

Program overview

Every organization has a website. Public agencies and private companies, big box brands and mom & pops—they all have a website (or need a better website). If this is something that interests you, check out Saskatchewan Polytechnic’s online Web Site Design and Development program.

Learn to build easy-to-navigate websites, design interactive content, setup and customize a web development environment, develop security protocols and more. It’s a great way to build your skill set … or take your career in an exciting new direction. Graduates are in demand as employees and independent contractors.

Web Site Design and Development is an 8-course applied certificate program that you take entirely online. Learn the skills you need to:

- apply graphic design and production principles
- build visually attractive, functional websites
- develop interactive content
- provide web site administration
- respond to website security issues
- set up and customize a web development environment
- use industry-standard applications, programming and scripting languages (HTML, CSS, JavaScript, etc.)

Program curriculum is regularly updated to keep pace with new capabilities and evolving industry standards. This ensures your training is relevant and in demand.

Online Advantage

Offering the entire 8-course program online lets you complete the applied certificate on your own schedule. Courses use a proven combination of internet-based resources, videos, text-based chat sessions and more. Each course is led by an instructor, who provides guidance, answers questions and offers feedback.

Career Opportunities

Web Site Design and Development graduates work in a wide variety of web-related jobs. Typical job titles include web designer, web developer, web master, web technician, and website administrator.

Potential employers include computer software firms, information technology (IT) firms, marketing agencies and graphic design firms. Carve a career as a freelance consultant or get a job in the IT department of a private corporation or an education, health, government or municipal agency.

Go Further

Build on the knowledge and skills you gained in the Web Site Design and Development applied certificate program by honing your skills with an advanced certificate. The Dynamic Web Development advance certificate provides the skill development to be proficient in sophisticated and secure interactive web content utilizing MySQL, AJAX and server side scripting.

For more information about career opportunities, contact Student Employment Services at a campus nearest you.

Transfer credit

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Courses

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<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>DSGN 101</td>
<td>Elements and Principles of Design 1</td>
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<tr>
<td>DSGN 103</td>
<td>Web Site Design Principles</td>
</tr>
<tr>
<td>GRPH 100</td>
<td>Elements and Principles of Design 2</td>
</tr>
<tr>
<td>MULT 114</td>
<td>Web Authoring 3-Javascript</td>
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<tr>
<td>MULT 120</td>
<td>Web Authoring 1-Basic HTML/CSS</td>
</tr>
<tr>
<td>MULT 124</td>
<td>Web Authoring 2-Intermediate HTML/CSS-CMS</td>
</tr>
<tr>
<td>MULT 125</td>
<td>Interactive Authoring 1</td>
</tr>
</tbody>
</table>

For more information contact Kevin Mahlberg at kevin.mahlberg@saskpolytech.ca or 306-659-4691.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MULT 128</td>
<td>Web Authoring 4- Responsive Web Development</td>
</tr>
</tbody>
</table>
Building Systems Technician Certificate

Location
- Regina

Start date
- September

Duration
- 40 weeks

Admission requirements
- Grade 12 with a minimum of 60% in Workplace and Apprenticeship Math 30 or 60% in Foundations of Math 20 or 60% in Pre-Calculus 20*
- English Language Requirement

Note
Although First Aid and CPR are not admission or graduation requirements, many employers will require them prior to commencing your work experience; therefore, you are encouraged to obtain this certification prior to program commencement or as soon as possible after program commencement.

*Previous Saskatchewan mathematics requirement also accepted:
- Math A30

Program overview
There’s a lot of technology at work in today’s commercial and institutional buildings, from energy efficient boilers to complex HVAC systems (heating, ventilation, air conditioning). Building systems require regular, skilled maintenance—mechanical and technical. That’s why building systems technicians are always in demand. It’s a job that requires good problem-solving skills and the ability to work independently or as part of a team.

Building Systems Technician is a one-year certificate program offered at Saskatchewan Polytechnic, Regina Campus. You’ll receive comprehensive training in maintaining and operating electrical, ventilation, refrigeration and water treatment systems.

Most courses include practical activities to develop your troubleshooting skills. Time in a working facility will give students a real life experience during the second semester work placement. It’s a great way to use what you’ve learned in class and labs in a real-world setting. It’s also a way to develop contacts for possible future employment.

Certification Opportunities
Industry certifications are important to your career mobility and earning power. So, in addition to developing your knowledge and skills, Saskatchewan Polytechnic helps you prepare for industry certification exams. You’ll have an opportunity to write the Technical Safety Authority of Saskatchewan (TSASK) exams:

- 5th Class Power Engineering (5th Class Power Engineering qualifies the certificate holder to operate equipment at the Fireman Boiler Operator level)
- Refrigeration Engineer (Refrigeration Engineer qualifies the certificate holder to operate equipment at the Refrigeration Plant Operator level)

Personal study is recommended before you write any industry certification exam.

Career Opportunities
SASK POLYTECH’s Building Systems Technician certificate combined with industry certifications will open a lot of different doors. Graduates are working in building systems maintenance and operation in medium to large buildings (apartment blocks, hotels, malls, schools, health facilities, etc.). You could work in boiler and refrigeration plants, perform maintenance crew work or take charge of a building. Potential employers include building owners, property management companies and government agencies.

Transfer credit
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Courses

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<thead>
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<th>Semester 1</th>
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<tbody>
<tr>
<td>CODE 102  Legislation and Codes</td>
</tr>
<tr>
<td>ELEC 149  Basic Electricity</td>
</tr>
<tr>
<td>ENGP 105  Power Lab 1</td>
</tr>
<tr>
<td>HDRO 100  Hydronic Heating</td>
</tr>
<tr>
<td>HEAT 100  Heating Systems</td>
</tr>
<tr>
<td>MAIN 109  Plant Maintenance 1</td>
</tr>
</tbody>
</table>
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

MATH 116  Mathematics
SAFE 104  Safety
THER 182  Thermodynamics 1
WTER 100  Water Treatment 1

Semester 2
AIR 104  Air Conditioning
BLDG 112  Building Automation Systems
ELEC 159  Electrical Systems
ENGP 106  Power Lab 2
MAIN 110  Plant Maintenance 2
PLMB 105  Plumbing Systems
PRNT 105  Blueprint Reading
RFRG 104  Refrigeration Systems 1
TCOM 105  Communications for Technicians

Semester 3
BLDG 111  Building Envelope
PROJ 287  Project Management
RFRG 103  Refrigeration Systems 2
WORK 108  Work Experience

CAD/CAM Engineering Technology
Diploma

Location
• Saskatoon

Start date
• August

Duration
• 74 weeks:
  • Year 1 - 37 weeks; Year 2 - 37 weeks

Admission requirements
• Grade 12 with a minimum of 60% in Pre-Calculus 30*, and in Physics 30
• English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:
• Minimum of 60% in Math B30 and C30

Program overview
Imagine you could redesign anything to fit a specific need—make it smaller, bigger or stronger. Now imagine if you could actually “print” a 3D prototype? As a computer-aided design and manufacturing (CAD/CAM) engineering technologist, you’ll help turn great ideas into practical plans.

It’s a career that applies science to mechanical design, so it helps to have an analytical mind and good math skills. You’ll be involved in everything from design and drafting, to fabrication, 3D printing and prototype development.

The CAD/CAM Engineering Technology program is a two-year diploma offered at Saskatchewan Polytechnic, Saskatoon Campus, Idylwyld Dr. Develop the knowledge and skills you need to put computer and engineering principles to work. You’ll learn to create, modify and refine proposed parts interactively, then view emerging designs on a display terminal where you can magnify, rotate, copy, stretch and manipulate it. You’ll learn to create instructions for computer numerically controlled (CNC) machines to automatically produce finished parts.

Saskatchewan Polytechnic's experienced instructors and leading-edge lab equipment provide an exceptional hands-on learning experience. The emphasis on lab work includes instruction in:
• CAD/CAM related engineering disciplines
• CAD/CAM hardware, software and computer networking
• operating machine tools (including CNC)
• quality assurance, concurrent engineering
• rapid prototyping

Diploma to Degree

Use your diploma to ladder into a science degree at Athabasca University in Alberta, an engineering degree at Lakehead University in Ontario or a technology degree at Memorial University in Newfoundland or a mining engineering technology degree at Queen’s University in Ontario.

Career Opportunities

Saskatchewan Polytechnic prepares you to work in both traditional and computer-aided engineering fields.

The manufacturing field is a big employer. You could work in engineering design, drafting, quality control and programming/operating CNC machines. Consulting engineering firms hire grads to work in design and drafting, while research and design firms employ grads in product design, prototype development, solid modeling and advanced stress analysis.

Transfer credit

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School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

Courses

**Year 1 - Semester 1**

- **CAD 191** CAD Systems and Networking
- **COMP 106** Spreadsheets for Engineering Technology
- **DRFT 290** Basic Drafting
- **DRFT 390** CAD Drafting 1
- **DRFT 391** CAD Drafting 2
- **ELTR 287** Computer Hardware
- **ENGM 191** Applied Mechanics: Statics
- **MATH 193** Technical Mathematics and Differential Calculus
- **SEM 101** Technology Seminars
- **TCOM 102** Workplace Communication

**Year 1 - Semester 2**

- **CAD 297** CAD Customization
- **CALC 190** Integral Calculus
- **COSC 193** Programming and Numerical Methods
- **DRFT 291** Advanced Drafting
- **ENG 192** Strength of Materials
- **ENGM 180** Materials of Engineering
- **HYDR 285** Fluid Mechanics
- **MACH 191** Machine Shop Technology
- **SHOP 186** Mechanical Components and Systems Lab
- **TCOM 103** Technical Communication
- **WELD 387** Welding for Technologists

**Year 2 - Semester 3**

- **CAD 283** Advanced CAD Modeling
- **CAD 287** Computer Aided Manufacturing 1
- **DSGN 280** Mechanical Design 1
- **ELEC 279** Basic Electricity
- **ENGM 290** Dynamics
- **MANU 280** Production Management
- **MANU 290** Manufacturing
- **THER 283** Thermodynamics

**Year 2 - Semester 4**

- **CAD 285** Industry Design Project
- **CAD 288** Computer Aided Manufacturing 2
- **CAD 295** Virtual and Rapid Prototyping
- **CAD 299** CAD/CAM Systems Management
- **DSGN 282** Mechanical Design 2
- **DSGN 283** Mechanical Design Project
- **ENG 291** Concurrent Engineering
- **ENG 292** Finite Element Modeling
- **MANU 291** Advanced Manufacturing
- **MANU 293** Quality Assurance and Manufacturing Management
- **PROJ 287** Project Management
- **TCOM 104** Applied Research in Technology

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**Chemical Technology**

**Diploma**

**Location**
- Saskatoon

**Start date**
- September

**Duration**
- 70 weeks
  - Year 1 - 38 weeks; Year 2 - 32 weeks
  - Students will enroll in a four week industry specific research project in January of semester 3.

**Admission requirements**
- Grade 12 with a minimum 60% in each of the following subjects: English Language Arts A30, English Language Arts B30, Chemistry 30 and Pre-Calculus 30*
- English Language Requirement

**Note**
- Accepted applicants may be required to provide evidence of a Criminal Record Check prior to entering the practicum component of the program. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check. The cost of the Criminal Record Check is your responsibility.

*Previous Saskatchewan mathematics requirement also accepted:
- Minimum of 60% in a 30-level math

**Program overview**

Are you good at math and science? If you're looking for a program that takes advantage of your strengths and can launch you into a good career in just two years, check out the Chemical Technology program at Saskatchewan Polytechnic.

Chemical technologists are involved in quality control testing, environmental analysis, product R&D and more. You could work in a variety of settings—industrial plants to commercial and government labs. The mining and resource sectors are big employers, but you’ll also find opportunities in agriculture, food and manufacturing.
Chemical Technology is a nationally accredited, two-year diploma program offered through Saskatchewan Polytechnic, Saskatoon Campus, Idylwyld Dr. You’ll get a well-rounded foundation in scientific principles and analytic practices—essential building blocks for a flexible career. You’ll build knowledge and skills in:

- analytical instrumentation
- basic, organic, physical, analytical and environmental chemistry
- handling and manipulating chemicals
- laboratory quality control and assurance
- recording, processing and reporting data

Learning is hands-on—you’ll spend almost as much time in labs as in the classroom. And you’ll apply what you’ve learned during a four-week industry research project.

Diploma to a Degree

Turn your Chemical Technology diploma into a university degree in just two years. Saskatchewan Polytechnic has transfer agreements with the University of Regina and University of Saskatchewan. You can also transfer into programs at Athabasca University (Alberta), Memorial University (Newfoundland) and Royal Roads University (B.C.). Use your diploma to ladder into a mining engineering technology degree at Queen’s University in Ontario.

Learning Environment

- 24 students are accepted each year
- Students will experience lectures and laboratory classes, as well as tours of relevant industrial laboratories
- Class hours are from 8 am – 4 pm daily. If desired students can take part time studies and complete the program over 3 years
- Homework is required outside of scheduled class time

High Employment Rate

Because the program is designed with input from industry, your education matches real-world needs. And that’s why Saskatchewan Polytechnic Science graduates are so highly sought after by employers. A recent survey shows that six months after graduation, 9 out of 10 Chemical Technology graduates are employed in a training-related field.

Career Opportunities

Chemical technologists can choose from a variety of job possibilities. Saskatchewan Polytechnic graduates are working as laboratory analysts, laboratory technologists, research technical assistants and sales managers.

The mining industry is a major employer, particularly potash and uranium mining companies, but also many smaller exploration companies and agriculture, oil and gas, chemical production, environmental protection, ethanol production, food research and occupational health industries. Look for jobs in commercial, industrial or government laboratories, or for positions in chemical product sales.

Transfer credit

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Courses

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<td>CHEM 151</td>
<td>Organic Chemistry 1 Lab</td>
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<td>CHEM 178</td>
<td>General Chemistry 1</td>
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<td>COMP 175</td>
<td>Introduction to Microsoft Excel 2</td>
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<td>LABT 150</td>
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<td>LABT 151</td>
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<td>MATH 189</td>
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<td>STAT 101</td>
<td>Introductory Statistics and Computer Applications</td>
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**Semester 2**

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<td>Organic Chemistry 2 Lab</td>
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<td>CHEM 179</td>
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<td>CHEM 295</td>
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**Semester 3**

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<tbody>
<tr>
<td>CHEM 282</td>
<td>Nuclear Chemistry</td>
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<tr>
<td>INDG 100</td>
<td>Introduction to Indigenous Studies</td>
</tr>
<tr>
<td>LABT 154</td>
<td>Sampling Techniques</td>
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<td>STAT 281</td>
<td>Statistics and Computer Applications</td>
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**Semester 4**

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<tr>
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<tbody>
<tr>
<td>CHEM 250</td>
<td>Analytical Chemistry</td>
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<tr>
<td>CHEM 251</td>
<td>Analytical Chemistry Lab</td>
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<td>CHEM 292</td>
<td>Physical Chemistry 1</td>
</tr>
<tr>
<td>LABT 250</td>
<td>Analytical Instrumentation 3</td>
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<td>LABT 251</td>
<td>Analytical Instrumentation 3 Lab</td>
</tr>
<tr>
<td>LABT 297</td>
<td>Laboratory Preparation Techniques in Chemistry</td>
</tr>
</tbody>
</table>
If you’re fascinated by what makes computers tick, both inside (hardware) and out (software), becoming a computer engineering technologist has great possibilities. Work in information technology roles, network security, embedded systems, robotics, and automated systems. The future is still unfolding, and your career could go in many directions.

The Computer Engineering Technology program is a three-year, nationally recognized, diploma offered full time at Saskatchewan Polytechnic, Moose Jaw campus. You’ll get an exceptional hands-on learning experience during five semesters of classroom study and three Co-operative Education work terms.

Saskatchewan Polytechnic is unique in our emphasis on both hardware and software. You’ll learn how to:

- analyze, test and design analog and digital circuits
- design, fabricate and populate printed circuit boards
- program personal computers and microcontrollers using various programming languages
- design and test interfaces between computers and peripherals
- design, install and administer networks
- design and test various digital data transmission systems
- install, configure and maintain workstations and servers in various operating system environments

A capstone research project gives you an opportunity to apply what you’ve learned to the development of an original design, from concept through to prototype.

The Co-op Work Term Advantage

Co-operative work terms are paid, so you’ll earn while you learn. Saskatchewan Polytechnic arranges your interviews; it’s up to you to shine. It’s also a chance to develop important “soft skills” in job interviewing, professional attitude, interpersonal communication and more.

Many of our co-op employers require both a valid Saskatchewan Driver's License and a clean Driver's Abstract. For international students, it can take up to 12 months to obtain a Driver's license; therefore, it is to your advantage to come with a Driver's License from your home country if possible.

Diploma to Degree

Use your diploma to ladder into an engineering degree at Lakehead University or mining engineering technology degree at Queen’s University in Ontario or a technology degree at Memorial University in Newfoundland.

Learning Environment

- 24 students are accepted each year.
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

- Students will hands-on lab and project work, lectures and co-operative work terms.
- Class hours are 8:30 a.m. - 4:30 p.m. daily. Students are expected to complete 30-40 hours of homework each week outside of class time.
- There are many group projects that require coordination.
- It is very important that students take initiative and manage their work time effectively.

Career Opportunities

Graduates work as network administrators, systems coordinators and systems analysts in IT training and support, research and development and customer sales and service. You can also pursue your dream career in gaming and multimedia development, graphical user interface development, IT security, web-based applications and more.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-saskpolytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

Courses

**Year 1 - Semester 1**
CAD 100  Computer Aided Design
COMP 112  Introduction to Computer Programming
ENGE 120  Basic Electricity
LABS 120  Basic Electricity Lab
MAT 110  Mathematics for Engineering Technologies
SEM 101  Technology Seminars
STAT 200  Statistics for Technology
TCOM 102  Workplace Communication

**Year 1 - Semester 2**
COHS 220  Networking Computers
DGTL 110  Digital Logic
DGTL 111  Digital Logic Laboratory
ENGE 107  Semiconductor Electronics
ENGE 200  Alternating Current (AC) Basic Electricity
INST 223  Basic Instruments
MAT 112  Differential Calculus for Engineering Technologies
TCOM 103  Technical Communication

**Co-operative Work Term 1**
COOP 101  Co-operative Work Term

**Year 2 - Semester 3**
CIRC 220  Analog Integrated Circuits
CLTR 200  Culture and Diversity
COAP 222  Computer Programming

**Co-operative Work Term 2**
COOP 201  Co-operative Work Term

**Year 2 - Semester 4**
BUS 203  Entrepreneurship for Engineering Technologies
CNST 220  Construction Techniques
COMP 207  Computer Interfacing
COMP 217  Computer Interfacing Laboratory
INST 229  Electronic Instruments
MAT 211  Advanced Mathematics for Engineering Technologies
MGMT 211  Project Management
PHYS 105  Physics

**Co-operative Work Term 3**
COOP 301  Co-operative Work Term

**Year 3 - Semester 5**
COAP 300  Artificial Intelligence
COAP 301  Artificial Intelligence Laboratory
COMP 227  Process Control Systems
COMP 301  Software Systems
COMP 302  Software Systems Laboratory
CSEC 300  Cybersecurity
PROJ 222  Capstone Research Project
TCOM 104  Applied Research in Technology

**Electrical Engineering Technology Diploma**

**Location**
- Moose Jaw

**Start date**
- September

**Duration**
- 76 weeks:
  - There are five academic semesters and three mandatory four-month paid Co-operative Education work terms. Semesters and co-op work term time patterns are listed in Courses below.

**Admission requirements**
- Grade 12 with a minimum of 60% in Pre-Calculus 30*
- Physics 30
- English Language Requirement

Register online at saskpolytech.ca or call 1-866-467-4278
**School of Mining, Energy and Manufacturing**  
**SASK POLYTECH Programs**

*Previous Saskatchewan mathematics requirement also accepted:*
- Minimum of 60% in Math B30 and C30

**Program overview**
Western Canada is growing—our economy, our population, our demand for energy. Electrical engineering technologists are specialists in the generation, transmission, distribution and utilization of energy. It’s a powerful career choice that demands good problem-solving skills and an eye for detail. In return, you'll enjoy good job prospects, excellent mobility and great earning potential.

The Electrical Engineering Technology program is a three-year diploma offered full time at Saskatchewan Polytechnic, Moose Jaw Campus. There are five academic semesters and three Co-operative Education work terms.

You'll study topics similar to Electronic Systems Engineering Technology students, including computer-aided drafting, computer applications and programming, digital logic circuits, basic electricity, semi-conductor electronics and AC circuits. Your knowledge and skills will become more focused as you advance. You'll study:
- electrical system design
- lighting design
- electrical power generation
- relaying and protection
- electrical systems and transmission design
- electrical machines
- industrial control systems
- instrumentation

Lab work and projects provide a hands-on focus to learning. You'll develop a technical proposal, apply research skills to a technical problem, design and build electrical systems and more.

**The Co-op Work Term Advantage**

Co-operative work terms are paid, so you'll earn while you learn. Saskatchewan Polytechnic arranges your interviews; it's up to you to shine. It's also a chance to develop important "soft skills" in job interviewing, professional attitude, interpersonal communication and more.

Many of our co-op employers require both a valid Saskatchewan Driver's License and a clean Driver's Abstract. For international students, it can take up to 12 months to obtain a Driver's license; therefore, it is to your advantage to come with a Driver's License from your home country if possible. Some opportunities require a Criminal Record Check and/or drug and alcohol testing.

Diploma to Degree
Use your diploma to ladder into an engineering degree at Lakehead University in Ontario or a mining engineering technology degree at Queen's University in Ontario or a technology degree at Memorial University in Newfoundland.

**Learning Environment**
- 40 students are accepted each year.
- Students will experience lab and project work, lectures and co-operative work terms.
- Class hours are 8:30 a.m. to 4:30 p.m. daily. On average students are expected to complete 20 hours of homework each week outside class time.
- There are some group projects that require coordination.
- It is very important that students take initiative and manage their work time effectively.

**Career Opportunities**
Demand for electrical engineering technology graduates is strong. There are opportunities in construction, manufacturing, consulting engineering, power generation, renewable energy, mining, oil and gas. You could work in plant operations and maintenance, technical sales and service, automated control systems, design, estimating, metering and more.

**Transfer credit**
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx)

**Courses**

**Year 1 - Semester 1**
- **CAD 226** Computer Aided Design and Drafting
- **ENGE 100** Troubleshooting and Safety
- **ENGE 121** Basic Electricity
- **LABS 123** Basic Electricity Lab
- **MAT 110** Mathematics for Engineering Technologies
- **PHYS 121** Physics 1
- **SEM 101** Technology Seminars
- **STAT 200** Statistics for Technology
- **TCOM 102** Workplace Communication

**Year 1 - Semester 2**
- **DGTL 221** Digital Logic Circuits
- **ELTR 221** Semi-Conductor Electronics
- **ENGE 201** Electrical Machines 1 (DC Machines)

Register online at saskpolytech.ca or call 1-866-467-4278

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Electronic Systems Engineering Technology Diploma

Location

• Saskatoon

Start date

• August

Duration

• 74 weeks:
  - Year 1 - 37 weeks; Year 2 - 37 weeks

Admission requirements

• Grade 12 with a minimum of 60% in Pre-Calculus 30*
• Physics 30
• English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:

• Minimum of 60% in Math B30 and C30

Program overview

Electronic systems are in everything—computers, robotics, medical electronics, fibre optics, automotive electronics, mobile communications, automation, aerospace and surveillance systems and more. That means your potential job market as an electronic systems engineering technologist is huge. It's diverse, dynamic and growing. Saskatchewan Polytechnic offers the well-rounded education you need to start a career designing, servicing and troubleshooting systems.

Electronic Systems Engineering Technology is a two-year diploma program offered full time at Saskatchewan Polytechnic, Saskatoon Campus, Idylwyld Dr. You’ll gain knowledge and skills in:

• analog and digital circuits
• automation systems
• data and radio communications
• electronic prototyping
• microprocessors and microcontrollers
• printed circuit board design
• programmable logic controllers
• technical reporting and project management

You’ll develop troubleshooting skills through practical labs, build project management skills and carry out an applied research project. Your studies culminate in hands-on projects that challenge you to design, test and construct your own electronic prototype.

Diploma to Degree

Use your diploma to ladder into an engineering degree at Lakehead University in Ontario or a technology degree at Memorial University
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

in Newfoundland or a mining engineering technology degree at Queen’s University in Ontario.

Subsidize Your Study

Check out the Canadian Forces (CF) subsidized education plan for Telecommunications Specialists in the Navy, Army or Air Force. The plan covers your education and training costs while in school, and salary, vacation, medical and dental benefits. Contact your local CF Recruiting Centre to learn more.

Career Opportunities

You'll be job ready on graduation. First jobs are most often in the design, development, production, installation, sales and service of electronic products and systems. Employers include industrial facilities, manufacturers, commercial organizations, communications providers, resource companies and public agencies. You might create a career for yourself as an independent consultant or be part of a team in a large organization.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<th>Course Code</th>
<th>Course Name</th>
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<td>DGTL 106</td>
<td>Digital 1</td>
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<tr>
<td>DGTL 107</td>
<td>Digital 1 Lab</td>
<td></td>
</tr>
<tr>
<td>DRFT 189</td>
<td>Electronic Drafting</td>
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<td>ELCT 112</td>
<td>Basic Electricity 1</td>
<td></td>
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<tr>
<td>ELCT 113</td>
<td>Basic Electricity Lab 1</td>
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<tr>
<td>ELCT 114</td>
<td>Basic Electricity 2</td>
<td></td>
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<td>ELCT 115</td>
<td>Basic Electricity 2 Lab</td>
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<td>MAT 110</td>
<td>Mathematics for Engineering Technologies</td>
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<td>SEM 101</td>
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<th>Course Code</th>
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<td>'C' Programming for Embedded Microcontrollers</td>
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<td>DGTL 108</td>
<td>Digital 2</td>
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<td>DGTL 109</td>
<td>Digital 2 Lab</td>
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<td>ELTR 193</td>
<td>Industrial Electronics</td>
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<td>ELTR 194</td>
<td>Industrial Electronics Lab</td>
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<tr>
<td>ELTR 195</td>
<td>Power Electronics</td>
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<tr>
<td>ELTR 197</td>
<td>Analog Devices</td>
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<td>TCOM 102</td>
<td>Workplace Communication</td>
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<td>ELTR 198</td>
<td>Troubleshooting</td>
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<td>INDG 102</td>
<td>Aboriginal Cultural Awareness</td>
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<td>SHOP 110</td>
<td>Fabrication Techniques</td>
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<td>CIRC 104</td>
<td>Sensors</td>
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<td>CNTR 200</td>
<td>Automation</td>
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<td>CNTR 201</td>
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<td>DGTL 203</td>
<td>Microcontrollers</td>
<td></td>
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<td>ELTR 200</td>
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<td>MAT 111</td>
<td>Calculus for Engineering Technologies</td>
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<td>MGMT 102</td>
<td>Project Management</td>
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<td>TCOM 103</td>
<td>Technical Communication</td>
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<tr>
<td>CNTR 105</td>
<td>Process Control</td>
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<td>DGTL 204</td>
<td>Advanced Digital</td>
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<td>DGTL 205</td>
<td>Digital Signal Processing</td>
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<td>ELTR 203</td>
<td>Radio Communications</td>
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<td>ELTR 204</td>
<td>Radio Communications Lab</td>
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<tr>
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<td>Printed Circuit Design</td>
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<td>CNTR 105</td>
<td>Process Control</td>
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<tr>
<td>DGTL 204</td>
<td>Advanced Digital</td>
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<td>DGTL 205</td>
<td>Digital Signal Processing</td>
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<td>CIRC 102</td>
<td>Printed Circuit Design</td>
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<td>CNTR 105</td>
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<td>DGTL 204</td>
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<td>Radio Communications Lab</td>
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</table>

Note: A technical thesis is an integral part of this program.

Electronics Technician Certificate

Location

- Saskatoon

Start date

- September

Duration

- 30 weeks

Admission requirements

- Grade 12 with a minimum of 60% in Workplace and Apprenticeship Math 30 or Foundations of Math 20 or Pre-Calculus 20*
- English Language Requirement

Note
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

- Physics 30 is recommended

*Previous Saskatchewan mathematics requirement also accepted:
- Minimum of 60% in Math A30

Program overview

NOTE: This program is deleted effective April 2017

Most electronics technicians work with the big stuff—cell phone towers, TV and radio stations, satellite, traffic lights, power plant systems and more. You’ll spend most of your days in the field, installing, servicing and repairing equipment. It’s physical, hands-on work that requires good analytical skills and the ability to think on your feet.

The Electronics Technician program is an intensive 30-week full-time certificate program offered at Saskatchewan Polytechnic, Saskatoon Campus, Idylwyld Dr. You’ll build knowledge and develop skills in installing, troubleshooting and servicing electronic equipment. You’ll study:

- electronics fabrication
- circuit analysis and troubleshooting
- digital electronics and microprocessors
- semiconductor fundamentals
- technical communications

You’ll learn how to build electronic devices from the bench up. You’ll also take courses that will help prepare you to write the CompTIA A+ exam, which is well regarded in the industry.

Canadian Forces Education Plan

If you’re interested in the Electronics Technician program, but concerned about costs, consider the Canadian Forces (CF) subsidized education plan. It will cover your education and training costs for a career as a Telecommunications Specialist in the Navy, Army or Air Force. While in school, you’ll receive a salary with vacation, medical and dental benefits. Contact your local recruiting centre to learn more.

Career Opportunities

Our grads are sought-after by industry because of our emphasis on practical skills and fabrication techniques. You could find work as a service technician in a wide variety of industries: oil/gas/petroleum, mining and metal processing, utilities, chemical processing, water treatment, food and beverage, traffic control, biomedical repair, electronic manufacturing and more.

The Electronics Technician certificate program is the shortest path to a career in electronics.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<td>ORTN160</td>
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</table>

Engineering Design and Drafting Technology

Diploma

Location
- Moose Jaw

Start date
- September

Duration
- 76 weeks:
  - There are five academic semesters and three mandatory four-month paid Co-operative Education work terms.

Admission requirements

Register online at saskpolytech.ca or call 1-866-467-4278

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School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

- Grade 12 with Pre-Calculus 30*
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:
- Math A30, B30 and C30

Program overview

Engineering Design and Drafting Technologists participate in multi-discipline engineering projects. As technologists in this dynamic role, we use industry-standard software to collaborate, design, model, draft, coordinate and document projects in many disciplines, such as construction, mining and manufacturing.

The Engineering Design & Drafting Technology program is a three-year diploma offered full time at Saskatchewan Polytechnic, Moose Jaw Campus. You'll take five academic semesters and three Co-operative Education work terms. You'll be trained in:

- computer aided drafting (CAD)
- 2D drafting
- 3D modeling
- cadastral survey drafting
- digital mapping
- civil, mechanical and structural drafting
- building information modeling (BIM)
- geographic information systems (GIS)
- cadastral surveying
- civil, mechanical and structural design
- computer programming
- engineering materials
- applied mechanics
- fluid mechanics applications
- project management

Practical experience includes using current industry standard CAD software to design and produce engineering projects in 2D and 3D environments. You’ll complete a major project using Building Information Modeling (BIM) Technology by integrating civil, mechanical piping systems and structural design, applying the concepts of project management and carrying out an applied capstone research project.

The Co-op Work Term Advantage

Co-operative work terms are paid, so you'll earn while you learn. Saskatchewan Polytechnic arranges your interviews; it's up to you to shine. It's also a chance to develop important "soft skills" in job interviewing, professional attitude, interpersonal communication and more. Many of our co-op employers require both a valid

Saskatchewan Driver's License and a clean Driver's Abstract. For international students, it can take up to 12 months to obtain a Driver's license; therefore, it is to your advantage to come with a Driver's License from your home country if possible. Some opportunities require a Criminal Record Check and/or drug and alcohol testing.

Diploma to Degree

Use your diploma to ladder into a construction management degree at Sask Polytech, Bachelor of Engineering Technology Manufacturing or Bachelor of Engineering Technology Petroleum at Cape Breton University, Bachelor of Technology at Memorial University or a BTech (mining) degree at Queen’s University.

Learning Environment

- 24 students are accepted each year
- Students will experience computer based assignments and project work, lectures, and co-operative work terms
- Class hours are 8:30am – 4:30pm Monday to Friday
- Students are expected to complete an average of 20 hours of homework per week, outside of class time, time management is important

Career Opportunities

Saskatchewan Polytechnic graduates are sought after as computer-aided draftspersons. Potential employers include engineering firms, construction companies, land surveyors, mining, manufacturing and fabrication companies, utilities and all levels of government. Your work could involve electrical, mechanical and structural design of buildings and other structures, land development or infrastructure projects such as sewer and water facilities.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx)

Courses

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<tr>
<td>SEM 101</td>
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SRVY 104 Survey Data Interpretation for Design Drafting
TCOM 102 Workplace Communication

Year 1 - Semester 2
BIM 100 Introduction to Building Information Modelling (BIM) Technology
CADD 211 Computer Aided Drafting 2
CADD 212 Integrated CADD Projects
CADD 221 CADD Customization
DRFT 205 Mechanical Drafting Fundamentals
DRFT 209 Building Service Drafting
ENG 100 Applied Theory of Structures
MAT 226 Technical Mathematics and Differential Calculus

Co-operative Work Term 1
COOP 101 Co-operative Work Term

Year 2 - Semester 3
COAP 127 Computer Programming
CVEN 198 Civil Engineering Fundamentals
ENG 200 Applied Fluid Mechanics
ENG 201 Applied Mechanics of Materials
MAT 201 Technical Mathematics and Integral Calculus for EDD Technology
MECH 200 Industrial Mechanical and Piping Drafting 1
STRU 104 Structural Drafting

Co-operative Work Term 2
COOP 201 Co-operative Work Term

Year 2 - Semester 4
CVEN 199 Civil Design 2
CVEN 200 Civil Applications
GMTC 202 Geospatial Information Systems
MECH 201 Industrial Mechanical and Piping Drafting 2
MECH 210 Elements of Applied Mechanical Drafting
PROJ 287 Project Management
STRU 200 Structural Design 1
TCOM 103 Technical Communication

Co-operative Work Term 3
COOP 301 Co-operative Work Term

Year 3 - Semester 5
CVEN 201 Civil Design Project
MECH 202 Industrial Mechanical and Piping Project
MGMT 207 Project Management Applications
PROJ 206 Capstone Project
STRU 201 Structural Design 2
STRU 202 Structural Design Project
TCOM 104 Applied Research in Technology

Fabricator - Welder
Certificate

Location
- Regina
- Saskatoon

Start date
- September

Duration
- 34 weeks

Admission requirements
- Grade 12 with Foundations of Math 20 or Workplace and Apprenticeship Math 20 or Pre-Calculus 20*
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted
- Math 20

Program overview
Metal fabricator-welders are in high demand—in the oil patch, mining, manufacturing and construction. It’s a trade that requires a high level of skill and a comprehensive knowledge of industrial welding and joining processes. The payoff is high wages and good career mobility.

It's a great way to jump into the workforce … in either the welding or steel fabrication trade.

Fabricator-Welder is a one-year, dual certificate program offered at Regina and Saskatoon campuses. You’ll learn from experienced instructors how to interpret drawings and use different welding processes and metal forming machinery. Working in Saskatchewan Polytechnic’s well-equipped shops, you’ll be trained in:

- benchwork and trade safety
- communications, trade math and print reading
- layout, template development and fitting
- gas metal arc and gas tungsten arc welding
- oxy-fuel processes and plasma arc cutting
- rigging and electric overhead crane operation
- shielded metal arc welding
- shop management

You’ll also fabricate several projects, complete your Canadian Welding Bureau (CWB) welder qualification tests and participate in a one-week work experience.

Apprenticeship Credit
With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more,
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

As a graduate of the Fabricator-Welder program, you can work in the custom fabrication, construction, mass production, maintenance, petroleum, mining, forestry and railway industries. You can work in either welding or steel fabrication. Steel fabricators work in steel fabrication plants and heavy machinery manufacturing companies.

Welders work for companies that manufacture structural steel plate work, boilers, heavy machinery and other metal products, and for welding contractors and welding shops. Once you gain experience and skills, you can also contract yourself out or start your own business.

Transfer credit

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<td>Introduction to Gas Tungsten Arc Welding</td>
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Geomatics and Surveying Engineering Technology Diploma

Location

- Moose Jaw

Start date

- September
  - Refer also to our approved Academic Year

Duration

- 80 weeks

Admission requirements

- Grade 12 with Pre-Calculus 30*
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:

- Math A30, B30 and C30

Program overview

History has shown us that exploration and navigation have led to the development of many science-based careers and geomatics is one of these. Students in our Geomatics program will learn about representing the world and its environment and the importance of the three-dimensional information that we see every day. You will learn a variety of surveying techniques from the fundamentals of cadastral surveying using ground-based equipment to data collection with the modern space-based GPS systems. You will also learn how smart phones can provide you with live maps and how geographic information systems (GIS) can be used to update and analyze these maps. You will be introduced to remote sensing technologies for land-use/land-cover planning, resource mapping, atmospheric monitoring and environment management.

If you enjoy discovering the unknown and travelling to unexplored places that not many people have experienced, if you are creative and like to think on your feet and solve problems on your own, if you enjoy the freedom and experiences that the natural environment has to offer and take pride in seeing what others have missed, then Saskatchewan Polytechnic's Geomatics and Surveying Engineering Technology program will appeal to you.
Our Geomatics and Surveying Engineering Technology program has national recognition from the Canadian Board of Examiners for Professional Surveyors (CBEPS).

The Geomatics and Surveying Engineering Technology program is a three-year diploma program offered full time at Moose Jaw Campus. You’ll take five academic semesters and participate in three Co-operative Education work terms.

You’ll develop knowledge and skills based on industry standards in the collection, storage, manipulation, analysis, retrieval and presentation of geographic information. You’ll learn how to:

- collect three-dimensional information from the field using modern survey-grade equipment
- analyze and derive information using aerial photographs and satellite imagery
- use laser scanners and remote sensing methods to collect information for engineering applications
- prepare plans based on data collected from various sources including field surveys and UAV flights
- produce professional industry-focus reports

The Co-op Work Term Advantage

Co-operative work terms are paid placements with leading companies to allow you to gain working experience with an opportunity to earn while learning. Saskatchewan Polytechnic arranges interviews with industry partners to provide real-world experiences to enhance your learning experience. These work terms will also allow you to enhance your professional networking during your education. You will receive a diploma with built-in working experience at graduation.

Many of our co-op employers require both a valid Saskatchewan driver's license and a clean Driver's Abstract for employment. For international students, it can take up to 12 months to obtain a driver's license; therefore, it is to your advantage to come with a valid driver's license from your home country if possible.

Some opportunities require a Criminal Record Check and/or drug and alcohol testing.

Diploma to Degree

Use your diploma to ladder into a technology degree at

- Construction Management degree
- BCIT in British Columbia;
- Cape Breton University in Nova Scotia;
- Memorial University in Newfoundland;
- Queen's University in Ontario; or
- University of Lethbridge

Learning Environment

- 20 students are accepted each year
- students will experience outdoor and project work, lectures, labs and co-operative work terms
- class hours are typically from 8:30 a.m. to 4:30 p.m. daily; students are expected to complete homework for most courses each week outside class time
- there are many group projects that require coordination
- it is very important that students take initiative and manage their work time effectively

Supplies

Along with your own school supplies, you will be expected to bring your own safety vest and over the ankle CSA-approved boots. A current valid Standard First Aid certification is recommended. Outdoor classes are delivered in all weather conditions and students are expected to dress for extended periods outdoors.

Career Opportunities

Geomatics technologists are in high demand. Your first job will likely be as a field surveyor in an urban or remote environment. You could also work in an office using field data, aerial photographs and satellite imagery to create computer-based maps, drawings and more. You may seek a more mainstream surveyor career or specialize in the GIS industry. Geomatics technologists have the opportunity to advance to become a Commissioned Land Surveyor within their region or territory.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

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<td>DRFT 390</td>
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<td>GIS 200</td>
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</table>

Industrial Mechanics Applied Certificate

Location
- Delivery is subject to needs assessment.

Start date
- Varies

For more information, contact Janice Matwishyn at janice.matwishyn@saskpolytech.ca (306-765-1564) or Gerry Rupchan at Gerry.rupchan@saskpolytech.ca (306-775-7486).

Duration
- 16 weeks

Admission requirements
- Effective September 2018: Grade 12 with one of the following mathematics: Foundations of Math 20 or Workplace and Apprenticeship Math 20 or Pre-Calculus 20
- English Language Requirement

Program overview
The Industrial Mechanics applied certificate program may be offered at all Saskatchewan Polytechnic campuses subject to a needs assessment. It is also delivered off campus through continuing education.

Apprenticeship Credit
With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities
Industrial mechanics are also known by other trade names (i.e., maintenance mechanics, millwrights or machine repairmen). Graduates may find employment in commercial or industrial operations that use machinery. These include wood, cereal, meat processing and power generating plants, hard rock and potash mines, mills and refineries.

Transfer credit
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Courses
- DRFT 113 Drafting and Blueprint Reading
- MATH 107 Trade Mathematics

Register online at saskpolytech.ca or call 1-866-467-4278  Sask Polytech Calendar 2019-2020
### Industrial Mechanics Certificate

**Location**
- Prince Albert
- Saskatoon

**Start date**
- September

**Duration**
- 32 weeks

**Admission requirements**
- Effective for September 2018: Grade 12 with one of the following mathematics: Foundations of Math 20 or Workplace and Apprenticeship Math 20 or Pre-Calculus 20
- English Language Requirement

**Program overview**
If you like working with machinery, enjoy solving mechanical problems and are good with your hands, check out Saskatchewan Polytechnic’s Industrial Mechanics program. You’ll get the basic knowledge and skills you need to install, repair, overhaul and maintain stationary, industrial machinery and mechanical equipment.

Demand for industrial mechanics—also called millwrights—is high across western Canada. Oil & gas and mining are big employers, but there’s also demand in manufacturing, milling, power generation and processing. Wherever mechanical equipment and machines need to be installed, repaired, overhauled and maintained, there is work for industrial mechanics and millwrights.

Industrial Mechanics is a one-year certificate program offered at Saskatchewan Polytechnic Saskatoon campus and Saskatchewan Polytechnic Prince Albert campus. Working in well-equipped shops with highly qualified instructors, you’ll get practical, hands-on training in:
- basic math, drafting and blueprint reading
- basic welding, fabrication and installation
- conveyance systems, pumps and pipe fitting
- mechanical components
- preventative maintenance
- using tools of the trade

**50% Shop Time, 50% Class Time**
Hands-on learning means you’ll spend much of your time applying what you learn in Saskatchewan Polytechnic’s well-equipped shops. Strong industry support for our students means you’ll work with the latest tools and equipment. You’ll also get a chance to apply your skills during a two-week work experience.

**Apprenticeship Credit**
With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

**Career Opportunities**
Saskatchewan Polytechnic Industrial Mechanics graduates work in many different industries: oil and gas, mining, milling, manufacturing, power generation and processing. Wherever mechanical equipment and machines need to be installed, repaired, overhauled and maintained, there is work for industrial mechanics and millwrights.

**Transfer credit**
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<td>WLDR 138</td>
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Innovative Manufacturing Diploma

Location

- Regina

Start date

September (program begins in 2017)

Duration

- Year 1 - 44 weeks; Year 2 - 32 weeks

Admission requirements

- Grade 12 with:
  - Minimum 60% in Foundations of Mathematics 20 or Pre-Calculus 20 or Workplace and Apprenticeship Math 30 *
  - English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:

- Minimum 60% in Math 20 or General Math 30

Program overview

Saskatchewan's manufacturing sector continues to grow and need skilled workers. With a diploma in Innovative Manufacturing you will be prepared to help meet these needs. The program offers a wide range of skill-based training in all aspects of the manufacturing industry, including design, CAD/CAM drafting, Computer Numerical Control (CNC) machining, welding, fabrication, robotics, 3-D printing and project management. Throughout your studies you will practice your skills and complete projects using industry-standard tools and equipment. As part of your training, you will have an opportunity to participate in a two-week, industry-based work placement.

Program faculty are accredited in their respective fields, have worked in industry and will teach you up-to-date manufacturing techniques and processes.

Career Opportunities

As a graduate from the Innovative Manufacturing diploma program, you may find employment with independent manufacturing companies as well as government agencies. Depending on the wide range of industry requirements, some of your work duties may include designing, drafting and fabricating machine parts, developing working plans and prototypes, as well as contributing to quality assurance and quality control, safety and production requirements.

Transfer credit

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Courses

Year 1 - Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BESK 170</td>
<td>Bench Skills</td>
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<tr>
<td>CAD 181</td>
<td>CAD Drafting</td>
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<tr>
<td>DRFT 174</td>
<td>Drafting Principles</td>
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<tr>
<td>ENGL 101</td>
<td>Critical Reading and Writing</td>
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<td>MATH 104</td>
<td>Applied Mathematics</td>
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<td>MEAS 161</td>
<td>Precision Measurement and Tooling</td>
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<td>SEM 101</td>
<td>Technology Seminars</td>
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<td>SOCI 171</td>
<td>Culture and Diversity in Canadian Society</td>
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Year 1 - Semester 2

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<td>COM 170</td>
<td>Professional Workplace Communication</td>
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<td>DRFT 177</td>
<td>Mechanical Drafting</td>
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<td>MACH 155</td>
<td>Drilling Machine Operations</td>
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<td>MATH 167</td>
<td>Applied Mathematics 2</td>
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<td>MECH 160</td>
<td>Applied Mechanics: Statics</td>
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<td>WLDR 151</td>
<td>Cutting Processes</td>
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<td>WLDR 152</td>
<td>Shielded Metal Arc Welding</td>
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<td>WLDR 153</td>
<td>Gas Metal Arc Welding 1</td>
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Year 1 - Semester 3

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<td>Milling Machine Operations</td>
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<td>MACH 151</td>
<td>Lathe Operations</td>
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<td>MACH 152</td>
<td>Computer Numerical Control 1</td>
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<td>MATE 170</td>
<td>Manufacturing Materials</td>
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<td>WORK 169</td>
<td>Work Experience</td>
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Year 2 - Semester 4

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<tr>
<td>CAM 170</td>
<td>Computer Aided Manufacturing 1</td>
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</table>
CAM 171 Computer Aided Manufacturing 2
HYDR 173 Fluid Power
MANU 170 Manufacturing 1
MECH 161 Applied Mechanics: Dynamics
WLDR 154 Gas Metal Arc Welding 2
WLDR 155 Flux-Cored, Metal-Cored and Advanced Wire Feed Processes
WLDR 156 Gas Tungsten Arc Welding

**Year 2 - Semester 5**
MACH 153 Computer Numerical Control 2
MACH 154 Computer Numerical Control 3
MANU 171 Manufacturing 2
MANU 280 Production Management
MANU 293 Quality Assurance and Manufacturing Management
PROJ 184 Project
PROJ 287 Project Management
TCOM 104 Applied Research in Technology
WLDR 157 Fabrication Equipment

- Minimum of 60% in Math B30 and C30

**Program overview**

Whether at urban power plants or remote mine sites, big machines are working 24/7. These machines are controlled by complex instruments... so complex it takes specialized technologists to look after them.

Instrumentation engineering technology is a specific skill set—you need to be comfortable with technology, good at visualizing how systems work and interested in troubleshooting solutions. It's also a career with diverse job opportunities. Demand is especially high in heavy industry, mining, manufacturing and production.

Co-operative work terms are paid, so you'll earn while you learn. Saskatchewan Polytechnic arranges your interviews; it's up to you to shine. It's also a chance to develop important "soft skills" in job interviewing, professional attitude, interpersonal communication and more.

Many of our co-op employers require both a valid Saskatchewan Driver's License and a clean Driver's Abstract. For international students, it can take up to 12 months to obtain a Driver's license; therefore, it is to your advantage to come with a Driver's License from your home country if possible.

Saskatchewan Polytechnic offers the only accredited instrumentation engineering technology program in Saskatchewan. The three-year diploma is offered full time at Saskatchewan Polytechnic Moose Jaw campus. During five academic semesters and three Co-operative Education work terms, you'll get practical training in:

- analytical instruments
- codes and standards
- computer programming
- data communications and networks
- digital and linear circuits
- digital logic
- distributed systems
- drafting
- electronics
- instrument measurement
- machine shop
- process applications
- project management
- relay and instrument controls

Classroom theory is supported by extensive lab time. You'll have access to leading-edge equipment and supportive instruction as you apply what you've learned in experiments, applied research and a major second-year project.

Instrumentation Engineering Technology Diploma

**Location**
- Moose Jaw

**Start date**
- September

**Duration**
- 72 weeks
- There are five academic semesters and three mandatory four-month paid Co-operative Education work terms. Semesters and co-op work term time patterns are listed in Courses below.

**Admission requirements**
- Grade 12 with a minimum of 60% in Pre-Calculus 30*
- Physics 30
- English Language Requirement

**Note**
- Colour blindness may hinder laboratory performance and certain employment opportunities.

*Previous Saskatchewan mathematics requirement also accepted:
The Co-op Work Term Advantage

Co-operative work terms are paid, so you'll earn while you learn. Saskatchewan Polytechnic arranges your interviews; it's up to you to shine. It's also a chance to develop important "soft skills" in job interviewing, professional attitude, interpersonal communication and more.

Many of our co-op employers require both a valid Saskatchewan Driver's License and a clean Driver's Abstract. For international students, it can take up to 12 months to obtain a Driver's licence; therefore, it is to your advantage to come with a Driver's License from your home country if possible.

Diploma to Degree

Use your diploma to ladder into a technology degree at Memorial University in Newfoundland or a mining engineering technology degree at Queen’s University in Ontario.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

Instrumentation engineering technologists work at oil refineries, fertilizer and petrochemical plants, mine and mill sites, manufacturing facilities, for consulting engineering firms, for sales and service companies. The type of work is also varied; you could be involved in installation, calibration, maintenance, operation and monitoring, upgrading and trouble-shooting.

Transfer credit

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Courses

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<td>Final Control Elements</td>
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<td>MAT 221</td>
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<td>PHYS 221</td>
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Co-operative Work Term 1

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<td>INST 220</td>
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<td>INST 224</td>
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Co-operative Work Term 2

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<td>INST 205</td>
<td>Instrument Control</td>
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<td>INST 228</td>
<td>Instrument Measurement</td>
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<td>INST 230</td>
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<td>MAT 247</td>
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Co-operative Work Term 3

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<td></td>
<td>CNTR 229</td>
<td>Advanced Controls</td>
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<td></td>
<td>COMP 238</td>
<td>Data Communications and Networks</td>
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<td>INST 234</td>
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<td>INST 236</td>
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<td>PROJ 225</td>
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<td>TCOM 104</td>
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Ironworker 
Applied Certificate

Location
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

- Delivery is subject to needs assessment.

Start date
- Varies

For more information, contact Steve Guillaume (Moose Jaw) at guillaume@saskpolytech.ca or 306-691-8462.

Duration
- 14 weeks

Admission requirements
- Grade 10
- English Language Requirement

Program overview
As a student in the program, you will receive basic knowledge and develop skills to interpret drawings, place and test concrete, lift and shift loads of differing shapes and sizes, and erect and dismantle building components.

The Ironworker Applied Certificate program may be offered at Saskatchewan Polytechnic Moose Jaw Campus subject to a needs assessment, and may be delivered off-campus through continuing education and the regional college system.

Apprenticeship Credit
With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities
Ironworkers field fabricate, weld, cut, erect and dismantle structural and ornamental metal work. They also erect and place pre-cast concrete, and rig and place machinery and equipment.

Graduates may find employment with heavy construction firms, metal fabricating businesses and commercial construction builders.

Ironworkers usually work full-time, often outdoors in all kinds of weather, and at great heights. The working environment tends to be fast-paced, and ironworkers are sometimes required to travel from one project to another.

Transfer credit
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Courses
BPRT 104 Drawing Interpretation
COMM 127 Fundamental Communication Skills
MATE 104 Introduction to Re-Bar
MATE 186 Materials Handling and Equipment
MATH 117 Industrial Mathematics
RIGG 104 Rigging
SCAF 120 Scaffolds and Rigging
STRU 100 Erect and Dismantle Steel Building
STRU 101 Structural Steel
WLDR 127 Flame Cutting
WORK 118 Work Experience

Machinist Certificate

Location
- Regina
- Saskatoon

Start date
- September

Duration
- 34 weeks

Admission requirements
- Grade 10
- English Language Requirement

Program overview
Machinists are in high demand in western Canada—from the oil patch to power utilities, from manufacturing facilities to mines, mills and chemical plants. The job demands both problem-solving and creativity to machine parts to blueprint specifications.

Saskatchewan Polytechnic's Machinist certificate program can fast-track you into the workforce, and give you a head start on apprenticeship. You’ll need good computer skills, math skills and be comfortable working in industrial settings.

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020
Machinist is a one-year certificate program offered in Saskatoon and Regina. You’ll learn on a variety of machine tools in Saskatchewan Polytechnic’s well-equipped shops including lathes, mills, drill presses, surface grinders, CNC lathes and machining centres. You’ll also learn online, blended training for the CNC course, and participate in an industry-based work experience.

Experienced instructors who understand the demands of industrial workplaces, from maintaining workflow to working safely, will help you build knowledge and skills in:

- blueprint reading, technical drawing, precision measurement
- communications and applied math
- computer numerical control (CNC)
- drilling machine operations
- grinding and sawing operations
- heat treatment processes
- lathe operations
- materials selection
- milling machine operations

Apprenticeship Credit

With this Sask Polytech credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Get More Information

If you are interested in this program, consider attending this special event at the Saskatoon campus on January 19 or March 9, 2018.

Career Opportunities

Graduates of the certificate program are working in manufacturing facilities, equipment repair shops, custom machine shops, steel mills, metal fabrication plants, power generating plants, food processing plants, mines, welding repair shops, engine rebuilding shops and machine manufacturing companies.

Transfer credit

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Courses

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<td>COMM 106</td>
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<td>EMPS 102</td>
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<td>MACH 100</td>
<td>Computer Numerical Control</td>
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<td>Drilling Machine Operations</td>
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<td>MACH 102</td>
<td>Grinding Operations</td>
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<td>MACH 104</td>
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<td>MACH 105</td>
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<td>MATE 100</td>
<td>Materials Selection</td>
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<td>Blueprint Reading</td>
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<td>THER 100</td>
<td>Heat Treatment Processes</td>
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<td>Welding Operations</td>
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<tr>
<td>WORK 100</td>
<td>Industrial Attachment</td>
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</tbody>
</table>

Mechanical Engineering Technology Diploma

Location
- Saskatoon

Start date
- August

Duration
- 74 weeks:
  - Year 1 - 37 weeks; Year 2 - 37 weeks

Admission requirements
- Grade 12 with a minimum of 60% in Pre-Calculus 30*, and in Physics 30
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:
- Minimum of 60% in Math B30 and C30

Program overview

Mechanical engineering technologists help ensure the machines and systems our society depends on work the way they’re supposed to. You need an aptitude for all things mechanical, but you also need good problem-solving and analytical skills, because your job will involve troubleshooting problems; finding better, more efficient ways to do things; and ensuring vital systems stay up and running.
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

The job market is strong; the opportunities are diverse. You could work in mechanical design for a consulting engineering firm, as an engineering assistant at a manufacturing plant, as a systems inspector for a regulatory agency or as a technical sales representative for an equipment distributor.

Mechanical Engineering Technology is a two-year diploma program offered at Saskatchewan Polytechnic, Saskatoon Campus. The program focuses on mechanical design and drafting, industrial and HVAC (heating, ventilation, air conditioning) systems and process instrumentation. You’ll learn how to apply scientific principles to solve basic engineering problems involving:

- air conditioning
- computer applications
- engineering design
- fluids and materials
- industrial instrumentation
- power and thermodynamics
- process control
- project management

Saskatchewan Polytechnic’s hands-on approach to learning means you’ll learn by doing. You’ll design a complete air conditioning system, use cutting edge software to design a machine, conduct an applied research project, troubleshoot solutions on a technical project and more.

Diploma to Degree

Use your diploma to ladder into bachelor of engineering or technology degree programs at Lakehead University in Ontario or Memorial University in Newfoundland or Queen’s University in Ontario.

Career Opportunities

Mechanical Engineering Technology graduates are working in many different industries—manufacturing, mining, transportation, the oil patch and more. There are entry-level jobs in mechanical design and drafting, product testing, process instrumentation, systems inspection, technical sales and support. Potential employers include consulting engineering firms, mining and manufacturing companies, equipment distributors, utilities, municipalities and government agencies.

Transfer credit

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Courses

**Year 1 - Semester 1**

- CAD 181 CAD Drafting
- COAP 172 Computer Applications
- DRFT 174 Drafting Principles
- ENGM 191 Applied Mechanics: Statics
- FMEC 288 Fluid Mechanics
- MATH 182 Mathematics
- SEM 101 Technology Seminars
- TCOM 102 Workplace Communication

**Year 1 - Semester 2**

- CALC 181 Technical Mathematics and Integral Calculus
- COSC 181 Computer Science
- DRFT 175 Mechanical Drafting
- DRFT 176 Drafting Project
- ELTR 182 Electricity and Electronics 1
- ENGM 180 Materials of Engineering
- MACH 191 Machine Shop Technology
- TCOM 103 Technical Communication
- THER 180 Basic Thermodynamics
- WELD 387 Welding for Technologists

**Year 2 - Semester 3**

- CAD 281 Computer Aided Engineering 1
- ELTR 289 Electricity and Electronics 2
- ENGM 193 Applied Mechanics - Dynamics
- ENGM 289 Strength of Materials
- HYDR 283 Fluid Power
- MANU 288 Fabrication
- THER 181 Applied Thermodynamics

**Year 2 - Semester 4**

- AIR 288 Air Conditioning
- CAD 282 Computer Aided Engineering 2
- ENGM 280 Mechanical Design
- ENGM 281 Mechanical Design Project
- INST 288 Instrumentation and Controls
- MGMT 285 Engineering Contracts
- PROJ 287 Project Management
- PROJ 288 Project
- TCOM 104 Applied Research in Technology
- THER 284 Energy Conversion Systems

Mining Engineering Technology

Diploma

Location

- Saskatoon

Start date

Register online at saskpolytech.ca or call 1-866-467-4278
August

Duration

- 68 weeks

Admission requirements

- Grade 12 with a minimum of 60% in Pre-Calculus 30*
- Physics 30 is recommended but not required
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:

- Minimum combined average of 60% in Math A30, B30 and C30

Program overview

Mining is one of the fastest growing sectors in Saskatchewan. In the next 10 years, estimates predict over 15,000 new workers will be needed in the industry—including mining engineering technologists.

Mining engineering technologists work in hard and soft rock mining operations here in Saskatchewan, across Canada and around the world. It’s a well-paying career that can involve surveying, ventilation, ground control, mine planning or supervision. You need to be a team player, good at problem solving, comfortable working with new technology and committed to workplace safety.

Mining Engineering Technology is a two-year diploma program offered at Saskatchewan Polytechnic Saskatoon campus. In the classroom and in the lab, you’ll learn to apply scientific principles to basic mining engineering situations.

You’ll develop knowledge and skills in:

- basic geology, geophysics, electricity and instrumentation
- computer applications in mining
- fluid mechanics
- ground control
- mine hydrology and environmental concerns
- mine ventilation
- ore processing and transportation
- project management
- safety
- soil, concrete and shotcrete testing
- surveying and drafting

Hands-on learning involves everything from computer simulations, to geology and surveying labs, to mechanical and materials testing labs. Second year projects will help you build skills in mine design, blasting and ventilation. You’ll also carry out an applied research project. This emphasis on learning by doing ensures you’re ready to work from day one after graduation.

Diploma to Degree

Use your diploma to ladder into a mining engineering technology degree at Cape Breton University, Queen’s University, Memorial University or the University of Saskatchewan.

Career Opportunities

Mining engineering technologists are prepared to work in both surface and underground mining operations. Saskatchewan mining companies are eager to recruit graduates. You could also work for a testing lab, an engineering consulting firm or a mine equipment company. As you build experience, you could advance into design work, supervision and project management.

For more information about career opportunities related to this program, contact Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit

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Courses

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<td>ENGM 100</td>
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<td>Introduction to Mineralogy and Ore Deposits</td>
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<td>MINE 107</td>
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<td>MINE 108</td>
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<td>MINE 109</td>
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<th>Semester 4</th>
<th>Course Code</th>
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</table>
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FMEC 200 Fluid Mechanics
FMEC 201 Fluid Mechanics Lab
GRND 200 Introduction to Rock Mechanics and Ground Control
GRND 202 Introduction to Rock Mechanics and Ground Control Lab
MINE 201 Mining Methods
MINE 202 Mining Hydrology and Environmental Management
MINE 203 Blasting
MVNT 200 Mine Ventilation
PROJ 287 Project Management

Semester 5
ELEC 279 Basic Electricity
GEOL 200 Geophysical Data Collection and Analysis
GRND 201 Ground Control Design
MINE 204 Mine Design and Planning
MINE 205 3D Drafting and Underground Software
MVNT 201 Mine Ventilation Planning and Design
PROJ 297 Project
SRVY 206 Underground Surveying
TCOM 104 Applied Research in Technology

Power Engineering Technician Certificate

Location

- Regina
- Delivery is subject to needs assessment

Start date

- September (Regina Campus)

For more information about college deliveries and college start dates, contact Carlton Trail Regional College (1-800-667-2623), Great Plains College (1-866-296-2472), Parkland College (1-866-783-6766), or Southeast Regional College (1-866-999-7372).

Duration

- 36 weeks

Admission requirements

- Grade 12 with Foundations of Math 30 or Pre-Calculus 30*
- Minimum overall average of 65%
- English Language Requirement

Note

- Chemistry and Physics are not admission requirements; however, they would be extremely helpful to your success in the program and may be required by some employers as a condition of employment.

*Previous Saskatchewan mathematics requirement also accepted:
- Math B30

Program overview

Power engineering technicians help keep power plants running safely and efficiently. A shortage of certified technicians means job opportunities have never been better. You could work in the oil patch, mining, manufacturing, energy, health and other industries. It's a physical job that requires manual dexterity and good vision, as well as problem-solving skills and a knack for working with machinery.

Saskatchewan Polytechnic is Saskatchewan’s primary provider of power engineering certification. We offer two levels of training: the one-year Power Engineering Technician certificate program and the two-year Power Engineering Technology diploma program.

The one-year Power Engineering Technician certificate program is offered at Saskatchewan Polytechnic Regina Campus, and at Southeast College, (Estevan), Great Plains College (Swift Current), Parkland College (Yorkton), and Carlton Trail College (Humboldt). You'll study Fourth Class interprovincial standardized material, which will prepare you to challenge interprovincial Fourth Class examinations.

You'll receive practical training in boiler operations, maintenance techniques and tool use. You'll develop troubleshooting skills in practical labs, get boiler firing time in the power lab and industry work experience in your second term.

The balance of hands-on labs, work experience and exam preparation makes Saskatchewan Polytechnic graduates productive on the job from day one—something employers look for when hiring and promoting.

Certification Opportunities

Power engineering is divided into levels of skill and training called classes (First Class is the highest level). You progress from one class to another through a combination of work experience, course completions and rigorous interprovincial exams.

As a Power Engineering Technician graduate, you'll be prepared to challenge:
- TSASK (Technical Safety Authority of Saskatchewan) interprovincial (standardized) Fourth Class exams, and
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

- TSASK provincial Refrigeration Engineers Certificate exam, which allows you to operate larger refrigeration plans in Saskatchewan

Personal study is recommended before you write any industry certification exam.

Graduates are also eligible to enrol in Year 2 of the Power Engineering Technology program, based on seat availability (note: Power Engineering Technology is currently a high-demand program).

Career Opportunities

Graduates are prepared to work as power engineers or process operators in a variety of industrial and heating plants. These include utility (power) plants, refineries, hospitals, pulp and paper mills, breweries, mines, gas processing plants, heavy oil upgraders, fertilizer plants or chemical plants.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx.

Courses

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<td>Basic Electricity 1</td>
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<td>ENGP 103</td>
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<td>Legislation and Codes</td>
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<td>ENGP 179</td>
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<td>Applied Mechanics (Fourth Class)</td>
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<td>ENGP 180</td>
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<td>ENGP 181</td>
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<td>Piping, Valves, Materials and Welding</td>
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<td>ENGP 190</td>
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<td>Boiler and Boiler Systems</td>
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<td>INST 182</td>
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<td>Instrumentation</td>
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<td>MATH 299</td>
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<td>Intermediate Algebra and Basic Trigonometry</td>
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<td>SFTY 172</td>
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<td>Safety</td>
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<td>Communications for Technicians</td>
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<td>THER 185</td>
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<td>Thermodynamics (Fourth Class)</td>
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<td>ENGP 186</td>
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<td>Pumps, Compressors, and Lubrication</td>
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<td>ENGP 187</td>
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<td>Power Lab 2</td>
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<td>ENGP 188</td>
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<td>Plant Operation and Maintenance</td>
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<td>ENGP 191</td>
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<td>Boiler Safety Devices</td>
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<td>PROP 141</td>
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<td>WTER 182</td>
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<td>Water Treatment 1</td>
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<td>WORK 185</td>
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</table>

Power Engineering Technology Diploma

Location

- Saskatoon

Start date

- September

Duration

- 72 weeks
  - (includes two work experiences)

Admission requirements

- Grade 12 with Foundations of Math 30 or Pre-Calculus 30*
- Minimum overall average of 65%
- English Language Requirement

Note

- Effective for 2020/21: Prior to starting lab courses in Year 2 of this program, students must present their 4th Class Technical Safety Authority of Saskatchewan (TSASK) certificate and license.
- Chemistry and Physics are not admission requirements; however, they would be extremely helpful to your success in the program and may be required by some employers as a condition of employment.
- Effective for 2020/21: Accepted applicants are required to provide evidence of a current 2015 WHMIS Globally Harmonized System (GHS) certification within the first month of the program start date. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

*Previous Saskatchewan mathematics requirement also accepted:

- Math B30

Program overview

The world runs on power. Power engineering technologists are in charge of operating and maintaining the complex systems used to operate industrial boilers, pumps, air conditioning and refrigeration systems.
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

systems. Demand for skilled power engineers is growing, opening the door to good jobs in the oil patch, mining, manufacturing, power generation utilities and more.

Saskatchewan Polytechnic is Saskatchewan’s primary provider of power engineering certification. We offer two levels training: the two-year Power Engineering Technology diploma program and the one-year Power Engineering Technician certificate program.

Note: Power Engineering Technology is now subject to the First Qualified/First Admitted admission method. Applications will be accepted beginning October 1, 2019.

Power Engineering Technology is a two-year diploma program offered full time at Saskatchewan Polytechnic Saskatoon campus. You’ll gain knowledge and skills in the operation of power (steam) plants and industrial processes, including:

- air conditioning and refrigeration
- boiler operations (high and low pressure)
- communications
- computer monitoring of plant operations
- controls and instrumentation
- environmental (pollution) management
- equipment checks and maintenance
- plant safety
- pump operations
- water treatment systems

The program combines classroom learning with hands-on labs, power labs, computer simulations and industry work experiences. Graduates are productive on the job from day one—something employers look for when hiring and promoting.

Certification Opportunities

Power engineering is divided into levels of skill and training called classes (First Class is the highest level). You progress from one class to another through a combination of work experience, course completions and rigorous interprovincial exams.

After completing Year 1, you will earn one year of Fourth Class qualifying time credit from the Technical Safety Authority of Saskatchewan (TSASK), and be prepared to challenge:

- TSASK Fourth Class exams, and
- TSASK Refrigeration Engineers exams

After completing semester 3 and 4, you are prepared to challenge TSASK Third Class exams.

Upon successful completion of the diploma program, 9 months of credit will be granted towards work experience for your TSASK 3rd Class. Students who have successfully challenged all TSASK 3rd class exams and are enrolled in semester 5 will be eligible to challenge the TSASK 2nd Class Part A exams.

TSASK certificates are recognized across the country.

Personal study is recommended before you write any industry certification exam.

The Technical Standards and Safety Authority (TSSA) of Ontario website includes a video that provides information about the power engineering industry and training that may be helpful in determining whether this career is right for you. (The program and students shown are not from Saskatchewan Polytechnic).

The TSASK examination fees are:

- Fourth Class - (Year 1) - Two exams at $108 per exam Third Class - (Year 2) - Four exams at $108 per exam Second Class - (Year 2) - Three exams at $216 per exam(3 additional second class exams [Part B] are required after course completion)Refrigeration Engineers (Year 1) - One exam at $108

Are you preparing for third class or second class? Check out these exam prep courses.

Diploma to Degree

Use your diploma to ladder into a mining engineering technology degree at Queen's University in Ontario.

Refer to Frequently Asked Questions for additional information.

Career Opportunities

Power engineering technologists work with large, complex power systems. You could work as a power engineer or process operator in utility (power) plants, refineries, pulp and paper mills, breweries, mines, gas processing plants, heavy oil upgraders, fertilizer plants or chemical plants. You could be responsible for heating, air-conditioning, ventilation and refrigeration systems in commercial, institutional or residential complexes. You can also put your knowledge to work in industrial and mechanical design and sales.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/transfer-credit-to-another-institution.aspx

Courses

Year 1 - Semester 1
Production Line Welding
Applied Certificate

Location
- Delivery is subject to needs assessment.

Start date
- Varies

For more information, contact:
- Janice Matwishyn at Janice.matwishyn@saskpolytech.ca or 306-765-1564
- Gerry Rupchan at Gerry.rupchan@saskpolytech.ca or 306-775-7486

Duration
- 8 weeks

Admission requirements
- Grade 10
- English Language Requirement

Program overview
Production Line Welding is an applied certificate program. It provides the skills needed to perform competently in a high volume, high deposition welding production environment.

This program is delivered off campus through outreach and training for industry.

Upon successfully completing WELD 115 (Gas Metal Arc Welding), you will be eligible to receive credit for WELD 105 (Gas Metal Arc Welding) in the Welding certificate program (offered at Saskatchewan Polytechnic Saskatoon campus, Saskatchewan Polytechnic Moose Jaw campus, Saskatchewan Polytechnic Regina campus and Saskatchewan Polytechnic Prince Albert campus).

Career Opportunities
Graduates may find employment in a shop, on an assembly line or at a construction site in the areas of manufacturing, transportation, distribution and logistics, or food and natural resources.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech...
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

Register online at saskpolytech.ca or call 1-866-467-4278

Courses
METL 114 Heat Treatment of Metals
PRNT 114 Blueprint Interpretation
SFTY 114 Trade Safety
WELD 114 Cutting Processes
WELD 115 Gas Metal Arc Welding

Radiation and Environmental Monitoring Technician Certificate

Location
- Delivery is subject to needs assessment.

Start date
- Varies:

This program is delivered in response to industry demand. A start date is announced once delivery is confirmed.

Duration
- 36 weeks

Admission requirements
- Grade 11 with a minimum grade of 60% in each of English Language Arts 20, Pre-Calculus 20* and Physical Science 20*
- English Language Requirement

*Previous Saskatchewan mathematics and science requirements also accepted:
- Math 20
- Chemistry 20

Program overview
The Radiation and Environmental Monitoring Technician program prepares northern students for employment as entry-level radiation and environmental technicians in uranium mining operations in northern Saskatchewan.

The program is an academic partnership between Saskatchewan Polytechnic and Northlands College, and is offered by Northlands College in La Ronge, Saskatchewan.

Upon successful completion of the program, graduates receive a certificate from Saskatchewan Polytechnic.

Career Opportunities
Employment prospects in the uranium mining industry are excellent for graduates who are Northerners.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses
CHEM 160 Introduction to Underground Mining
CHEM 189 Radiation Safety, Measurement, and Protection
CHEM 192 Industrial Chemistry
COM 180 Technical Communications
COMP 192 Computer Fundamentals 1
COMP 280 Computer Fundamentals 2
ENVR 181 Sampling Techniques
ENVR 184 Environmental Science 1
ENVR 280 Environmental Science 2
ENVR 281 Water Treatment & Distribution
MATH 298 Applied Mathematics
MGMT 190 Statistics
QC 191 Quality Assurance and Control
WORK 196 Work Experience

Underground Mining Core Certificate

Location
- Delivery is subject to needs assessment.

Start date
- Varies

Program delivery depends on industry demand. For information regarding program dates and registration, contact Northlands College. For all other inquiries, contact Richard
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

Long at richard.long@saskpolytech.ca or 306-659-4326 (Saskatoon).

Duration
- Total training time 780 hours
  - The program operates on a seven day-in/day-out shift rotation.
  - You will receive 60 hours of training per seven day-in rotation (the equivalent of two training weeks) delivered in a community setting.

Admission requirements
- 18 years old (to meet CNSC regulations)
- Grade 10
- Industry may stipulate other admission requirements consistent with industry standards
- English Language Requirement

Note
Standard First Aid and CPR Heartsaver " A" AED (FAID 1001) is not a requirement to graduate from the program but it is offered as part of the program to satisfy safety and due diligence.

Program overview
The mining industry in Northern Saskatchewan is facing a shortage of skilled underground mine workers. To help develop a homegrown mining labour force, Saskatchewan Polytechnic has partnered with mining companies and Northlands College to offer three innovative programs: Underground Mining Core, Underground Mining Raise Boring and Underground Mining Shaft Operations.

Underground Mining Core is the introductory program. If you’re interested in working in Northern Saskatchewan’s mining industry, this is your starting point.

Mining can be a physically demanding career. You need to be comfortable working around heavy machinery and equipment; you also need to be comfortable working underground. But the biggest key to success is a commitment to safety.

Underground Mining Core is a certificate program that provides basic entry-level skills in mine safety and radiation safety. The program is offered in rural or remote communities as well as at operating mine sites in Northern Saskatchewan.

You’ll learn about the mining industry and key stages in the mining process: exploration, development, production and decommissioning. You’ll also learn about:
- roles and responsibilities of employees and employers
- 7 days-in/7 days-out shift rotations at fly-in mine sites
- workplace conditions
- mining equipment
- operating procedures
- preventative maintenance procedures
- underground mining processes (drilling, blasting and ore movement)
- certified training required by the Canadian Nuclear Safety Commission (CNSC) and Saskatchewan Occupational Health and Safety

Career Opportunities
Earning an Underground Mining Core certificate prepares you for entry-level positions with mining companies and contractors in Northern Saskatchewan. With additional experience and training, you can advance to become a development or production miner.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

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<td>Ground Control 1</td>
</tr>
<tr>
<td>GEOL 146</td>
<td>Ground Control 2</td>
</tr>
<tr>
<td>JOBS 125</td>
<td>Essential Job Skills</td>
</tr>
<tr>
<td>MINE 141</td>
<td>Mine Ventilation 1</td>
</tr>
<tr>
<td>MINE 142</td>
<td>Manual Drilling 1</td>
</tr>
<tr>
<td>MINE 143</td>
<td>Blasting Methods 1</td>
</tr>
<tr>
<td>MINE 144</td>
<td>Ore Movement 1</td>
</tr>
<tr>
<td>MINE 153</td>
<td>Introduction to Radiation Safety</td>
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<td>MINE 155</td>
<td>Mine Ventilation 2</td>
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<td>MINE 156</td>
<td>Manual Drilling 2</td>
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<td>MINE 157</td>
<td>Blasting Methods 2</td>
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<td>MINE 159</td>
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<tr>
<td>WORK 148</td>
<td>Work Experience 2</td>
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</table>

Underground Mining Raise Boring Certificate

Location
School of Mining, Energy and Manufacturing
SASK POLYTECH Programs

- Delivery is subject to needs assessment.

Start date
- Varies

Program delivery depends on industry demand. For information regarding program dates and registration, contact Northlands College. For all other inquiries, contact Richard Long at richard.long@saskpolytech.ca or 306-659-4326 (Saskatoon).

Duration
- 45 weeks

Admission requirements
- Grade 10
- English Language Requirement

Program overview
If you’re already working in Northern Saskatchewan’s mining industry, Saskatchewan Polytechnic’s Underground Mining Raise Boring program can provide the training you need to advance into production jobs.

The program is industry driven, meaning it is delivered at northern mine sites by mining companies to employees.

Underground Mining Raise Boring is a 45-week certificate program offered in partnership with Northlands College and mining companies working in Northern Saskatchewan. The industry-driven program is specially designed to prepare you to work as a Raise Bore Operator in a Northern Saskatchewan mine.

You’ll receive instruction and training in the concepts and procedures associated with operating a raise bore machine in a safe and efficient manner. You’ll receive a certificate from Saskatchewan Polytechnic upon successful completion of the program.

Career Opportunities
When you graduate, you’ll have the necessary training and skills to work in entry-level positions in hard rock underground service and development. You could work directly for a mining company or for a mining contractor.

Transfer Credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<tr>
<td>EQPT 104</td>
<td>Raise Bore Drill Parts</td>
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<td>EQPT 105</td>
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<td>EQPT 107</td>
<td>Equipment Setup and Takedown</td>
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<td>MINE 100</td>
<td>Raise Bore Drilling Process</td>
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<td>MINE 101</td>
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<td>MINE 102</td>
<td>Reaming the Raise</td>
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<td>MINE 103</td>
<td>Maintenance and Testing Procedures</td>
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<td>MINE 104</td>
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<td>MINE 105</td>
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<td>Introduction to Mining Safety</td>
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<td>Introduction to Mining Industry</td>
</tr>
<tr>
<td>WORK 144</td>
<td>Work Experience 1</td>
</tr>
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</table>

Underground Mining Shaft Operations Certificate

Location
- Delivery is subject to needs assessment.

Start date
- Varies

Program delivery depends on industry demand. For information regarding program dates and registration, contact Northlands College. For all other inquiries, contact Richard Long at richard.long@saskpolytech.ca or 306-659-4326 (Saskatoon).

Duration
- 23 weeks

Admission requirements
- Grade 10
- English Language Requirement
Program overview
If you’re already working in Northern Saskatchewan’s mining industry, Saskatchewan Polytechnic’s Underground Mining Shaft Operations program can provide the training you need to advance into production jobs.

The program is industry driven, meaning it is delivered at northern mine sites by mining companies.

Underground Mining Shaft Operations is a 23-week certificate program offered off campus at northern mine sites in partnership with Northlands College.

The program will prepare you to work as a deck person, cage tender, skip tender and shaft inspector at underground mining operations. You’ll receive a certificate from Saskatchewan Polytechnic on successful completion of the program.

Career Opportunities
When you graduate, you’ll have the necessary training and skills to work in entry-level positions in hard rock underground service and development. You could work directly for a mining company or for a mining contractor.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Welding Certificate

Location
- Moose Jaw
- Prince Albert
- Regina
- Saskatoon

Start date
- September

Duration
- 34 weeks

Admission requirements
- Grade 10
- English Language Requirement

Program overview
If you’re interested in a hands-on trade, check out Saskatchewan Polytechnic’s Welding program. We’ll get you started on a career that offers a lot of options, great mobility and excellent pay.

Welders are in high demand—in oil and gas, mining, manufacturing and construction. You need to be good with your hands and enjoy working with tools. You also need to be a problem-solver and a team player who’s able to follow instructions.

Welding is a one-year certificate program offered at all four Saskatchewan Polytechnic campuses in Moose Jaw, Prince Albert, Regina and Saskatoon. Build knowledge and skills in operating welding equipment and performing basic welding operations. You’ll get hands-on instruction in:

- cutting processes
- gas metal arc, gas tungsten arc, shielded metal arc welding
- general shop practice and shop safety
- operating fabrication equipment
- oxy/acetylene fusion welding
- quality assurance
- using blueprints

Our Shop is Your Classroom
You’ll spend 75% of your time in Saskatchewan Polytechnic’s well-equipped shops learning from highly qualified instructors. You’ll learn to work on your own and as part of a team. You’ll also develop...
the quality assurance and shop safety practices employers look for when recruiting apprentices.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Get More Information

If you are interested in welding, consider attending an information evening presented by Sask Polytech and the Canadian Welding Association Regina Chapter on April 16, 2019.

Career Opportunities

When you graduate, you'll have the skills you need to do basic welding fabrication and repair. Skilled welders are in demand in many industries, including oil and gas, construction, mining, manufacturing, fabrication and transportation. Look for jobs in repair shops, with fabrication companies, at mine and mill sites, in manufacturing and processing plants, in oil refineries and more.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>COMM 127</td>
<td>Fundamental Communication Skills</td>
</tr>
<tr>
<td>EQPT 103</td>
<td>Fabrication Equipment</td>
</tr>
<tr>
<td>MATH 125</td>
<td>Welding Mathematics</td>
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<tr>
<td>METL 100</td>
<td>Metallurgy and Heat Treatment of Metals</td>
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<tr>
<td>PRNT 101</td>
<td>Print Reading</td>
</tr>
<tr>
<td>PROJ 102</td>
<td>Shop Projects</td>
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<td>QC 100</td>
<td>Quality Assurance</td>
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<td>SFTY 103</td>
<td>Welding Safety</td>
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<td>WELD 103</td>
<td>Oxy-Acetylene Welding</td>
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<td>WELD 104</td>
<td>Cutting Processes</td>
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<tr>
<td>WELD 105</td>
<td>Gas Metal Arc Welding</td>
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<td>WELD 106</td>
<td>Gas Tungsten Arc Welding</td>
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<td>WELD 107</td>
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<td>WELD 108</td>
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<td>WELD 109</td>
<td>Shielded Metal Arc Welding 3</td>
</tr>
<tr>
<td></td>
<td>Optional Course: PRAC 184 Work Experience</td>
</tr>
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</table>

Welding Applied Certificate

Applied Certificate

Location
- Regina

Start date
- September 3, 2019 - January 31, 2020 (Regina)
- January 13, 2020 - June 5, 2020 (Regina)

Duration
- 20 weeks

Admission requirements
- Grade 10
- English Language Requirement

Program overview

If you're interested in a hands-on trade, check out Saskatchewan Polytechnic's Welding Applied Certificate program. We'll get you started on a career that offers a lot of options, great mobility and excellent pay.

Welders are in high demand—in oil and gas, mining, manufacturing and construction. You need to be good with your hands and enjoy working with tools. You also need to be a problem-solver and a team player who's able to follow instructions.

Welding Applied Certificate is a 20-week program offered at Sask Polytech’s Regina campus. Build your knowledge and skills in operating welding equipment and performing basic welding operations. You'll get hands-on instruction in:

- general shop practice and shop safety
- oxy/acetylene fusion welding
- cutting processes
- gas metal arc welding
- shielded metal arc welding

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

To apply

Register online at saskpolytech.ca or call 1-866-467-4278
Contact Janice Matwishyn at janice.matwishyn@saskpolytech.ca or 306-765-1564 for an application.

Career Opportunities

Graduates may find employment in refineries, construction, pulp and paper mills, manufacturing or processing plants, mines or repair shops.

Trade time and academic credit may be available for graduates who find employment in the trade and register as apprentices. Please contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) for further information.

Transfer credit

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<td>Metallurgy and Heat Treatment of Metals</td>
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<td>PRNT 114</td>
<td>Blueprint Interpretation</td>
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<td>Trade Safety</td>
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<td>WELD 104</td>
<td>Cutting Processes</td>
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<td>WLDR 121</td>
<td>Gas Metal Arc Welding 1</td>
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<td>WLDR 122</td>
<td>Gas Metal Arc Welding 2</td>
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<td>WLDR 123</td>
<td>Oxy-Welding</td>
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<td>WLDR 124</td>
<td>Shielded Metal Arc Welding 1</td>
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<td>WLDR 125</td>
<td>Shielded Metal Arc Welding 2</td>
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<td>WLDR 126</td>
<td>Shielded Metal Arc Welding 3</td>
</tr>
<tr>
<td>WORK 113</td>
<td>Work Experience</td>
</tr>
</tbody>
</table>
BioScience Technology
Diploma

Location
• Saskatoon

Start date
• September

Duration
• 76 weeks

Admission requirements
• Grade 12 with a minimum of 65% in each of the following subjects: Chemistry 30, Biology 30 and Pre-Calculus 30
• A combined average of 65% is required in English Language Arts A30 and English Language Arts B30
• English Language Requirement

Note
• Accepted applicants may be required to provide evidence of a Criminal Record Check prior to entering the practicum component of the program. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check. The cost of the Criminal Record Check is your responsibility.
• To comply with safety regulations, students who wear contact lenses must have a pair of prescription glasses to wear in the labs.

*Previous Saskatchewan mathematics requirement also accepted:
• Minimum of 65% in Math B30

Program overview
Bioscience technologists use applied science to research problems and develop solutions to some of life’s many important questions, ranging from food safety to new medicines.

Saskatchewan Polytechnic’s BioScience Technology program (formerly Biotechnology) is a two-year diploma program that emphasizes a hands-on style of learning. Your classroom time includes theory, practical exercises and labs. A four-week practicum gives you on-the-ground experience working in a laboratory, so at the end of your program you’re ready for the workplace.

The program is designed to give you a strong foundation in both scientific principles and analytic practices. The emphasis is on developing your lab skills to prepare you for work in the biosciences, biomedical research and applied research fields.

You’ll develop the skills you need to:
• analyse DNA, RNA and protein samples
• follow good laboratory practices (GLP) guidelines
• handle and prepare laboratory chemicals
• organize and supervise laboratory activities
• record, process and report data
• use analytical instruments
• work with plants and animals in a research setting
• work with microorganisms

Did You Know?
Technology Accreditation Canada (TAC) accredits the program at the Technologist level.

TAC is a bold, world class accreditation organization, delivering accreditation services for the engineering technology and applied science profession in Canada.

After two years of suitable industrial experience, Saskatchewan Polytechnic graduates are eligible to apply for membership with the Saskatchewan Applied Science Technologists and Technicians (SASTT).

You can also use your diploma as a stepping stone to a university degree - receive up to two years' university transfer credits to continue your post-secondary education in biosciences.

How Does it Fit?
Working in the biosciences involves detail-oriented and meticulous laboratory work. It also requires an open mind, an aptitude for problem solving and the ability to think on your feet. Bioscience technologists are members of multidisciplinary teams, so communication, interpersonal and team-building skills are an asset.

The BioScience Technology program works with industry partners to grow the bioscience industry in Saskatchewan. Saskatoon is host to over 30 biotechnology related companies and has great community, provincial and federal support. Sask Polytech students are hired by many of these local companies. The License to Farm documentary explores the role of science, sustainability and food safety in modern agriculture. License to Farm is brought to you by
School of Natural Resources and Built Environment
SASK POLYTECH Programs


Ladder into a Degree

Turn your BioScience Technology diploma into a university degree in just two years. Saskatchewan Polytechnic has a transfer agreement with the University of Saskatchewan. You can also transfer into programs at Athabasca University (Alberta), Memorial University (Newfoundland) and Royal Roads University (B.C.).

Learning Environment

- 24 students are accepted each year. Find out more about books and supplies.
- Students will experience laboratory work, lectures and a practicum work term.
- Class hours are 25 to 27 hours per week. Students can expect to complete 30-40 hours of homework each week outside of class time.
- There is a capstone group project that requires coordination.
- Students are involved in their practicum selection and location

Career Opportunities

The biosciences are an exciting and rapidly expanding field with plenty of job opportunities. Saskatchewan Polytechnic’s BioScience Technology program trains highly qualified lab technologists to work in the agricultural biosciences, biomedicine, bioproduct and environment sectors of the Saskatchewan biosciences industry.

Saskatchewan Polytechnic BioScience Technology grads are working for agriculture bioscience companies, private research and development laboratories, university research labs, provincial and federal laboratories, food manufacturing companies (quality analysis of dairy, meat and brewery products, etc.) and bioscience equipment and supply companies.

Agriculture Biosciences

Graduates employed in this sector are involved in research and development of agricultural crops such as wheat, canola and specialty crops. The work focuses on plant breeding, molecular biology and plant tissue culture. Other aspects may include testing of plant and animal samples using instrumentation, working with animals in the area of animal disease, testing for microbial or contaminants in animals or animal products, feed analysis and cell culture.

Biomedicine

Graduates employed in this sector are involved in research into diseases such as Alzheimer's and types of cancer. Work includes microbiology, molecular biology, cell culture, and may include instrumentation. Other aspects of research may involve working with animals or animal products.

Bioproducts

Graduates employed in this sector are involved in processing and production of bioproducts such as specialty oils, proteins and foods. The work includes aspects of quality control and quality assurance. It involves testing food and other products for quality, and may include standard tests for microbial contamination and other impurities. This may require basic microbial techniques or the use of analytical instruments.

Environment

Graduates employed in this sector conduct analysis of environmental samples and environmental remediation. The work includes aspects of microbiology, chemistry, molecular biology and analytical instrumentation. It involves testing environmental samples from the mining, chemical and oil and gas industries, as well as development of new techniques or solutions for environmental remediation.

Transfer credit

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Courses

Year 1 - Semester 1
ANAT 183 Vertebrate Anatomy and Physiology
ANAT 184 Vertebrate Anatomy and Physiology Lab
ANIM 182 Care and Management of Laboratory Animals
BOTA 183 Botany
BOTA 184 Botany Lab
CHEM 171 General Chemistry
CHEM 172 General Chemistry Lab
MATH 178 Mathematics 1
SAFE 180 Laboratory Safety

Year 1 - Semester 2
CHEM 173 Analytical Chemistry
CHEM 174 Analytical Chemistry Lab
CHEM 287 Organic Chemistry
GENE 181 Genetics
PYSL 180 Plant Physiology
PYSL 181 Plant Physiology Lab
QC 179 Quality Assurance and Control
STAT 181 Introductory Statistics and Computer Applications 1

Year 1 - Semester 3

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020
School of Natural Resources and Built Environment
SASK POLYTECH Programs

BIJC 281  Biochemistry
IMMU 179  Immunology
MATH 278  Mathematics 2
TCOM 102  Workplace Communication

Year 2 - Semester 4
GENE 285  Molecular Biology 1
GENE 286  Molecular Biology 1 Lab
HSTC 183  Histotechniques
LABT 182  Laboratory Preparation Techniques 1
LABT 288  Analytical Instrumentation 1
LABT 289  Analytical Instrumentation 1 Lab
LABT 290  Plant Tissue Culture Lab
LABT 291  Animal Cell Culture Lab
MICR 282  General Microbiology 1
MICR 283  General Microbiology 1 Lab

Year 2 - Semester 5
COMM 289  Communications 2
GENE 287  Molecular Biology 2
GENE 288  Molecular Biology 2 Lab
LABT 283  Laboratory Preparation Techniques 2
LABT 292  Analytical Instrumentation 2
LABT 293  Analytical Instrumentation 2 Lab
MICR 284  Applied Microbiology
MICR 285  Applied Microbiology Lab
STAT 286  Statistics and Computer Applications 2

Year 2 - Semester 6
PRAC 285  Laboratory Practicum

Basic theoretical courses complement more advanced technique-oriented courses where emphasis will be placed on your competency in laboratory skills. Your practicum consists of working in a private laboratory for four weeks in May. You will not be paid and you must find your own accommodation if you are placed outside of Saskatoon.

Civil Engineering Technologies
(Construction option or Water Resources option)
Diploma

Location
• Moose Jaw

Start date
• September

Duration
• 76 weeks (Construction option or Water Resources option)

• There are two four-month mandatory paid Co-operative Education work terms. Semesters and co-op work term time patterns are listed in Courses below.

Admission requirements
• Grade 12 with Pre-Calculus 30
• Previous: Grade 12 with Math A30, B30 and C30
• English Language Requirement

Program overview

Civil Engineering Technologies is a 27-month diploma program offered full time at Saskatchewan Polytechnic Moose Jaw Campus. It includes five academic semesters and two four-month consecutive Co-operative Education work terms. The program offers two options: Construction and Water Resources. The first two semesters are common to both disciplines. You will build skills in:

• Surveying
• Computer applications and modelling
• Communications
• Materials analysis and testing procedures and protocols
• Hydraulics
• Project Management
• Municipal infrastructure

Students select their option after successfully completing the second semester. Thirty-six students will be accepted into the Construction option and twenty students will be accepted into the Water Resources option. If the number of students desiring either option is more than the available seats, a competitive entry process will be utilized based on student performance in the first two semesters.

In semesters three, four and five, you will focus on your chosen option. In Construction, you will develop well-rounded knowledge and skills in:

• Geotechnical Engineering (soils investigations and earthworks projects, etc.)
• Pavement design
• Structures (steel, timber, reinforced concrete)
• Transportation

In Water Resources, your studies will focus on:

• Meteorological and hydrometric data collection and analysis
• Water chemistry
• River engineering
• Hydrology
• Watershed Management
• Water supply and flood and drought management
• Water quality management
The emphasis on hands-on learning means you’ll spend a lot of your time in labs and on field assignments. You will participate in field and survey camps, practical assignments, and carry out applied research and other projects.

The Co-op Work Term Advantage

Co-operative work terms are paid, so you'll earn while you learn. Saskatchewan Polytechnic arranges your interviews; it's up to you to shine. It's also a chance to develop important "soft skills" in job interviewing, professional attitude, interpersonal communication and more.

Many of our co-op employers require both a valid Saskatchewan Driver's Licence and a clean Driver's Abstract. For international students, it can take up to 12 months to obtain a Driver's licence; therefore, it is to your advantage to come with a Driver's Licence from your home country if possible.

Some opportunities require a Criminal Record Check and/or drug and alcohol testing.

Nationally Recognized Credential

Technology Accreditation Canada (TAC) accredits the program at the Technologist level.

TAC is a bold, world class accreditation organization, delivering accreditation services for the engineering technology and applied science profession in Canada.

Diploma to Degree Civil Engineering Technologies: Construction

Use your diploma to ladder into the Bachelor of Construction Management right here at Saskatchewan Polytechnic or into external engineering degree bridging program at Camosun College in British Columbia, an engineering degree at Lakehead University in Ontario, a degree in Construction Management in Calgary or a technology degree at Memorial University in Newfoundland or Queen’s University in Ontario.

Civil Engineering Technologies: Water Resources

Use your diploma to ladder into the Bachelor of Construction Management right here at Saskatchewan Polytechnic or into external engineering degree at the University of Regina, an applied science degree at Lakeland College in Alberta, an environmental science or environmental management degree at Royal Roads University in British Columbia, or a technology degree at Memorial University in Newfoundland or Queen’s University in Ontario.

Learning Environment

- Thirty-six Construction and 20 Water Resources students are accepted each year.

- Students will experience laboratory and project work, lectures and co-operative work terms.
- Class hours are 8:30 a.m. to 4:30 p.m. daily. Students are expected to complete 30 to 40 hours of homework each week outside of class time.
- There are many group projects that require coordination.
- It is very important that students take initiative and manage their work time effectively.

Career Opportunities

Civil Engineering Technologies: Construction

Saskatchewan Polytechnic graduates are working as civil engineering design technologists, traffic technologists, building inspectors, materials testing technologists, estimators and project coordinators. Potential employers include rural and municipal governments, provincial highway departments, consulting engineering firms, construction companies, research organizations, mining companies, telecommunication and transportation companies, power utilities and more.

Civil Engineering Technologies: Water Resources

Engineering Technologists with a specialty in Water Resources are in high demand. Potential employers include provincial and federal governments, research laboratories, inspection agencies, environmental agencies, engineering firms, consulting companies, industrial plants, and hydroelectric utilities. Upon graduation, you will be qualified to work as an engineering technologist, project manager, environmental protection officer (EPO), compliance officer, lab supervisor, lab technologist, hydraulics/hydrology technologist or a water analyst.

Transfer credit

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Courses

Year 1 - Semester 1

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<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DRFT</td>
<td>Computer Aided Drafting (CAD)</td>
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<tr>
<td>MAT</td>
<td>Applied Technical Mathematics</td>
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</tr>
<tr>
<td>MEAS</td>
<td>Analytical Measurements</td>
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<td>SEM</td>
<td>Technology Seminars</td>
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<td>SRVY</td>
<td>Surveying 1</td>
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<tr>
<td>TCOM</td>
<td>Workplace Communication</td>
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<tr>
<td>TERR</td>
<td>Engineering Geology</td>
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<tr>
<td>TERR</td>
<td>Engineering Geology Laboratory</td>
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</tbody>
</table>

Year 1 - Semester 2

Register online at saskpolytech.ca or call 1-866-467-4278  Sask Polytech Calendar 2019-2020 176
### Environmental Engineering Technology Diploma

**Location**
- Moose Jaw

**Start date**
- September
- For more information, contact the program head at Kaya.Forest@saskpolytech.ca

**Duration**
- 80 weeks:
  - There are five academic semesters and three mandatory paid Co-operative Education work terms. Semesters and co-op work term time patterns are listed in Courses below.

**Admission requirements**
- Grade 12 with Pre-Calculus 30*
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:
- Math A30, B30 and C30

**Program overview**

Environmental engineering technologists are on the front lines of environmental protection. You apply science, ecology and engineering to minimize the adverse impacts of human activity on the natural world. You will develop the skills to apply engineering and technology solutions to real world environmental issues.

At Saskatchewan Polytechnic, you’ll learn the applied science behind environmental protection. When you graduate, you’ll have the skills to work in pollution monitoring, environmental audits, environmental management, site assessment and remediation, project management and waste management.
The Environmental Engineering Technology program is a 32-month diploma offered full time at Saskatchewan Polytechnic Moose Jaw campus. You will take five academic semesters and participate in three Co-operative Education work terms (two consecutive terms after first year, and one term in the summer of second year).

The well-rounded curriculum includes:

- environmental impact evaluation and mitigation
- environmental monitoring and control, and data collection and analysis
- environmental site assessment and remediation
- ecology, aquatic chemistry, hydrology and hydrogeology
- atmospheric quality and monitoring
- soil analysis and classification
- solid and liquid waste management
- surveying and drafting
- computer applications and modeling
- technical report writing

Your learning time is 60 per cent in the classroom and 40 per cent in labs, field camps and activities and projects. You’ll build practical skills that ensure you are job ready on graduation.

The Co-op Work Term Advantage

Co-operative work terms are paid, so you’ll earn while you learn. Saskatchewan Polytechnic arranges your interviews; it’s up to you to shine. It’s also a chance to develop important “soft skills” in job interviewing, professional attitude, interpersonal communication and more.

Many of our co-op employers require both a valid Saskatchewan Driver’s Licence and a clean Driver’s Abstract. For international students, it can take up to 12 months to obtain a Driver’s Licence; therefore, it is to your advantage to come with a Driver’s Licence from your home country if possible.

Some opportunities require a Criminal Record Check and/or drug and alcohol testing.

Diploma to Degree

Use your diploma to ladder into an applied science degree at Lakeland College in Alberta, an environmental science or environmental management degree at Royal Roads University in British Columbia or a technology degree at Memorial University in Newfoundland.

Career Opportunities

Jobs in environmental engineering technology can involve environmental monitoring and assessment, pollution control, site remediation and reclamation, environmental audits and impact assessments, construction and design, research, technical sales and support for waste management. You could work in an office or a field setting, as part of a team or independently. Potential employers include engineering firms, environmental consultants, utilities, municipalities, government agencies and non-governmental organizations.

Transfer credit

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<td>ENVR 101</td>
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<td>GIS 110</td>
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<td>MAT 111</td>
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<td>SOIL 102</td>
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<td>TCOM 103</td>
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</table>

Co-operative Work Term

COOP 101 - Co-operative Work Term

Year 2 - Semester 3

| CHEM 200 | Engineering Chemistry |
| ENV R 234 | Environmental Ecology 1 |
| ENV R 236 | Environmental Monitoring |
| HYDO 201 | Groundwater Technology |
| LABS 202 | Environmental Laboratory Analysis |
| PHYS 102 | Applied Physics |
| STAT 201 | Statistics for Engineering Technology |

Co-operative Work Term

COOP 301 - Co-operative Work Term

Year 3 - Semester 4

| CAMP 204 | Environmental Field Work 2 |
| CHEM 201 | Environmental Chemistry |
| ENV R 200 | Atmospheric Environment |
| ENV R 203 | Liquid and Solid Waste Management |
| ENV R 205 | Environmental Site Assessment 2 |

Register online at saskpolytech.ca or call 1-866-467-4278
### Geographic Information Science Certificate

**Location**
- Prince Albert

**Start date**
- September

**Duration**
- 32 weeks

**Admission requirements**
- Grade 12
- Minimum 65% average in English Language Arts A30 and English Language Arts B30 (combined)
- Minimum 60% in Workplace and Apprenticeship Math 30 or 60% in Foundations of Math 30 or 60% in Pre-Calculus 30*
- English Language Requirement

**Note**
- Computer literacy is recommended.

*Previous Saskatchewan mathematics requirement also accepted:
- Minimum combined average of 60% in Math A30 and B30

**Program overview**

Geographic information science (GIS) is a relatively new field that uses computer technology to link maps to digital data. Environmental agencies and resource companies rely on the skills of GIS technicians when they’re making critical decisions about the development and use of forests, fisheries, wildlife and land.

If you have good computer skills, a keen eye for detail and an interest in natural resource management and land use planning, the Geographic Information Science program will interest you. Even better, you can launch your career in less than a year.

Geographic Information Science is a one-year certificate program offered full time at Saskatchewan Polytechnic Prince Albert campus. Some courses are available through distance and/or continuing education. Computer literacy is essential to handling the course load.

The resource management focus is unique. You’ll learn the concepts, practice the applications and build basic skills in using GIS software to address natural resource management issues. In this hands-on approach to using GIS software and technologies you’ll learn about:

- UAV/Drone data acquisition interpretation and process
- GIS process automation
- Database and worksheet design
- Global Positioning Systems (GPS)
- Web mapping and web cartography
- Remote sensing and image analysis

**Learn by Doing**

Your training will include hands-on learning, field experience and an applied research project, where you’ll have the opportunity to work on a resource management-related project. When you graduate, you’ll have much more than a textbook understanding of GIS theory—you’ll have actual experience using GIS and applying it in different situations.

**GIS vs. GPS**

Geographic information science (GIS) is often confused with global positioning systems (GPS) because of the similar initials. The difference is that GIS uses GPS to help navigate data and display very complex processes that need a geographic component, such as where things are.

**Career Opportunities**

Saskatchewan Polytechnic has an excellent track record when it comes to getting grads into jobs: 80% of GIS grads are working in their field within six months of graduation. They work as GIS mapping technicians, GIS specialists, mapping cartographers, GPS operators, data analysts or remote sensing analysts. With your specialized training in applying GIS to resource management, you can explore job opportunities with a wide variety of potential employers, including natural resource-based industries, First Nations industries, consulting firms, environmental agencies, government departments and municipal agencies.
## Transfer credit

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## Courses

### Semester 1

- COMP 174: Introduction to Microsoft Excel 1
- COMP 175: Introduction to Microsoft Excel 2
- COMP 176: Introduction to Microsoft Access 1
- GIS 101: Geographic Information Systems 1
- GIS 102: Introduction to ArcGIS
- GIS 103: Data Input for Geographic Information Systems (GIS)
- GIS 104: Introduction to Python
- GIS 107: Geographic Information Systems (GIS) Hardware and Hardware Resources
- GIS 363: Basic Statistics and Geostatistics
- GIS 401: Geographic Information Systems 2
- MAPS 101: Introduction to Mapping and Compassing

### Semester 2

- GIS 105: Vector Analysis
- GIS 108: Unmanned Aerial Vehicle (UAV) Data Processing
- GIS 109: Unmanned Aerial Vehicle (UAV) Data Processing
- GIS 302: Introduction to Mobile Geographic Information Systems (GIS)
- GIS 361: Raster Analysis
- GIS 362: Three-Dimensional Analysis
- MAPS 301: Cartography
- MAPS 302: Geographic Information Systems (GIS) and the Internet
- PROJ 287: Project Management
- SYST 401: Remote Sensing 1
- SYST 402: Remote Sensing 2

## Start date

- September

## Duration

- 70 weeks

## Admission requirements

- Grade 12
- Minimum 65% average in English Language Arts A30 and English Language Arts B30 (combined)
- Minimum 60% in Workplace and Apprenticeship Math 30 or 60% in Foundations of Math 30 or 60% in Pre-Calculus 30*
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:

- Minimum combined average of 60% in Math A30 and B30

## Note:

- It is recommended that students entering the program have basic skills in Microsoft Word and Excel.
- For employment purposes, graduates may be required to obtain First Aid certification. Students will be offered the First Aid course FAID 1001 at the beginning of their program.

## Program overview

Saskatchewan’s natural resources are rich and varied—fisheries, forests, wildlife and park areas. Integrated resource management (IRM) takes a balanced approach to managing these resources. The focus is on sustainability and stewardship. Integrated resource management practitioners are analytic thinkers who combine a knack for science with a love of the outdoors. It’s an excellent career choice if you want to play a role in sustainable silviculture (forestry management), fisheries (fish farms) or park management.

Integrated Resource Management is a two-year diploma program that gives you a unique perspective on balancing the environmental, economic and social factors of natural resource development. The program emphasizes hands-on learning through labs, camps, field exercises and work experience. You’ll learn how to collect and analyze data, enforce regulations and monitor resource use. You’ll develop knowledge and skill in:

- air-photo use and interpretation
- applying Global Positioning Systems (GPS) and Geographical Information Systems (GIS) to resource management situations

## Integrated Resource Management Diploma

### Location

- Prince Albert
• applying statistics to resource management problems
• fish, wildlife, forestry and parks management
• implementing quality control
• mapping, compassing and remote sensing
• operating and maintaining vehicles, boats and all-terrain vehicles
• research design, analysis and technical reporting
• surviving in the wilderness

You’ll graduate with hands-on experience and receive additional certificates in First Aid, ATV and snowmobile operation, etc. that make you job ready.

Get Your Feet Wet and Hands Dirty

Field camps are a popular part of Saskatchewan Polytechnic’s Natural Resources programs. We have our own outdoor camp on the north side of Candle Lake. You’ll spend three weeks here in the fall learning a variety of hands-on skills. You’ll return for winter camp to learn about winter ecology and outdoor survival. You’ll also participate in a unique grasslands camp in southern Saskatchewan.

Diploma to Degree

Ladder your Integrated Resource Management diploma into a degree at the University of Regina (Bachelor of Science in Environmental Biology), University of Saskatchewan (Bachelor of Science in Agriculture or Bachelor of Science in Renewable Resource Management) or Lakeland College (Bachelor of Applied Science in Environmental Management).

Career Opportunities

Career choices for Integrated Resource Management graduates are excellent. You could work as a fish and wildlife technician, forestry technician, plant specialist or park ranger across Western and Northern Canada. You might work for conservation authorities, First Nation communities, forestry companies, exploration and resource companies, government agencies, municipalities, private contractors and many more.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<td>ENVR 101: Environmental Science and Technology 1</td>
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<td>CAMP 102: Winter Camp</td>
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<td>CAMP 305: Winter Aquatic Surveys</td>
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<td>COM 106: Technical Report Writing</td>
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<td>FEMT 301: Botany</td>
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<td>FIRE 101: Wildland Fire Fundamentals</td>
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<td>FISH 301: Aquatic Ecology</td>
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<td>FORE 400: Advanced Forestry</td>
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<td>SFTY 106: Wilderness Survival</td>
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<td>STAT 122: Introductory Statistics</td>
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<td>WILD 101: Ecology, Biology and Management of Saskatchewan Wildlife</td>
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<td>WILD 304: Wildlife Management Field Techniques</td>
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<td>WILD 309: Wildlife Habitat Assessment</td>
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<td>CAMP 412: Aquatic Field Surveys</td>
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<td>CAMP 415: Natural Resources Field Technician-Forestry</td>
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<td>CAMP 416: Natural Resources Field Technician-Wildlife</td>
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<td>FISH 402: Aquatic Surveys</td>
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<td>FISH 403: Advanced Aquatic Surveys</td>
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<td>FORE 200: Forest Health</td>
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<td>FORE 405: Forest Access Techniques</td>
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<td>STAT 403: Statistics and Statistical Software for Resource Managers</td>
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<td>WILD 404: Wildlife Management Field Techniques</td>
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<td>ENVR 401: Environmental Science and Technology 2</td>
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<td>FISH 404: Fisheries Management</td>
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<td>FISH 405: Current Topics in Fisheries</td>
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<td>HORT 400: Urban Forestry</td>
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<td>PARK 400: Park Programs</td>
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<td>RLAW 105: Indigenous Resource Rights</td>
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<td>SYST 401: Remote Sensing 1</td>
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<td>WILD 405: Wildlife Population Assessment and Regulation</td>
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<td>WILD 406: Assessment of Wildlife Physiological Condition</td>
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Resource and Environmental Law

Diploma

Location

Register online at saskpolytech.ca or call 1-866-467-4278  Sask Polytech Calendar 2019-2020 181
Prince Albert

Start date

September

Duration

70 weeks

Admission requirements

- Grade 12 with a combined minimum 65% average in English Language Arts A30 and English Language Arts B30 (combined), and a minimum of 60% in Workplace and Apprenticeship Math 30 or 60% in Foundations of Math 30 or 60% in Pre-Calculus 30*  
- A clear Criminal Record Check  
- English Language Requirement

*Previous Saskatchewan mathematics requirement also accepted:

- minimum combined average of 60% in Math A30 and Math B30

Notes:

- It is recommended that students entering the program have basic skills in Microsoft Word© and Excel©.  
- For employment purposes, graduates may be required to obtain First Aid certification. Students will be offered the First Aid course FAID 1001 at the beginning of their program.  
- For employment purposes, graduates may be required to perform the Physical Abilities Requirement Evaluation (PARE).

Program overview

From forestry to tourism, from First Nations to park users—we all enjoy Saskatchewan's natural resources. There are laws and environmental policies in place to ensure the long-term sustainability of our fisheries, forests and wildlife.

If you want to play an active role in ensuring these laws are respected, Resource and Environmental Law will appeal to you. It’s a career that demands a strong belief in what you’re doing, a good understanding of human behaviour and excellent communication skills.

Resource and Environmental Law is a two-year diploma program that specializes in conservation and environmental law enforcement. You’ll develop solid skills in environmental protection, enforcement and investigation. You’ll learn about:

- Indigenous resource rights  
- Canadian criminal justice system  
- control tactics  
- courtroom procedures  
- environmental and field investigations  
- environmental legislation and compliance  
- environmental sampling  
- investigative techniques  
- park services and enforcement  
- wildlife and fisheries management

Hands-on learning is key. You’ll augment classroom learning with lab exercises, simulated field investigations, outdoor camps and work experience. You’ll work with trainers from different government agencies, participate in ride-alongs and more.

Get Your Feet Wet and Hands Dirty

Field camps are a popular part of Saskatchewan Polytechnic’s Natural Resources programs. We have our own outdoor camp on the north side of Candle Lake. You’ll spend three weeks here in the fall learning a variety of skills. You’ll return for winter camp to learn about working in arduous outdoor conditions. Saskatchewan Polytechnic’s excellent camp facilities give you first-hand experience working in the outdoors, from learning how to pull boats over for compliance checks in the summer to ice rescue in the winter.

Are You Up for the Challenge?

Because jobs in environmental law enforcement can be physically demanding, we put Resource and Environmental Law students through the same fitness test as new RCMP recruits.

Diploma to Degree

Turn your diploma into degree. Resource and Environmental Law grads can transfer into the third year of the Bachelor of Arts Resource and Environmental Studies (BARES) program at First Nations University of Canada or the Bachelor of Science in Agriculture (major in Renewable Resource Management) at the University of Saskatchewan.

Career Opportunities

Resource and Environmental Law graduates can choose from a variety of career options. Work in the field as a conservation officer; environmental protection officer; park warden; or fishery, forestry or wildlife officer. Potential employers include environmental agencies, federal and provincial parks, natural resource companies, First Nation communities, even border services or law enforcement agencies.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-saskpolytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-saskpolytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

**Courses**

**Semester 1**
- COM 106 Technical Report Writing
- ENVR 101 Environmental Science and Technology 1
- FORE 102 Introduction to Forestry
- FTNS 100 Fitness 1
- GPS 110 Basics of Global Positioning Systems (GPS)
- MAPS 101 Introduction to Mapping and Compassing
- RLAW 104 Introduction to Resource Legislation
- RSRC 101 Elements of Ecology
- RSRC 103 Forest Ecosystems
- WILD 101 Ecology, Biology and Management of Saskatchewan Wildlife
- WORK 126 Work Preparation

**Semester 2**
- CAMP 102 Winter Camp
- CAMP 305 Winter Aquatic Surveys
- FISH 301 Aquatic Ecology
- FTNS 101 Fitness 2
- RLAW 105 Indigenous Resource Rights
- RLAW 107 Park Enforcement
- RLAW 108 Canadian Criminal Justice 1
- RLAW 109 Canadian Criminal Justice 2
- SFTY 106 Wilderness Survival
- SFTY 300 Firearm Safety
- WILD 301 Wildlife Anatomy and Systematics
- WORK 402 Work Experience

**Semester 3**
- CAMP 402 Natural Resources Field Techniques
- CAMP 413 Resource and Environmental Law Field Techniques
- GIS 101 Geographic Information Systems 1
- RLAW 200 Defense Tactics and Fitness
- RLAW 201 Responsibilities and Authorities
- RLAW 202 Field Investigations 1
- RLAW 203 Field Investigations 2
- RLAW 204 Gathering Evidence 1
- RLAW 205 Gathering Evidence 2
- WILD 411 Wildlife Mgmt Field Techniques

**Semester 4**
- CLTR 119 Indigenous Cultural Awareness
- ENVR 401 Environmental Science and Technology 2
- ENVR 402 Environmental Sampling
- FISH 404 Fisheries Management
- FTNS 200 Fitness 3
- PR 401 Professionalism and Ethics in Law Enforcement
- RLAW 206 Courtroom Procedures 1
- RLAW 207 Courtroom Procedures 2
- RLAW 403 Environmental Legislation and Compliance
- RLAW 406 Environmental Investigation

**Water and Wastewater Technician Certificate**

**Location**
- Online

**Start date**
- Ongoing

For more information, contact Richard Egroff at richard.egroff@saskpolytech.ca or 306-691-8417.

**Duration**
- Self-paced - up to 5 years

**Admission requirements**
- Grade 12

**Program overview**

Saskatchewan requires trained technicians to help ensure the safety of our drinking water, water supply and environment. The Water and Wastewater Technician program is the first step in becoming a certified operator for municipal, industrial, agricultural and recreational water systems.

The program is designed for individuals already working in the field, but is open to anyone wanting to get started. It can be physical work—lifting, bending, walking and climbing ladders—but it also involves monitoring equipment and process monitoring. You could be involved in reservoir operations and lagoon maintenance, chlorination, water treatment, water distribution, wastewater collection and wastewater treatment.

Water and Wastewater Technician is a self-paced certificate program offered on a course-by-course basis. It is offered entirely through distance learning, and administered at Saskatchewan Polytechnic Moose Jaw Campus. You can take up to 5 years to complete the program.

You’ll learn how to meet the demand for water of acceptable quality and quantity for municipal, industrial, agricultural and recreational
use. You'll also learn how to collect and treat wastewater to an acceptable level for discharge. The program includes training in:

- Water treatment;
- Water distribution;
- Wastewater treatment;
- Wastewater collection;
- Communications;
- Computer applications;
- Drafting.

Certification

If you're already working in the field, the program can prepare you to challenge the Saskatchewan Provincial Operator Certification Examinations. The Saskatchewan Polytechnic Water and Wastewater Technician program is accepted as two years of post-secondary education by the Saskatchewan Ministry of Environment, Water Security Agency and Operator Certification Board (OCB) of Saskatchewan. Certification will open doors to more career choices.

Career Opportunities

Most graduates find jobs in municipal water and wastewater treatment plants. In a city, you could be part of a team in a large treatment plant. In a small town, you could be responsible for operating the community's water distribution, wastewater collection and/or water treatment system. Other potential employers include industrial plants, engineering firms, contractors, provincial and federal government agencies, parks and private utility companies.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx)

Courses

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<td>COMP 171</td>
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<td>GRPH 124</td>
<td>Graphical Communications 2</td>
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<tr>
<td>LABS 121</td>
<td>Water and Wastewater Laboratory Principles</td>
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<td>Wastewater Treatment 1</td>
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<td>WTER 137</td>
<td>Wastewater Treatment 2</td>
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Bachelor of Psychiatric Nursing
Degree

Location
- Online

Start date
- Beginning September 16, 2013 for BPN Degree Completion program for Saskatchewan Polytechnic Psychiatric Nursing diploma graduates 2010 and beyond; Beginning January 2014 for BPN Degree Completion program for Psychiatric Nursing graduates prior to 2010. Annual intakes.

Duration
- BPN Degree Completion for Saskatchewan Polytechnic Psychiatric Nursing graduates 2010 and beyond is 2 years; BPN Degree Completion for Psychiatric Nursing graduates prior to 2010 is 2.5 years

Admission requirements

BPN Degree Completion Program for graduates of 2010 and beyond:
- Saskatchewan Polytechnic Psychiatric Nursing program diploma from 2010 and beyond
- Active registration and good standing with the Registered Psychiatric Nurses Association of Saskatchewan or with the psychiatric nurses regulatory body from the province in which the applicant resides

BPN Degree Completion Program for graduates prior to 2010:
- Psychiatric Nursing program diploma received prior to 2010
- Active registration and good standing with the Registered Psychiatric Nurses Association of Saskatchewan or with the psychiatric nurses regulatory body from the province in which the applicant resides

BPN Degree Completion Program for graduates of the Nursing Education Program of Saskatchewan (NEPS):
- Bachelor of Science in Nursing, University of Saskatchewan (NEPS)
- Active registration and good standing with the Registered Psychiatric Nurses Association of Saskatchewan or with the psychiatric nurses regulatory body from the province in which the applicant resides

All BPN Applicants
- Saskatchewan Polytechnic English Language Proficiency (ELP) requirements will apply to students new to Saskatchewan Polytechnic. (Listed below).

English Language Proficiency (ELP) Requirements

English Language Proficiency (ELP) requirements will apply to students new to Saskatchewan Polytechnic. The language of instruction at Saskatchewan Polytechnic is English. All applicants to Saskatchewan Polytechnic must therefore demonstrate an appropriate level of proficiency in the English language. The following will be accepted as satisfactory evidence:

- Canadian and U.S. High Schools: Completion of grades 11 and 12 English, in sequence, as part of two full academic years, in a high school using a provincially- or state-accredited Canadian or U.S. curriculum OR a grade of 80% or better in a grade 12 provincially-examined English course, as part of one full term of study
- English-Language Post-Secondary: Successful completion of at least 24 credit hours in an approved English-language post-secondary institution, including at least six credit hours in humanities or social science subjects and with a grade point average of 60.00% or equivalent
- GCSE/IGCSE/GCE: GCSE/IGCSE/GCE Ordinary Level English, English Language, or English as a Second Language with a minimum grade of ‘B’ or GCE A/AS/AICE Level English or English Language with a minimum grade of ‘C’
- Other Tests: One of the following tests also will be accepted. Test results must be received, by the Admissions Office, directly from the testing service.

In addition to the standard English language proficiency requirements, students who meet the BPN English language requirement via an exam must achieve one of the following exam standards:

- CanTEST: A minimum score of 4.5 in each of Listening, Reading, and Writing and a 5.0 or higher in Speaking
- CAEL: A minimum score of 70 with a minimum sub-score of 70 in Speaking and minimum sub-scores of 70 in all other components
- IELTS: An overall band score of 7.0 with a 7.0 or higher in Speaking
- MELAB: A minimum score of 85 with a minimum sub-score of 3+ in Speaking
- TOEFL Internet-based (iBT): A minimum overall score of 90 with minimum sub-scores of 20 in Reading and Writing, 26 in Speaking, and 22 in Listening
- TOEFL Paper-based: A minimum overall score of 580 with a minimum sub-score of 50 in each of Listening and Speaking, and a minimum score of 5.0 in each of Writing and Reading

Note:
The Bachelor of Psychiatric Nursing (BPN) degree completion program will interest you. Building on your Psychiatric Nursing diploma, we’ll provide you with a strong foundation to grow your career provincially, nationally and internationally.

The Bachelor of Psychiatric Nursing is a degree completion program for graduates of Saskatchewan Polytechnic's Psychiatric Nursing diploma program. You’ll study on a part-time basis, taking one or two courses at a time through distance learning, with a clinical practicum.

You’ll deepen your understanding of standards and competencies related to clinical practice, leadership, management, education and research. Mental health promotion and primary health care are emphasized, with a strong focus on clinical practice education. You’ll broaden your knowledge and skills in:

- addictions, sociology and psychology
- economic, social and political influences in psychiatric nursing
- informatics and statistics
- integrating leadership and management theory and skills
- research for evidence-based nursing practice

Designed for Working RPNs

The BPN degree completion program is designed to accommodate working RPNs. Depending on when you graduated, you’ll be able to complete your degree through part-time study in 2 to 2.5 years.

If you graduated before 2010, you’ll take 1 to 2 courses per term over eight terms, earning your BPN in 2.5 years.

If you graduated after 2010, you’ll take 1 to 2 courses per term over six terms, earning your BPN in two years.

This program is offered with the written authorization of the Minister of Advanced Education, effective July 1, 2013. This authorization was provided after the program proposal underwent a quality assurance review and was found to meet the standards established by the Minister. Prospective students are responsible for satisfying themselves that the program and degree will be appropriate to their needs. Learn more about the 2018 External Review.

Refer to Frequently Asked Questions for additional information.

International applicants will not be considered for admission to the program.

Career Opportunities

Growing demand for psychiatric nurses is opening doors to careers in clinical practice, leadership, management, education and research. You’ll continue to use your RPN designation, but your BPN will open the door to new opportunities in hospitals, long-term care facilities, correctional institutions and programs, community health settings and youth centres.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you or visit www.healthcareersinsask.ca

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

Prior to 2010 Bridging Sem A
- PSYN 209  Physical Assessment
- PSYN 307  Addictions

Prior to 2010 Bridging Sem B
- PSYN 210  Health and Mental Health Literacy
- SOCI 200  Culture and Diversity in Health Sciences

Prior to 2010 Year 1 Sem 1
- ENGL 100  Critical Reading and Writing
- PSYN 208  Informatics for Health Care Professionals

Prior to 2010 Year 1 Sem 2
- PSYC 101  Introduction to Psychology
- SOCI 100  Introduction to Sociology
- STAT 202  Introductory Statistics

Prior to 2010 Year 1 Sem 3
- PSYN 300  Research for Evidence-Based Nursing Practice
### Prior to 2010 Year 2 Sem 4
- **PSYN 303**  Economic, Social & Political Influences in Psychiatric Nursing

### Prior to 2010 Year 2 Sem 5
- **PSYN 304**  Integrating Leadership & Management in Psychiatric Nursing
- **PSYN 308**  Open Elective 1

### Prior to 2010 Year 2 Sem 6
- **PSYN 400**  Consolidated Collaborative Practice
- **WORK 404**  Consolidated Collaborative Work Experience

### Beyond 2010 Year 1 Sem 1
- **ENGL 100**  Critical Reading and Writing
- **PSYN 208**  Informatics for Health Care Professionals

### Beyond 2010 Year 1 Sem 2
- **PSYC 101**  Introduction to Psychology
- **SOCI 100**  Introduction to Sociology
- **STAT 202**  Introductory Statistics

### Beyond 2010 Year 1 Sem 3
- **PSYN 300**  Research for Evidence-Based Nursing Practice

### Beyond 2010 Year 2 Sem 4
- **PSYN 303**  Economic, Social & Political Influences in Psychiatric Nursing
- **PSYN 308**  Open Elective 1

### Beyond 2010 Year 2 Sem 5
- **PSYN 304**  Integrating Leadership & Management in Psychiatric Nursing
- **PSYN 309**  Open Elective 2

### Beyond 2010 Year 2 Sem 6
- **PSYN 400**  Consolidated Collaborative Practice
- **WORK 404**  Consolidated Collaborative Work Experience

Note: Students take one of either **PSYC 101** or **SOCI 100**.
Collaborative Nurse Practitioner Program

Degree: Master of Nursing – Nurse Practitioner degree
Location: Online

Start date: September
Duration – see below

Admission Requirements

To be considered to the Collaborative Nurse Practitioner Program, you must satisfy the admission requirements listed in the University of Regina’s Faculty of Graduate Studies and Research website. Additional requirements information can be found below.

The language of instruction in the MN (NP) is English. You must demonstrate an appropriate level of proficiency in English as required by the U of R.

Submission of a comprehensive curriculum vitae, comprised of education history, nursing work history, special contributions and acknowledgements, and community involvement is encouraged.

The Collaborative Nurse Practitioner Program has one intake per year with classes beginning in September. Preference is given to Saskatchewan applicants; however, applicants from other Canadian jurisdictions are encouraged to apply.

The program has designated equity seats that are representative of the Indigenous population in Saskatchewan. Indigenous students at the University of Regina are asked to self-declare their Indigenous status when they log into the University’s Admissions online form. Like all other CNPP applicants, Indigenous students must fully meet the admission criteria. Unfilled equity seats will become available to other applicants.

Additional requirements

Risk Management documents are required to engage in the clinical following acceptance to the program.

NOTE: These documents are to be submitted to the Clinical Coordinator via email at cnp@saskpolytech.ca or by fax at 306-775-7791 no later than September 30. ONLY FAXED OR emailed PDF formats will be accepted.

- Current personal resume, professional appearance and in PDF format. This may be required when negotiating a clinical placement.
- A Vulnerable Sector Search (VSS). Please note that a Criminal Record Check is done within this document. **IMPORTANT**
  Please indicate to your local Police Department or RCMP detachment that you require a Vulnerable Sector Search for educational & clinical placement purposes, as you will be working with the elderly, the infirm, children, youth and other vulnerable populations. This document must be dated within 3 months from acceptance into program. http://www.rcmp-grc.gc.ca/cr-cj/index-eng.htm
- A record of immunizations specific requirements are outlined.
School of Nursing
SASK POLYTECH Programs

- Tuberculin Skin Test: within the last year or documentation of a previous positive test with a copy of the x-ray report.
- MMR (Measles, Mumps, Rubella): documentation of 2 doses of MMR containing vaccine and a blood test for Measles IgG, Mumps IgG and Rubella IgG that confirms immunity.
- TdaP: documentation of a primary series and 1 adult dose of TdaP after the age of 18 years and within 5 years of program start date.
- Hepatitis B: documentation of a 2 or 3 dose Hepatitis B series and a blood test for Hepatitis B antibodies (anti-HBs or HBsAb).
- Varicella (chickenpox): documentation of 1 or 2 doses of Varicella-containing vaccine or a blood test for Varicella-Zoster IgG that confirms immunity.
- Polio: documentation of a primary series.
- Influenza: annual immunization is required as per provincial Mask or Immunize policy.
- Current Basic Life Support (BLS) for Health Care Providers (C)
  (Note: This must remain current during the duration of your program. It is your responsibility to ensure that you participate in the required course to remain current.)
- Respiratory Mask FIT Testing (Note: This must remain current during the duration of your program. It is your responsibility to ensure that you participate in the required course to remain current.)
- Workplace Hazardous Materials Information System (WHMIS) Training (Note: Training must be completed within 12 months of your program start date.)
- HSPnet Consent Form
- Confidentiality Agreement Form
- Workers Compensation Form
- Student Authorization Form

Program overview

The Collaborative Nurse Practitioner Program (CNPP) is an online graduate level program offered through a joint partnership between the Saskatchewan Polytechnic and the University of Regina.

Upon completion of the program, graduates will receive a Master of Nursing – Nurse Practitioner degree from the University of Regina. Your studies will provide you with the knowledge and skills to write the Canadian Nurse Practitioner Examination.

The program has received 5 years’ approval from the Saskatchewan Registered Nurses’ Association (SRNA) which acknowledges that graduates will be eligible for RN(NP) licensure in Saskatchewan after successful completion of the Canadian Nurse Practitioner Examination.

As a CNPP student, you will study in the fall, winter and spring-summer semesters to obtain your degree. You will complete 702 hours of clinical practice experiences in primary care settings with a licensed registered nurse (nurse practitioner). Limited hours may be completed with a primary care physician and a pharmacist.

As a student, you will develop advanced nursing practice competencies while participating in community-centered practice.

The program is delivered through online learning with the exception of an on-campus one-week mandatory residency requirement in
Critical Care Nursing
Advanced Certificate

Location
- Online
- Prince Albert
- Regina
- Saskatoon

Start date
Please contact criticalcarenursing@saskpolytech.ca or Heidi Kirk, administrative support, at 306-775-7445 (toll free at 1-866-467-4278), to determine the next available intake based on clinical capacity. Provide your name and phone number and the program team will respond.

Duration
- 11 week September, January, March (fast track) 18 weeks August, January (regular track)

Admission requirements
Before you apply, please contact criticalcarenursing@saskpolytech.ca or call Heidi Kirk, administrative support, at 306-775-7445 (toll free at 1-866-467-4278) to determine the next available intake based on clinical capacity.

- Effective February 1, 2019: To enroll in the program, you must be currently licensed with the registered nurses’ licensing body in the province where you will be completing your clinical practice education experience.
- English Language Requirement documentation is considered met as evidenced through licensure with the registered nurses’ licensing body in Canada.

The following are not required on admission but are required prior to participating in the clinical component:

- Current immunization
- Current CPR Health Care Provider “C” AED or equivalent
- Transferring, Lifting and Repositioning (TLR) certification
- Evidence of current N95 respirator mask testing. The cost of N95 respirator mask testing is your responsibility.

Program overview

Are you an RN wishing to expand your current skill set and knowledge base, enabling you to provide care for patients with complex multi-system health issues? Do you thrive in a high intensity environment, and desire to be a part of a multidisciplinary team that seamlessly blends knowledge and technology, all while delivering holistic, evidence-based patient care? If so, a career in critical care nursing might be the path for you.

Critical care nurses are skilled health-care providers who are able to rapidly integrate knowledge and skill. An essential part of the health-care team, critical care nurses work with a variety of health-care professionals, providing care to patients and families during times of stress and crisis.

Saskatchewan Polytechnic’s Critical Care Nursing is an advanced certificate program for practicing registered nurses (RNs). It is offered through a blend of distance education and hands-on lab and clinical practicum experiences in Saskatchewan. You can choose to study fast track or regular track, whichever suits your schedule.

The program integrates information through a step-by-step approach, building on a comprehensive knowledge base. Through online classes, skills labs, simulation experience and clinical practicums, you’ll broaden your knowledge and skills in:

- What it means to work in critical care and concepts such as patient- and family centered care, infection control, and working with a team.
- Anatomy and physiology with a critical care focus.
- Assessment and diagnosis in critical care.
- Disorders and management in critical care.
- Multisystem dysfunction and management in critical care.
- Exploring the impact of critical care on you, the long-term outcomes on patients, future concepts in critical care, and the process of change.

Why Saskatchewan Polytechnic?

Saskatchewan Polytechnic is one of the most respected providers of nursing education in Canada. Our Critical Care Nursing program follows standards set by the Canadian Association of Critical Care Nursing. When you graduate, you’ll have the foundation you need to successfully write the national critical care certification exam.

A Stepping Stone

If you’re registered with the Saskatchewan Registered Nurses’ Association (SRNA) while taking the program, you can apply for practice hours to maintain your registration. On graduation, you qualify for transfer credits towards post-RN degree programs at the Athabasca University of Alberta.

To Apply

Before you apply, please email criticalcarenursing@saskpolytech.ca or call toll-free at 1-866-467-4278 to determine the next available
intake based on clinical capacity. Provide your name and phone number, and our program team will respond.

The Critical Care Nursing program is open to registered nurses actively licensed with the Saskatchewan Registered Nurses’ Association (SRNA).

Refer to Frequently Asked Questions for additional information.

Career Opportunities

As a graduate of the Critical Care Nursing program, you’re qualified to be a leader and team player in critical care settings, including intensive care, cardiac care and surgical intensive care units. In Saskatchewan, some health regions sponsor and hire local RNs to take the program and work in critical care areas in regional hospitals and tertiary care centres.

For more information, visit www.healthcareersinsask.ca

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

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Medical Device Reprocessing Technician Certificate of Achievement

Location

- Online

Start date

- August, October and January
  - For additional information, contact the program at mdr.regina@saskpolytech.ca

Duration

- 24 weeks

Admission requirements

- Grade 12
- English Language Requirement

Note:

Prior to the start date of the program, accepted applicants will be required to provide evidence of the following:

- Current immunization records, and meet Saskatchewan Polytechnic immunization requirements prior to engaging in work integrated learning experiences
- Criminal Record Check and Vulnerable Sector Search. At the discretion of the work integrated learning site, you may be denied access based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.
- Transfer Lifting Repositioning (TLR®) © Object Moving training certification is mandatory for Saskatchewan applicants. Out of province applicants must meet the placement requirements of their province or jurisdiction. The cost of this certification is your responsibility.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview

Medical device reprocessing technicians operate and maintain a variety of sterilization equipment such as instrument washers, sonic sinks, cart washers and steam autoclaves to clean and disinfect surgical instrumentation and equipment for reuse according to standardized safety practices. They reassemble equipment and prepare packs of sterile supplies and instruments for delivery to hospital departments.

Saskatchewan Polytechnic’s Medical Device Reprocessing Technician is a 24-week certificate of achievement program offered through distance education. The program will prepare you to apply principles of infection prevention and proper handling in the decontamination, inspection, assembly, sterilization and storage of reusable patient care equipment and instrumentation in health-care settings.

Work Experience

You will participate in four one-day work experiences, each designed to integrate your course learning with a practical experience in a medical device reprocessing department. Under the
supervision of a staff member you will observe and work in the different areas of a medical device reprocessing department. You will collaborate with your instructor to arrange work experiences in a site of your preference.

Career Opportunities

Medical Device Reprocessing Technician program graduates are in high demand. You could have a variety of opportunities in healthcare facilities, such as hospital medical device reprocessing departments, veterinary clinics, public and private endoscopic clinics, dental clinics and private surgical centres.

For more information about career opportunities related to this program, visit the Health Careers website.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

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Nursing Re-entry Applied Certificate

Location

- Online

Start date

- Ongoing:

For more information, contact rrre-entry@saskpolytech.ca

Duration

- You must complete all courses within 3 years

Admission requirements

- A recommendation letter from the Saskatchewan Registered Nurses’ Association (SRNA)

Note

The following is required prior to participating in clinical practice education. The cost and time required to meet these requirements are the student's responsibility.

- Current CPR Health Care Provider "C" AED, or equivalent
- Current immunization
- Transferring, Lifting and Repositioning (TLR) certification
- Evidence of current N95 respirator mask testing
- Criminal Record Check (A student may be declined access to a clinical placement based on the contents of the Criminal Record Check)

Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview

You’ve been thinking about getting back into nursing. You miss your ability to touch so many lives as a registered nurse. And whether you want to practice at the bedside or work in research, community health or education, job opportunities for RNs are more diverse than ever.

Saskatchewan Polytechnic's Nursing Re-entry program is your first step back to the career you love. When you graduate, you’ll have the knowledge and skills you need to move confidently into today’s primary health-care settings.

Saskatchewan Polytechnic's Nursing Re-entry is an applied certificate program for RNs previously registered in Canada or currently registered but wanting to update their knowledge and skills. There are three major components to the program: theoretical concepts (12 self-study courses), simulation labs and onsite clinical practice education. Your studies will focus on:

- child, adult and older adult nursing
- health assessment
- issues and trends in professional nursing
- mental health nursing
- perspectives in community nursing
- pharmacology

Why Saskatchewan Polytechnic?

Saskatchewan Polytechnic is one of the most respected providers of nursing education in Canada. Our Nursing Division offers innovative online programs. Each is designed with input from the health care profession, so your education is up-to-date and matches opportunities in the field.

Learn At Your Own Pace

Because Saskatchewan Polytechnic Nursing Re-entry program is an online, distance-based program, you can work from your own
home, on your own time and at your own pace. You have three years to complete all courses. You’ll build your knowledge through course work, develop your practical skills through simulation labs and gain real world experience through clinical practicums. You’ll also have one-on-one interaction with faculty throughout your program.

Update Your Professional Credentials

On completion of the program, you’ll be eligible for re-licensure as a Registered Nurse with the Saskatchewan Registered Nurses’ Association (SRNA) or you’ll be eligible to write the Canadian Registered Nurse Exam (CRNE).

Refer to Frequently Asked Questions for additional information.

Career Opportunities

When you graduate, you’ll be ready to move confidently into today’s primary health-care settings—acute-care hospitals, regional hospitals, long-term care facilities, home-care settings and more. Most RNs work in direct patient care, but your background and experience could open doors to jobs in administration, education, research and more.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you or visit www.healthcareersinsask.ca

Transfer credit

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<td>PHAR 200</td>
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</table>

You will need Microsoft Word (2000 or newer) and Internet access for NRSG 200, NRSG 201, NRSG 202, and NRSG 203. You can purchase your books and manuals from the Regina campus Bookstore. You must complete the program within three years. Because there is no faculty support available during July and August, these months are not counted when determining your course end date.

Occupational Health Nursing
Post-Graduate Certificate

Location

• Online

Start date

Ongoing

For more information, contact: Occupational Health Nursing, School of Nursing, Saskatchewan Polytechnic Regina Campus Phone: 306-775-7932Toll Free:1-866-467-4278 Email: occupationalhealthnursing@saskpolytech.ca

Duration

• Part-time study equivalent to approximately 19 weeks

Admission requirements

• Graduate of a bachelor of nursing program (or other relevant bachelor’s degree)
• Licensed and currently registered with the registered nurses’ licensing body in the province where you will participate in clinical practice education
• English Language Requirement

Program overview

Occupational Health Nurses are registered nurses who play a vital role in workplace wellness. Their exciting role encompasses health promotion, health maintenance, and the prevention of illness and injury in the workplace.

If you are seeking a role in nursing where you will work independently as well as in collaboration with others, and where you will advocate for workers to improve workplace health and safety - this career is for you.

Who Qualifies

To enroll in this program you must be a graduate of a recognized bachelor of nursing program, and be licensed and currently registered with the registered nurses’ licensing body in the province where you will participate in clinical practice education.

Register online at saskpolytech.ca or call 1-866-467-4278
Why Saskatchewan Polytechnic

Saskatchewan Polytechnic's post-graduate certificate in Occupational Health Nursing will prepare you for the pace and pressures experienced by a nurse working in industry. Best of all, the program is available online, which allows you to study at a time, pace, and location that is convenient for you.

Your specialized studies will focus on:
- assessing workers, and disabilities
- exploring safety systems
- assessing hazards
- creating safe work environments
- managing projects
- providing nursing leadership in the workplace

Your studies will be based on the latest, evidence-informed practice for the specialty. You will have an opportunity to apply theory and demonstrate critical thinking, problem solving and skill mastery in a simulated lab setting.

Your learning experience culminates with an 80-hour field work opportunity in an industry setting, where you will apply what you have learned and will be mentored by an employed registered nurse.

Career Opportunities

Occupational Health Nurses play a unique role in health promotion and safety. They work independently and as part of a team, in outpatient care centres, educational institutions, factories, large corporations, public health clinics and hospital settings.

As a result of industry growth in western Canada, an aging population, and a focus on workplace safety, there is an increase in employment opportunities in this specialty.

If you want to make a difference in workplace health and safety - this career is for you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

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Orientation to Nursing in Canada for Internationally Educated Nurses

Applied Certificate

Location
- Online

Start date
- September, January and April

Duration
- 64 weeks (16 weeks x 4 semesters)
  - You will have two years to complete the program. For a list of currently available courses, click here.

Admission requirements
- A letter from the SRNA (or from the regulatory body in the province where the student resides) recommending the candidate for the ONCIIEN program and indicating the candidate meets English language proficiency

Note:
- Proof of current Transferring, Lifting and Repositioning (TLR) certification is required prior to entry into the clinical practicum. The cost of TLR certification is your responsibility.
- Current CPR Health Care Provider "C" AED or equivalent is required prior to participating in CLIN 209 Clinical Experience. The cost of CPR certification is your responsibility.
- Current immunization is required prior to participating in CLIN 209 Clinical Experience.
- A Criminal Record Check and Vulnerable Sector Search is required prior to participating in CLIN 209 Clinical Experience. A student may be declined access to a clinical placement based on the contents of the Criminal Record Check and Vulnerable Sector Search. A student must complete the clinical practice experience to graduate from the program. The
cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.

- Accepted applicants are required to provide evidence of current N95 respirator mask testing prior to entry into the clinical practicum. The cost of N95 respirator mask testing is your responsibility.
- Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

Program overview

Note: This program is currently undergoing curriculum changes that will shorten the length of the program. For more information, please contact oncien@saskpolytech.ca.

If you're an internationally-educated nurse who wants to practice nursing in Saskatchewan, you will need to update your credentials to meet the competencies set out by the Saskatchewan Registered Nurses' Association (SRNA), or for the regulatory body in the province in which you reside. We are unable to accept internationally educated nurses from Ontario or British Columbia. Saskatchewan Polytechnic is here to help you gain the knowledge and skills to work as a registered nurse (RN) in Canada.

Saskatchewan Polytechnic’s Orientation to Nursing in Canada for Internationally Educated Nurses (ONCIEN) program is an online applied certificate program. It is designed to provide the knowledge and skills you need to work as a nurse in Canada. You will:

- learn about the Canadian health care system
- study health assessment, health challenges, communications, and care of the elderly
- study medical technology, terminology and drug therapy theory in Canada
- study regulations, ethics, safety and cultural competency
- explore issues generated by language barriers and cultural differences
- have your clinical skills assessed in comparison to techniques and equipment used in Canada
- take part in simulation labs and supervised clinical practice education, and
- prepare to write the National Council Licensure Examination (NCLEX)

Why Saskatchewan Polytechnic?

Saskatchewan Polytechnic’s Orientation to Nursing in Canada program is highly regarded across Canada. Because it is offered online (with access to tutor support via telephone, fax and/or email), you can work from your own home, on your own time and at your own pace. You have two years to complete all courses.

Practical Learning

The program is designed to give you hands-on practice with nursing skills, documentation and equipment. You'll take part in simulation labs and supervised clinical practice education, and you'll have your clinical skills assessed in comparison to techniques and equipment used in Canada.

You’re Ready to Earn Professional Credentials

Refer to Frequently Asked Questions for additional information.

Graduation/Completion Requirements

- Successful completion of all theory courses (except the Communications courses) with a grade of 50% or better
- Successful completion of the Communications courses, skills lab and clinical experience is a pass-fail designation based on identified criteria
- PLAR and Transfer Credit
- For more information on PLAR and Transfer Credit, please contact the program at oncien@saskpolytech.ca

Career Opportunities

Whether you already live in Saskatchewan or are planning to move here, Orientation to Nursing in Canada for Internationally Educated Nurses will help you qualify to practice in the province. Once your credentials are recognized by the SRNA, you'll discover career opportunities in hospitals, northern health facilities, community clinics, long-term care facilities and more.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you or visit www.healthcareersinsask.ca

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

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Register online at saskpolytech.ca or call 1-866-467-4278  |  Sask Polytech Calendar 2019-2020  | 195
Perioperative Nursing/LPN
Advanced Certificate

Location
• Online

Start date
August, October, January

For more information, send an email to perioperative@saskpolytech.ca

Duration
• 33 weeks

Admission requirements
• Licensed with the practical nurses’ licensing body in the province where you will participate in the clinical component. Your registration must be active and current to participate in the clinical component.
• English Language Requirement

Graduates of the Saskatchewan Polytechnic Practical Nursing Program prior to 2001 and graduates of a licensed practical nursing program that did not include administration of oral and intramuscular medications and catheterization must also provide proof of successfully completing:
• Administration of Medications for LPNs (or equivalent)
• NURS 1601 Catheterization (or equivalent)
• PHAR 1602 IM Completer course (or equivalent)

Note
Accepted applicants are required to provide evidence of the following upon admission into the program:
• Current immunization records, and meet Saskatchewan Polytechnic requirements
• Current CPR Health Care Provider/AED Level ‘C’ Certificate
• Current N95 respirator mask testing. The cost of N95 respirator mask testing is your responsibility.
• 2015 WHMIS Globally Harmonized System (GHS) certification. The cost of WHMIS certification is your responsibility.

Program overview
If you’re a licensed practical nurse who enjoys working directly with patients in a fast-paced environment, explore Saskatchewan Polytechnic's Perioperative Nursing/LPN program. You could be a scrub nurse working directly with surgeons or a circulating nurse participating in surgical procedures and assisting anaesthetists. Our online program lets you build your professional credentials while looking after family and job responsibilities.

Perioperative Nursing/LPN is an advanced certificate program offered full-time or part-time through online distance education. Choose the full-time option to complete the program in eight months or the part-time option to complete the program in three years. You’ll learn aseptic technique and basic technical skills for working within a surgical environment.

Who Qualifies?
To enrol in the program, you must be currently licensed with the practical nurses' licensing body in the province where you plan to do your clinical practice education. If you graduated from the Saskatchewan Polytechnic Practical Nursing Program prior to 2001, or if you are a graduate of another institution's licensed practical nursing program that did not include courses in administration of oral and IM medications and catheterization, you must provide proof of completion of the following courses:
• Administration of Medications for LPNs or equivalent
• NURS 1601 Catheterization of equivalent
• PHAR 1602 IM Completer course or equivalent

Why Saskatchewan Polytechnic?
Sask Polytech is one of the most respected providers of nursing education in Canada. As a student, you’ll access innovative virtual reality videos of real surgery. Our emphasis on hands-on learning ensures you have the knowledge, the skills and the confidence you need to deliver patient care in the surgical environment.

Hands-on Learning
A one-week lab lets you apply the technical skills you’ve studied online. You’ll practice in a safe, supervised setting using simulations. You’ll begin your 10-week clinical practice with a four-week instructor-led clinical practicum, followed by another six weeks of preceptorored clinical practice in different surgical areas, including gynecology, urology and orthopedics. Clinical placements take place in Regina and Saskatoon. Out of province clinical placements are only available through a contractual arrangement between a health care facility and Saskatchewan Polytechnic.

Individuals must apply directly to one of the approved clinical sites, using the Site Confirmation form. Simply submit the completed form with your application to the program, or separately by fax or email as indicated on the form. If you wish to apply to more than one clinical site, you must submit a separate application with fee.

Maintain Your Professional Credentials
When you graduate, you can apply the program’s course hours toward the continuing education requirements of the Saskatchewan
School of Nursing
SASK POLYTECH Programs

Association of Licensed Practical Nurses (SALPN) to maintain licensure.

Refer to Frequently Asked Questions for additional information.

Career Opportunities

Perioperative nurses are in demand across Canada, thanks to evolving health care delivery models and advances in medical technology. It’s an exciting career path with a growing number of opportunities in urban and regional hospital operating rooms, ambulatory surgery centres, freestanding clinics and more.

For more information about career opportunities related to this program, contact Student Employment Services or visit www.healthcareersinsask.ca

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

ANAT 266 Anatomy Review
CLIN 220 Perioperative Nursing Practice/LPN
NURS 202 Psychomotor Skills Lab
NURS 214 Perioperative Nurse Anesthesia/LPN
NURS 244 Surgical Environment
NURS 246 Surgical Equipment
NURS 248 Surgical Procedures
NURS 250 Perioperative Nursing Process/LPN

Perioperative Nursing/RN
Advanced Certificate

Location

• Online

Start date

August, October, January

For more information, send an email to perioperative@saskpolytech.ca.

Duration

• 33 weeks

Admission requirements

• Licensed with the registered nurses’ licensing body in the province where you will participate in the clinical experience. Your registration must be active and current in order to participate in the clinical component.

• English Language Requirement

Note

Accepted applicants are required to provide evidence of the following upon admission into the program:

• Current immunization records, and meet Saskatchewan Polytechnic requirements
• Current CPR Health Care Provider/AED Level ‘C’ Certificate
• Current N95 respirator mask testing. The cost of N95 respirator mask testing is your responsibility.
• 2015 WHMIS Globally Harmonized System (GHS) certification. The cost of WHMIS certification is your responsibility.

Program overview


Perioperative nurses care for patients undergoing surgery or invasive procedures. As part of the perioperative team, you practice as a scrub nurse and circulating nurse, collaborating with surgeons and anesthesiologists to facilitate surgical procedures.

Saskatchewan Polytechnic’s nationally accredited Perioperative Nursing/RN program prepares you to work in the fast-paced world of today’s OR. Best of all, our online program enhances your professional credentials while allowing you to maintain professional and personal responsibilities.

Perioperative Nursing/RN is an advanced certificate program offered full-time or part-time through online distance education. Choose the full-time option to complete the program in eight months or the part-time option to complete the program in three years. Your education is based on the latest evidence-informed best practices for perioperative nursing. You’ll study the nursing process in perioperative nursing, principles and practices of aseptic technique and highly technical skills for working within a surgical environment.

Who Qualifies?

To enroll in the program, you must be currently licensed with the registered nurses’ licensing body in the province where you will be completing your clinical practice education.

Why Saskatchewan Polytechnic?

Sask Polytech is one of the most respected providers of nursing education in Canada. The Perioperative Nursing/RN program is approved by the Operating Room Nurses’ Association of Canada.
(ORNAC), which opens doors to jobs across the country. As a student, you’ll access innovative virtual reality videos of real surgery. Our emphasis on hands-on learning ensures you have the knowledge, the skills and the confidence you need to deliver patient care in the surgical environment.

One-Week Skills Lab

Patient safety is the focus of a one-week skills lab. It’s an opportunity to apply what you’ve learned in a supported environment, using simulations to practice hands-on skills.

10-Week Clinical Practice

Your learning experience culminates in a 10-week clinical practice. It begins with a four-week instructor-led clinical practicum, followed by another six weeks of preceptored clinical practice in different surgical areas, including gynecology, urology and orthopedics. Clinical placements take place in Lloydminster, Moose Jaw, Prince Albert, Regina, Saskatoon and Swift Current. You will be able to select your preferred clinical site when you submit your application, using the Site Confirmation form. Simply submit the completed form with your application to the program, or separately by fax or email as indicated on the form. If you wish to apply to more than one clinical site, you must submit a separate application with fee.

Earn Professional Credentials

When you graduate, you’re eligible to:

- Write the Canadian Nurses Association (CNA) certification exam to earn a CPN(c) designation
- Apply for practice hours to maintain your registration with the Saskatchewan Registered Nurses’ Association (SRNA)
- Earn transfer credits to post-RN degree programs at the University of Saskatchewan or Athabasca University, Alberta

Refer to Frequently Asked Questions for additional information.

Career Opportunities

Perioperative nurses are in demand across Canada, thanks to evolving health care delivery models and advances in medical technology. It’s an exciting career path with a growing number of opportunities in urban and regional hospital operating rooms, ambulatory surgery centres, freestanding clinics and more.

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Courses

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<td>NURS 202</td>
<td>Psychomotor Skills Lab</td>
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<td>NURS 244</td>
<td>Surgical Environment</td>
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<td>NURS 245</td>
<td>Perioperative Nursing Process/RN</td>
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<td>NURS 246</td>
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<td>NURS 247</td>
<td>Perioperative Nurse Anesthesia/RN</td>
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<tr>
<td>NURS 248</td>
<td>Surgical Procedures</td>
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</tbody>
</table>

Practical Nursing Diploma

Location

- Online
- Prince Albert
- Regina
- Saskatoon

Start date

- September:
  - On campus Program - September intake each year;
  - Online Program - September intake each year

Duration

- 76 weeks
  - Year 1 - 38 weeks; Year 2 - 38 weeks A summer break over the months of July and August occurs between Year 1 and Year 2.

Admission requirements

- Grade 12 with a minimum overall average of 65% in the following five subjects: English Language Arts A30, English Language Arts B30, Foundations of Math 30 or Pre-Calculus 30 or Workplace and Apprenticeship Math 30*; one of Biology 30, Chemistry 30 or Physics 30; and one of Social Studies 30, History 30 or Native Studies 30
- English Language Requirement Specific to Practical Nursing (refer directly to Practical Nursing in the ELP chart)

Note:

- Please indicate on your application form whether you are applying to the on-campus or online program.
- Applicants should have the Requisite Skills and Abilities (pdf) to become a Licensed Practical Nurse in Canada.
Accepted applicants will be required to provide evidence of a Criminal Record Check and Vulnerable Sector Search upon admission into the program. At the discretion of the practicum agency, you may be declined access to a clinical or work placement based on the contents of the Criminal Record Check and Vulnerable Sector Search. The cost of the Criminal Record Check and Vulnerable Sector Search is your responsibility.

Proof of current Standard First Aid and CPR Health Care Provider ‘C’ AED or equivalent is required prior to entry into the clinical practicum. The cost of Standard First Aid and CPR is your responsibility.

Accepted applicants will be required to provide evidence of Transferring Lifting Repositioning (TLR®) certification upon admission into the program.

Accepted applicants are required to provide current immunization records and meet Saskatchewan Polytechnic immunization requirements prior to entry into clinical experiences.

Accepted applicants are required to provide evidence of current N95 respirator mask testing prior to entry into the clinical experiences. The cost of N95 respirator mask testing is your responsibility.

Effective July 1, 2019: Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.

**Previous Saskatchewan mathematics requirement also accepted:**

- Math A30, Math B30, Math C30, Calculus 30, or General Math 30

Program overview

Notice to applicants: The Practical Nursing curriculum has recently been revised. The revised curriculum will be implemented in September 2019. Please contact the program if you are taking or planning to take courses (APHY 162, APHY 262, SOCI 160, SOCI 260, or SOCI 261) prior to starting the program. We would be pleased to discuss options with you, as some of these courses will not be delivered in the revised curriculum. The Practical Nursing program can be contacted at practicalnursing@saskpolytech.ca

This program is subject to the high-demand admission process. It opens for application on October 1, and closes on February 15, each academic year. On February 15, paper applications are accepted until 4:30 p.m., and online applications are accepted until 11:59 p.m. (Saskatchewan times). All supporting documentation is required by 4:30 p.m. (Saskatchewan time) on March 1.

Licensed practical Nurses are a vital part of today's health care team - in acute hospital care, long-term care and in the community. They provide compassionate, professional nursing care to individuals throughout the human lifespan, infants to seniors. If this sounds interesting to you, explore Saskatchewan Polytechnic's Practical Nursing program. In just two years, we'll help you develop into a competent, confident nurse capable of making a positive difference in the health and well-being of individuals, their families and our communities.

Practical Nursing is a two-year diploma program offered at Sask Polytech Saskatoon Campus, Regina Campus, and Prince Albert Campus, with online distance learning options. Onsite labs and community-based clinical practice education experiences let you apply nursing knowledge, theory and skills in a variety of environments.

The program is a sequential 6-semester program allowing the concepts from one semester to be built on in subsequent semesters. The 6 semesters run over 76 weeks, over a 2-year period. Classes are designed to meet diverse learning styles.

Our experienced faculty help you grow into a competent, confident nurse capable of bringing a holistic, humanistic approach to patient care. You'll study:

- Anatomy and physiology
- Foundations of health
- Pharmacology
- Health assessment through the lifespan
- Long-term and rehabilitative care
- Medical and surgical care
- Obstetrics and pediatrics
- Mental health and addictions
- Community
- Sociology

Instructional methods include seminars, observational experiences, pre- and post-clinical conferences, small group presentations, lectures, demonstrations, role-playing, storytelling, discussion, reflective thinking and writing, and simulation lab experiences.

Opportunities for critical reflection about caring-based practice, development of employability skills and understanding the role and scope of practice of the licensed practical nurse (LPN) are blended into the program's learning activities.

The clinical practice education courses are integrative in nature, and, as such, the evaluation of your performance in the clinical setting involves evaluating the application of the theoretical concepts learned in all other courses. This is what ultimately determines your progress toward achieving the competencies of the beginning practical nurse.

The focus of each semester is as follows:

- Semester 1 - Health Promotion/Illness Prevention
- Semester 2 - Rehabilitative and Supportive Care
- Semester 3 - Restorative and Curative Care
Semester 4 - Acute Medical and Surgical Care
Semester 5 - Acute Medical Surgical Care/Maternal-Child Health/Community
Semester 6 - Transition from Student to Graduate

Selected courses from this program are available through Flexible Learning, prior to being enrolled as a student in the full-time program. These courses are: BIOL 100, BIOL 101 and SOCI 160. For more information on these course offerings, please refer to the Flexible Learning part-time delivery for this program.

For more information about the program, including the admission process and program requirements, refer to the Admission Requirements and Selection Criteria sections below, and to our program Frequently Asked Questions (FAQ).

If you have questions about this program, please contact:
- Prince Albert 306-765-1740
- Regina 306-775-7571
- Saskatoon 306-659-3790
- Email practicalnursing@saskpolytech.ca

Why Saskatchewan Polytechnic?

Sask Polytech is one of the most respected providers of nursing education in Canada. Our small class sizes mean more opportunities to interact with faculty. High-tech simulation centres use near-life scenarios to give you hands-on practice. Clinical practice education lets you transfer your nursing knowledge and skills into the real world.

Extensive Hands-on Learning

Apply what you learn in class and gain real-world experience in actual health-care settings.

- Lab and Simulation – Application of your nursing knowledge and skills will occur in Saskatchewan Polytechnic’s state-of-the-art lab and high-fidelity simulation centres.
- Clinical Practice Education – Each semester contains a clinical experience that gives you the opportunity to put theory into practice. Clinical is completed in a variety of practice settings: long-term care, rehabilitation, acute care, community, and more.
- Experience with Preceptors - In this final experience of the program, you will be preceptored with a practicing LPN who is licensed with the SALPN. This time will assist in your transition from student nurse to practicing nurse.

Study Close to Home

You can enrol in Sask Polytech's Practical Nursing diploma program while staying close to home. We offer the program in partnership with regional colleges and Dumont Technical institutes around the province.

You can also enrol in the full-time online program. Keep in mind that clinical practice education experiences can only be completed in Regina or Saskatoon, with seven designated clinical spots for each. All labs are mandatory at Sask Polytech Regina Campus, on designated weekends each semester.

Earn Your Professional Credentials

The Practical Nursing program meets the approval of the Saskatchewan Association of Licensed Practical Nurses (SALPN). Graduates are eligible to write the Canadian Practical Nurse Registration Exam (CPNRE), which is necessary to become licensed as a practical nurse.

Career Opportunities

Employment opportunities for licensed practical nurses are excellent. Most LPNs work in acute care hospitals, rehabilitation hospitals, medical centres and long-term care facilities. Choose an area that interests you - gerontology, maternal-child, medical, mental health, palliative, pediatric, rehabilitation or surgical nursing.

You also can pursue a career in a community setting: a nursing clinic, home care agency, private nursing agency, community health centre or physician’s office.

Saskatchewan Polytechnic Practical Nursing graduates enjoy national reciprocity, which means you can work in any province in Canada or the Northwest Territories. Our graduates have also found jobs in the United States and overseas.

Further investigate this program choice as a career:

- Conduct informational interviews with people working in this field.
- Explore the possibility of job shadowing.
- Read more about NOC 3233 Licensed Practical Nurses.
- Arrange an INSIGHT experience or attend an Open House event at Sask Polytech.
- Read more about Licensed Practical Nursing practice and regulation by visiting the SALPN website.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

Year 1 - Semester 1

| BIOL 100 | Human Anatomy and Physiology 1 |
| CLIN 103 | Health Assessment and Praxis 1 |
| NURS 163 | Professional Practice and Communication 1 |
Psychiatric Nursing Diploma

Location
- Regina

Start date
- September

Duration
- 86 weeks (7 terms over 2.5 years)

Admission requirements
- Grade 12 with a minimum overall average of 70% in the following five subjects (or their equivalents): English Language Arts A30, English Language Arts B30, Foundations of Math 30 or Pre-Calculus 30*, Biology 30 and Chemistry 30
- English Language Requirement

Note:
- All successful applicants must provide proof of Standard First Aid and CPR Health Care Provider "C" AED or equivalent, and submit the results of a Criminal Record Check and Vulnerable Sector Search, prior to commencement of the program. (When you are accepted to the program, you will be further advised of the required timelines for submission of the related documents. Please await further notice). The cost of CPR certification, and the Criminal Record Check and Vulnerable Sector Search is your responsibility.
- Accepted applicants are required to provide evidence of current N95 respirator mask testing prior to entry into the clinical practicum. The cost of N95 respirator mask testing is your responsibility.
- You will need access to a computer for the entire program.

Effective July 1, 2019:
- Accepted applicants are required to provide evidence of 2015 WHMIS Globally Harmonized System (GHS) certification upon admission into the program. Recertification will be required every three years to remain current. The cost of WHMIS certification is your responsibility.
- Accepted applicants are required to provide evidence of current (TLR®) certification is your responsibility. The cost of TLR® certification is your responsibility.
- Accepted applicants are required to provide evidence of current Professional Assault Response Training (PART) - Advanced Level, prior to Clinical 214. The cost of PART certification is your responsibility.

*Previous Saskatchewan mathematics requirement also accepted:
- one 30-level math (one of Math A30, Math B30, Math C30, Calculus 30, or General Math 30)

Program overview

If you want to play a role in advancing the mental health and well-being of individuals, families and communities, Saskatchewan Polytechnic’s Psychiatric Nursing program will appeal to you.

Psychiatric nursing is a distinct field of practice in Western Canada. There are about 5,000 registered psychiatric nurses (RPNs) working in hospitals, community clinics, care facilities and correctional institutions across Saskatchewan, Manitoba, Alberta and British Columbia … and demand is growing.

Note: This program is now subject to the First Qualified/First Admitted (FQFA) admission process, effective for the academic year 2019/20.

Psychiatric Nursing is a two-and-a-half-year diploma program delivered through blended learning via on-campus classes, video conferencing, onsite labs and clinical practicums to help you transfer your skills into real world practice. Experienced faculty will help you link theory with practice to help clients with mental illness,
psychiatric disorders and developmental and/or cognitive difficulties function at their maximum potential. You will build a strong foundation in psychiatric nursing practice, including:

- health assessment and interventions;
- mental health challenges;
- counselling models and therapeutic relationships;
- family and community partnerships;
- psychotropic pharmacology; and
- addictions and forensics.

Saskatchewan Polytechnic is a Nursing Education Leader

Saskatchewan Polytechnic is one of the most respected providers of nursing education in Canada. Our Psychiatric Nursing program is recognized by the Registered Psychiatric Nurses Association of Saskatchewan, as well as the College of Registered Psychiatric Nurses of Alberta (CRPNA), College of Registered Psychiatric Nurses of British Columbia (CRPNABC), and College of Registered Psychiatric Nurses of Manitoba (CRPNM).

Earn Your Professional Credentials

On graduation, you’ll be eligible to write the Canadian Registered Psychiatric Nurses exam, register with the Registered Psychiatric Nurses Association of Saskatchewan (RPNAS) and apply for designation as a registered psychiatric nurse (RPN).

Refer to Frequently Asked Questions for additional information.

Career Opportunities

As a Registered Psychiatric Nurse, you’ll be actively involved in assessing needs and planning, implementing and evaluating programs that meet the needs of clients affected by mental illness, psychiatric disorders, developmental and/or cognitive difficulties.

RPNs work in a variety of settings. You could work in a hospital, long-term care facility, correctional institution, community mental health setting or youth centre. Laddering into Saskatchewan Polytechnic’s Bachelor of Psychiatric Nursing (BPN) can open the door to careers in education, research, management and leadership.

For more information, contact the Student Employment Services at the Saskatchewan Polytechnic campus nearest you or visit www.healthcareersinsask.ca

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Saskatchewan Collaborative Bachelor of Science in Nursing Degree

Location

- Regina
- Saskatoon

Start date

- September

Courses

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<td>Anatomy and Physiology 1</td>
</tr>
<tr>
<td>MICR 159</td>
<td>Microbiology</td>
</tr>
<tr>
<td>MICR 161</td>
<td>Medical/Surgical Nursing Skills</td>
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<tr>
<td>NRSG 100</td>
<td>Promotion of Psychiatric Nursing Practice</td>
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<tr>
<td>NRSG 101</td>
<td>Introduction to Psychiatric Nursing Concepts</td>
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<td>NRSG 102</td>
<td>Foundations of Psychiatric Nursing Practice</td>
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<td>Anatomy and Physiology 2</td>
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<td>Interpersonal Partnerships</td>
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<td>NRSG 234</td>
<td>Physical Assessment</td>
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<td>NRSG 235</td>
<td>Aboriginal Studies 1</td>
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<td>PSYC 163</td>
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<td>NRSG 236</td>
<td>Introduction to Pharmacology</td>
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<td>NRSG 237</td>
<td>Health and Healthcare Concepts</td>
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<td>NRSG 238</td>
<td>Individual Partnerships</td>
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<td>NRSG 239</td>
<td>Addictions</td>
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<td>NRSG 240</td>
<td>Psychotropic Pharmacology</td>
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<td>NRSG 241</td>
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<td>Clinical 3</td>
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<td>NRSG 242</td>
<td>Group Partnerships</td>
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<td>NRSG 243</td>
<td>Children and Adolescents</td>
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<tr>
<td>NRSG 244</td>
<td>General Pharmacology</td>
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<td>NRSG 245</td>
<td>Health and Mental Health Literacy</td>
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<td>Family Partnerships</td>
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<td>Consolidated Clinical 5</td>
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<tr>
<td>CLIN 218</td>
<td>Preceptor Clinical 6</td>
</tr>
<tr>
<td>NRSG 249</td>
<td>Professional Development</td>
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<tr>
<td>NRSG 250</td>
<td>E-mentoring</td>
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School of Nursing  
SASK POLYTECH Programs

Duration

- 4 years

Admission requirements

High School Admission Requirements
Applicants who are currently enrolled in high school will have their competitive admission average calculated according to the University of Regina’s Early Conditional Admission requirements:
- One course in English or French Language Arts (grade 11 or 12)
- One academic Math (grade 11 or 12)
- One course from category A below (grade 11 or 12)
- One course from category B below (grade 11 or 12)
- One additional course from category A or B below (grade 11 or 12)

Please note:
- A maximum of two math courses may be used
- Nursing does not allow use of any category A or B courses marked with an asterisk* (These have been removed from the list below but may appear on other lists available on the University of Regina website)
- Each requirement must be different subjects except for Language Arts which may be used twice
- Minimum admission averages must be met as per Faculty-specific admission policy (Nursing is competitive entry and requires a minimum grade of 70% in each course)

Category A
- Biology/Biologie
- Calculus/Calcul
- Chemistry/Chimie
- Computer Science
- Earth Science/Sciences de la Terre
- Environmental Science
- Foundations of Math
- Fondements des mathématiques
- Health Science
- Physical Science
- Physics/Physique
- Pre-Calculus/Pré-Calcule
- Sciences de la santé
- Sciences de l’environnement
- Sciences physiques

Category B
- Economics
- French
- Geography/Géographie
- History/Histoire
- German
- History: Canadian Studies
- History of the Americas
- Law/Droit
- Mandarin
- Native Studies
- Native Studies: Canadian Studies
- nêhiyawewin (Cree)
- Psychology/Psychologie
- Sciences sociales francsaksois
- Sciences socials immersion
- Social Studies
- Social Studies: Canadian Studies
- Spanish/Expan gnol
- Ukrainian
- Ukrainian Language Arts

Post-Secondary Admission Requirements
Applicants who have attempted 15 or more credit hours of approved post-secondary education must meet the following criteria.
1. Successful completion of the required high school courses (listed below) or a post-secondary equivalent:
   - English Language Arts A30, Francais Franskaskois A30 or Francais Immersion 30
   - English Language Arts B30, Francais Franskaskois B30 or Francais Immersion 30
   - One of Foundations of Math 30, Pre-Calculus 30 or Calculus 30
   - Biology 30
   - Chemistry 30
2. A minimum of 65% UGPA on ALL post-secondary studies presented

Please note: Saskatchewan high school students can present math requirements under the new and/or former curriculums. The previous Saskatchewan mathematics courses of Math A30, Math B30 or Math C30 will be accepted.

GED will not be accepted in lieu of Grade 12.

If you are missing a high school prerequisite, you can:
1. Pursue studies through the high school system. See Saskatchewan School Boards Association for details.
2. Complete the high school course(s) at Saskatchewan Polytechnic
3. Take the approved post-secondary substitute at the University of Regina:
   - Chemistry 30 = CHEM 100 at the University of Regina
   - Biology 30 = BIOL 100 or BIOL 140 at the University of Regina
   - ELA A30 and B30 = ENGL 100 at the University of Regina
   - One of Foundations of Math 30, Pre-Calculus 30 or Calculus 30 = AMTH 092, MATH 101, MATH 102, MATH 103 or MATH 110 at the University of Regina

Upper Year Admission Requirements
Applicants who have completed a practical nursing, psychiatric nursing, or have completed 9 credit hours or more of nursing courses at a recognized post-secondary institution or nursing program, must apply to the SCBScN program through the Upper Years admission route.
Students admitted through the Upper Year admission category fill vacant seats in the upper years of the program. There is no set number of seats available and admission is based on the ‘fit’ between courses required for an applicant’s program of study after transfer credit evaluation and availability of spots in the courses required.
Applicants for Upper Year Admission must meet the following criteria:
1. Successful completion of the required high school courses (listed below) or a post-secondary equivalent:
   - English Language Arts A30, Francais Franskaskois A30 or Francais Immersion 30
   - English Language Arts B30, Francais Franskaskois B30 or Francais Immersion 30
   - One of Foundations of Math 30, Pre-Calculus 30 or Calculus 30
   - Biology 30
   - Chemistry 30
2. A minimum of 65% UGPA on ALL post-secondary studies presented
3. Successful completion of a practical nursing program, psychiatric nursing program, or 9 credit hours or more of
nursing courses at another accredited post-secondary institution
4. Proof of current Canadian practicing licensure (if completed a practical or psychiatric nursing program)
5. Completed Program Reference Form (required if not licensed)

Please note: Saskatchewan high school students can present math requirements under the new and/or former curriculums. The previous Saskatchewan mathematics courses of Math A30, Math B30 or Math C30 will be accepted.

Internationally Educated Nurses

If you are an internationally educated nurse who does not have a current Canadian practicing license (i.e. LPN, RPN, RN, etc.), you cannot apply to the SCBScN program through the Upper Year admission category.

Internationally educated and licenced registered nurses who have been educated outside Canada and have never been licenced as a registered nurse in Canada should contact the Saskatchewan Registered Nurses’ Association regarding requirements for licensure in Saskatchewan.

After Degree Nursing Program

The ADNP provides applicants who hold a degree in another field to complete the Saskatchewan Collaborative Bachelor of Science in Nursing (SCBScN) program by maximizing your previous post-secondary education.

Applicants who have completed an approved university degree must meet the following criteria:

1. Successful completion of an approved university degree with a minimum UGPA of 70%
2. Successful completion of the following admission requirement courses:
   o English 100 level
   o Statistics 100 level
   o Indigenous Health Studies 100 or Indigenous Studies 100 level
   o One of the combinations below:
     ▪ BIOL 110 and BIOL 111 (with a minimum grade of 60%)
     ▪ KIN 261 and KIN 262 (with a minimum grade of 60%)
     ▪ KIN 260, KIN 267 (with a minimum grade of 60%)
     ▪ KIN 266, KIN 268 (with a minimum grade of 60%)

If you have completed any of the required courses outside of the University of Regina, please view the University of Regina transfer credit database.

If the course you have completed is not listed on the database, please send your detailed course outlines (syllabus) to nursing@uregina.ca for equivalency review. Course Descriptions will not be accepted.

If you are enrolled in an admission requirement course at or beyond the deadline:

Conditional admission will be considered for applicants who have completed three (3) or more admission requirement courses by the document deadline of March 1. Applicants who are enrolled in a remaining admission requirement course at or beyond the admission deadline may be offered conditional admission provided they are enrolled in the courses for which they have a deficit.

Applicants who have been admitted conditionally must satisfy all conditions outlined by the program including the completion of all admission requirement courses. An official transcript showing completion of these courses must be submitted to the University of Regina by June 30.

Additional Requirements

All successful applicants must provide the results of a criminal record check and vulnerable sector search, proof of completion of Standard First Aid, CPR Health Care Provider, and Transfer, Lifting and Repositioning (Trademark TLR) courses, and an up-to-date immunization record prior to the commencement of the program.

English Language Proficiency (ELP) Requirements

The language of instruction at the University of Regina is English. All applicants to the University of Regina must therefore demonstrate an appropriate level of proficiency in the English language. Any one of the following will be accepted as satisfactory evidence:

1. Successful completion of at least three years of formal, full-time English at a secondary school that is a recognized school or institution where English is primary language of instruction.
2. Successful completion of the English as a Second Language (Advanced EAP) program or a minimum average score of 55 on the ESL placement exam both offered through the Centre for Continuing Education at the University of Regina. For further information, please contact ESL as a Second Language Office, Room 114, South Residence, University of Regina, Regina, SK, S4S 0A2, Tel: (306) 585-4585 or esl@uregina.ca.
3. Successful completion of at least 24 credit hours (University of Regina degree level equivalent) in an approved English language post-secondary institution, including at least 6 credit hours in humanities or social science subjects and with a minimum grade point average of 60.00% or equivalent.
4. Advanced Placement English (grade of 3 or better) or International Baccalaureate Higher English (grade of 4 or better) or SAT II English (required score varies).
5. GCSE/IGCSE/GCE O’ Level English, English Language, or English as a Second Language with minimum grade of ‘B’ or GCE A/AS/AICE Level English or English Language with minimum grade of ‘C’.
6. One of the following tests will also be accepted. Test results must be received by the Admissions Office directly from the testing service before the deadline for receipt of application documents.
   o CanTEST: A minimum score of 4.5 in each of Listening, Reading and Writing and a 5.0 or higher in Speaking
   o CAEL: A minimum score of 70 with a minimum sub-score of 70 in Speaking and minimum sub-scores of 60 in all other components
   o IELTS: An overall band score of 7.0 with no band less than 5.5 and a 7.0 or higher in Speaking
   o MELAB: A minimum score of 85 with a minimum sub-score of 3+ in Speaking

Register online at saskpolytech.ca or call 1-866-467-4278
Program overview
The University of Regina and Saskatchewan Polytechnic jointly offer two collaborative programs: the Saskatchewan Collaborative Bachelor of Science in Nursing (SCBScN) and the After Degree Nursing program (ADNP).

Each program leads to a Bachelor of Science in Nursing degree (BScN). Both programs have been approved by the Saskatchewan Registered Nurses’ Association (SRNA); the SCBScN program has also been accredited by the Canadian Association of Schools of Nursing (CASN).

Saskatchewan Collaborative Bachelor of Science in Nursing (SCBScN)
As a Student in the SCBScN program you will begin your nursing education in Year 1 with opportunities to work directly with patients and clients.

The SCBScN program includes eight semesters of course work. The program is designed for full-time study.

SCBScN is accredited by the Canadian Association of Nursing (CASN). This means that your nursing program meets national standards of excellence in nursing education.

As well, more program and course details are available at our Saskatchewan Collaborative Bachelor of Science in Nursing site. https://www.sasknursingdegree.ca/scbscn/

Transfer credit
After you have been admitted to the SCBScN program in the post-secondary category, courses for which you have received previous credit will be evaluated to determine if they are eligible for transfer credit. Official transcripts must have been submitted in order for transfer credit to be assessed.

For guidelines on course equivalencies at other post-secondary institutions, visit https://www.uregina.ca/student/registrar/transfer-credit/transfer-credit-course-equivalents.html and select the institution from the drop-down box under University of Regina Transfer Credit equivalents.
School of Transportation

Agricultural Equipment Technician Certificate

Location
- Saskatoon

Start date
- August

Duration
- 35 weeks

Admission requirements
- Grade 10
- English Language Requirement

Program overview
Agricultural Equipment Technicians diagnose, repair, modify, overhaul, service and maintain some of today’s most technologically advanced machines—tractors, combines, cultivators, seeders, sprayers. If you like working with ag equipment and troubleshooting mechanical problems, it’s a great career choice.

You’ll find your skills are in demand at leading equipment dealerships. You might work as a technician in a fully-equipped service centre or travel to farms and rural areas on service calls. You can also transfer your skills to other industries, such as mining and construction.

Agricultural Equipment Technician is a one-year certificate program offered at Saskatchewan Polytechnic Saskatoon campus. Get hands-on training in:

- air conditioning, heating and electrical
- engines, fuel systems, hydraulics, power trains
- gas and arc welding
- harvest, hay and forage equipment
- onboard computer and global positioning systems (GPS)
- seeding, tillage, sprayers and applicators
- shop procedures and safety
- tractor set-up and pre-delivery

This is Hands-On Learning
You'll spend most of your "classroom" time in the shop with Saskatchewan Polytechnic's highly trained instructors, learning how to assemble, service, repair, modify and overhaul a wide range of equipment. You'll round out your program with a two-week work experience in an agricultural dealership. It's a great opportunity to introduce yourself to a potential employer, while building your practical knowledge and skills.

Apprenticeship Credit
With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Close Ties to Industry
Your program is designed with input from the provincial and national agricultural equipment industry. The industry also supports students by providing new, technologically advanced equipment while local dealerships supply used equipment for hands-on training. This means your knowledge and skills are up-to-date with real world needs.

Career Opportunities
Agricultural Equipment Technicians are in demand at equipment dealerships. There are also opportunities with large farming operations, custom combine companies and in short-line agricultural equipment vendors. Your skills are also transferable to other industries, including mining-manufacturing and construction.

For more information, contact Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit
Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

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<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>AIR 183</td>
<td>Air Conditioning and Heating</td>
</tr>
<tr>
<td>ELEC 296</td>
<td>Electrical Basics</td>
</tr>
<tr>
<td>ELEC 298</td>
<td>Electrical Starting and Charging Systems</td>
</tr>
<tr>
<td>ELEC 299</td>
<td>Electrical System Diagnostics</td>
</tr>
<tr>
<td>ENGN 128</td>
<td>Engine Overhaul and Assessment</td>
</tr>
<tr>
<td>ENGN 129</td>
<td>Engine Overhaul and Assembly</td>
</tr>
<tr>
<td>ENGN 191</td>
<td>Engines Basics</td>
</tr>
<tr>
<td>ENGN 192</td>
<td>Engines Fuel Systems</td>
</tr>
<tr>
<td>EQPT 194</td>
<td>Seeding and Tillage Equipment</td>
</tr>
<tr>
<td>EQPT 196</td>
<td>Harvesting Equipment</td>
</tr>
<tr>
<td>EQPT 197</td>
<td>Hay and Forage Equipment</td>
</tr>
<tr>
<td>EQPT 198</td>
<td>Sprayers and Applicators</td>
</tr>
<tr>
<td>EQPT 199</td>
<td>Pre-Delivery and Performance</td>
</tr>
<tr>
<td>HYDR 124</td>
<td>Introduction to Hydraulic Pumps and Valves</td>
</tr>
<tr>
<td>HYDR 125</td>
<td>Introduction to Hydraulic Flow Controls</td>
</tr>
<tr>
<td>JOBS 125</td>
<td>Essential Job Skills</td>
</tr>
</tbody>
</table>

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020
School of Transportation
SASK POLYTECH Programs

MATH 169  Trade Mathematics
SHOP 124  Hand Tools and Shop Safety
SHOP 125  Machine Safety and Operation
TRNM 190  Primary Driveline Components, Belts and Chains
TRNM 191  Clutch Drive Systems
TRNM 192  Differentials and Final Drives
WLDR 158  Oxy Fuel Cutting (OFC) and Plasma Arc Cutting (PAC)
WLDR 159  ARC Welding (Shielded Metal Arc Welding)
WORK 191  Dealership Work Experience

Note: During your two-week work experience, you will experience how an agricultural dealership operates and will be able to start to apply the knowledge and skills you have acquired.

Auto Body Technician Certificate

Location

- Regina
- Saskatoon

Start date

August (Regina and Saskatoon); January (Regina and Saskatoon; international students)

Duration

- 30 weeks

Admission requirements

- Grade 10
- English Language Requirement

Program overview

Do you like working on cars? Want to get into the workforce quickly? Saskatchewan Polytechnic’s Auto Body Technician program could be a great fit for you. The program prepares you for work in auto body shops, auto dealerships and private garages.

The job involves bending, standing and lifting heavy equipment. But it’s also creative work—a good eye for colour and detail will ensure your skills are in demand.

Auto Body Technician is a one-year certificate program offered on campus in Saskatoon and in Regina.

Note: The Regina (January) delivery of this program is marketed almost exclusively to international students with a study permit, although it may be available to domestic students as well.

The program gives you a solid foundation in the knowledge and skills you’ll need to work in motor vehicle body repair and refinishing. You’ll get practical training in:

- basic and advanced metal work;
- basic and advanced painting;
- benchwork and safe working procedures;
- door servicing, glass installation and electrical systems;
- front sheet metal and plastic material repair;
- industry communications and math;
- welding.

Hands-On Learning

You’ll learn from experienced instructors and get practical experience in Saskatchewan Polytechnic’s well-equipped auto body shops. You’ll hammer out dings, paint a vehicle, install a glass windshield, align a bumper and more. You’ll also spend two weeks in an auto body repair shop getting a first-hand taste of the job.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

When you graduate, you’ll be ready for entry-level positions in auto body repair shops, private garages, paint shops and large commercial fleets. Auto body techs are trained in a variety of tasks, but you could find yourself specializing in painting, frame and wheel alignment, glass installation or body repair.

Go for your journeyperson’s ticket as a Motor Vehicle Body Repairer and you’ll find opportunities for supervisory positions and with appraisal centres. You could also start your own auto body repair business.

For more information, contact Student Employment Services at the Saskatchewan Polytechnic campus nearest you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

BESK 120  Benchwork
COMM 127  Fundamental Communication Skills
Automotive Painting is a 16-week applied certificate that gives you a solid foundation in the knowledge and skills you will need to work in automotive painting.

For more information, contact flexible.learning@saskpolytech.ca.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

When you graduate, you'll be ready for entry-level positions in auto body repair shops, private garages, paint shops and large commercial fleets. Automotive painters don't just paint, they perform a variety of tasks when it comes to painting. You could find yourself specializing in painting, prepping, detailing, and troubleshooting defects.

Go for your journeyperson's ticket as an Automotive Painter and you'll find opportunities with paint manufacturers, and appraisal centres. You could also start your own auto body repair business.

For more information, contact Student Employment Services at the Sask Polytech campus nearest you.

Transfer credit

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Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 127</td>
<td>Fundamental Communication Skills</td>
</tr>
<tr>
<td>DOOR 120</td>
<td>Door Servicing</td>
</tr>
<tr>
<td>ELEC 120</td>
<td>Electrical Systems</td>
</tr>
<tr>
<td>MATH 130</td>
<td>Industrial Mathematics</td>
</tr>
<tr>
<td>METL 120</td>
<td>Basic Metal Work</td>
</tr>
<tr>
<td>PNTG 120</td>
<td>Basic Painting</td>
</tr>
<tr>
<td>PNTG 220</td>
<td>Advanced Painting</td>
</tr>
<tr>
<td>PRAC 121</td>
<td>Industrial Attachment</td>
</tr>
<tr>
<td>SFTY 126</td>
<td>Safe Working Procedures</td>
</tr>
<tr>
<td>SHME 120</td>
<td>Front Sheet Metal</td>
</tr>
</tbody>
</table>

Automotive Service Technician Certificate

Location

- Moose Jaw
- Saskatoon
## School of Transportation
### SASK POLYTECH Programs

**Start date**
- September

**Duration**
- 36 weeks

**Admission requirements**
- Grade 12
- English Language Requirement

**Note**
- Applicants should be physically mobile, capable of moderate lifting and have good manual dexterity.
- A valid driver's license is a requirement in order to operate and road test motor vehicles.

**Program overview**
If you enjoy working on cars and trucks, Saskatchewan Polytechnic's Automotive Service Technician program can fast-track you into a career. In less than a year, you could be working as a technician in an automotive shop, car and truck dealership, specialty shop, service station or transportation company. You'll need good problem-solving skills, mechanical aptitude and manual dexterity. At the end of the program, you'll have transferable skills you can apply to other trades, including agricultural machinery technician, heavy duty equipment technician, truck and transport mechanic.

Automotive Service Technician is a one-year certificate program offered in Moose Jaw and Saskatoon. You'll learn how to diagnose, repair, service and maintain advanced mechanical and electrical systems in today's vehicles. Get practical, hands-on training in:

- body and trim
- brakes and chassis
- charging, ignition and starting systems
- clutches and drive lines
- electronics and electrical systems
- engine repair and rebuilding
- fuel and emission systems
- general shop procedures

Learn from highly trained instructors in Saskatchewan Polytechnic's well-equipped automotive shops. You'll work on real vehicles donated by local dealers and other sources. You'll use industry-leading diagnostic and servicing equipment, including tools unique to specific manufacturers. By the time you graduate, you'll have the kind of practical, hands-on training and experience you will need.

**Apprenticeship Credit**

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

**Career Opportunities**

When you graduate, look for jobs as an apprentice technician in an automotive shop or service station, in the service or warranty department of vehicle dealerships, in engine machine shops and engine building plants. You could work for a public transit agency, a transportation company or a large company that maintains a fleet of vehicles.

**Transfer credit**

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx). For how to Transfer credit to another institution see [https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx](https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx).

**Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATBD 100</td>
<td>Body Components, Accessories and Trim</td>
</tr>
<tr>
<td>BRAK 117</td>
<td>Braking Systems 1 (Non-ABS)</td>
</tr>
<tr>
<td>BRAK 118</td>
<td>Braking Systems 2 (Non-ABS)</td>
</tr>
<tr>
<td>BRAK 119</td>
<td>Braking Systems 3 (ABS)</td>
</tr>
<tr>
<td>COMM 127</td>
<td>Fundamental Communication Skills</td>
</tr>
<tr>
<td>DRTR 110</td>
<td>Driveline Systems</td>
</tr>
<tr>
<td>ELCT 106</td>
<td>Electrical Systems 1</td>
</tr>
<tr>
<td>ELCT 107</td>
<td>Electrical Systems 2</td>
</tr>
<tr>
<td>ELCT 108</td>
<td>Starting, Charging, Lighting and Wipers</td>
</tr>
<tr>
<td>ENGN 125</td>
<td>Engine Systems 1</td>
</tr>
<tr>
<td>ENGN 126</td>
<td>Engine Systems 2</td>
</tr>
<tr>
<td>ENGN 127</td>
<td>Engine Systems 3</td>
</tr>
<tr>
<td>FUEL 102</td>
<td>Introduction to Fuel and Ignition Systems</td>
</tr>
<tr>
<td>MAIN 108</td>
<td>Vehicle Inspection, Apprenticeship and Mentoring</td>
</tr>
<tr>
<td>MATH 169</td>
<td>Trade Mathematics</td>
</tr>
<tr>
<td>SAFE 103</td>
<td>Automotive Shop Safety</td>
</tr>
<tr>
<td>SHOP 109</td>
<td>Automotive Shop Fundamentals</td>
</tr>
<tr>
<td>STER 106</td>
<td>Steering and Suspension 1</td>
</tr>
<tr>
<td>STER 107</td>
<td>Steering and Suspension 2</td>
</tr>
<tr>
<td>TRNM 109</td>
<td>Final Drive Assemblies</td>
</tr>
<tr>
<td>TRNM 110</td>
<td>Clutches and Transmissions Part 1</td>
</tr>
<tr>
<td>TRNM 111</td>
<td>Clutches and Transmissions Part 2</td>
</tr>
</tbody>
</table>

Note: Classroom time will include demonstrations and shop work.

**Commercial Pilot Diploma**
You'll learn about:

- Saskatoon Campus, Koyl Ave. ground school training sessions at Saskatchewan Polytechnic, foundation in the basic principles of aviation. You'll

The Commercial Pilot diploma program provides a strong

*2001 Air Transport Association of Canada Innovation Award

Experience and Mentorship

You'll learn about:

- meteorology
- instrument flying
- navigation
- theory of flight

School of Transportation
SASK POLYTECH Programs

<table>
<thead>
<tr>
<th>Location</th>
<th>Saskatoon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start date</td>
<td>January</td>
</tr>
<tr>
<td>Duration</td>
<td>Semester 1 (January to April) - 16 weeks; Semester 2 (September to December) - 16 weeks</td>
</tr>
<tr>
<td>Admission requirements</td>
<td>Grade 12, Private Pilot's License, Category 1 Medical Certificate from a Transport Canada approved medical examiner; (it can take up to two months to complete this certificate; you may wish to plan your application to the program accordingly), English Language Requirement</td>
</tr>
<tr>
<td>Note</td>
<td>Physics 30, Pre-Calculus 20 and Foundations of Mathematics 30 are recommended</td>
</tr>
<tr>
<td>Program overview</td>
<td>Take to the skies with Saskatchewan Polytechnic's award-winning Commercial Pilot program, offered in partnership with the Saskatchewan Aviation Council (SAC). The growing aviation industry means qualified pilots are in demand—there's never been a better opportunity to build your career as a commercial pilot.</td>
</tr>
<tr>
<td>The Saskatchewan Polytechnic/SAC Commercial Pilot program is one of the most innovative, highly-respected programs in Canada. When you graduate, you'll have your Commercial Pilot Licence with multi-engine instrument rating or single-engine instrument rating.</td>
<td></td>
</tr>
</tbody>
</table>
| *2001 Air Transport Association of Canada Innovation Award

State-of-the-Art Flight Simulator

Saskatchewan Polytechnic's new Alsim flight simulator puts you in the pilot's seat for take-off and landing at any airport in North America. Programmable real-life scenarios give you risk-free experience flying in all kinds of weather and dealing with emergencies and standard operating procedures. The simulator has 19 possible configurations including single engine, multi-engine, piston engine, turbine engine and jet aircraft.

Experience and Mentorship

Ground school classes are led by experienced instructors who know the aviation business. Your classes offer a unique opportunity to talk one-on-one with experienced pilots and other aviation professionals, getting an inside view on finding a job, building your career and developing your skills.

Career Opportunities

Commercial aviation is expanding. There are job opportunities for qualified commercial pilots with charter and scheduled airlines, large corporations, courier companies, commuter airlines, flight schools, crop sprayers, aerial photography and survey companies, airline and airport administration and more. Your first job will probably be in a ground position with a smaller operator, where you'll be expected to demonstrate commitment and professionalism as you work your way into flying positions.

For more information about a career as a professional pilot, visit the Air Transport Association of Canada (ATAC) or Saskatchewan Aviation Council websites, or contact the Saskatchewan Polytechnic Aviation program head at 306-933-7290.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

Courses

| Semester 1 |
| AVIA 181 | Navigation |
| AVIA 182 | Meteorology 1 |
| AVIA 183 | Flight Operations 1 |
| AVIA 184 | Canadian Aviation Regulations 1 |
| AVIA 191 | Cultural Awareness |
| COMM 393 | Communications 1 |
| ENGN 180 | Aircraft Engines |

Register online at saskpolytech.ca or call 1-866-467-4278 | Sask Polytech Calendar 2019-2020 210
Heavy Equipment and Truck and Transport
Applied Certificate

Location

- Saskatoon

Start date

August 12 to December 20, 2019

For more information, contact flexible.learning@saskpolytech.ca

Duration

- 19 weeks

Admission requirements

- Grade 11 with one of the following mathematics: Foundations of Math 20, Pre-Calculus 20, Workplace and Apprenticeship Math 20 (Modified and General Math credits are not acceptable)
- English Language Requirement

Program overview

Maximize your career opportunities with the Heavy Equipment and Truck and Transport applied certificate program – you'll get training in two high-demand trades at once.

The 19-week program is all about practical learning. In addition to classroom learning, you'll get hands-on learning by working on different types of equipment. On the heavy duty equipment side, you could work on bulldozers, cranes, graders, loaders or earthmovers. On the truck and transport side, you could work on trucks, buses or highway transport vehicles.

Heavy Equipment and Truck and Transport grads are in high demand, with opportunities in urban, rural and remote areas. Boost your earning power and job opportunities even more by pursuing journeyperson’s certification.

The Heavy Equipment and Truck and Transport applied certificate program is also delivered off-campus at regional colleges and through Skills Training programming.

For more information, contact flexible.learning@saskpolytech.ca

Apprenticeship Credit

Applied certificate programs can give you a head-start on apprenticeship. To learn how to apply your academic credit toward Level 1 of the Heavy Duty Equipment Technician apprenticeship program, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

Successful completion of the Heavy Equipment and Truck and Transport applied certificate opens a lot of doors. Look for entry-level jobs with equipment dealerships or with companies in the construction, oil and gas, forestry, mining and transportation sectors.

Transfer credit

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Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020
Heavy Equipment and Truck and Transport Technician Certificate

Location
- Saskatoon

Start date
- September

Duration
- 35 weeks

Admission requirements
- Grade 11 with one of the following mathematics: Foundations of Math 20, Pre-Calculus 20, Workplace and Apprenticeship Math 20 (Modified and General Math credits are not acceptable)
- English Language Requirement

Program overview

The Heavy Equipment and Truck and Transport Technician program at Saskatchewan Polytechnic gives you basic training in two high-demand mechanical trades at once. Heavy duty equipment technicians work on large mobile equipment—bulldozers, cranes, graders, loaders and earthmovers used in construction, mining, forestry and more. Truck and transport mechanics work on trucks, buses and highway transport vehicles for dealers, garages and transportation companies.

Heavy Equipment and Truck and Transport Technician is a one-year certificate program offered in Saskatoon. Build the knowledge and skills you need to service, maintain, diagnose and repair heavy equipment, trucks, buses and transport vehicles. You’ll get training in:

- air conditioning and heating systems
- brake, steering and suspension systems
- electrical and hydraulic systems
- engines, fuel systems and power trains
- equipment operation and maintenance
- trade math and blueprint reading
- use of shop equipment and tools
- welding

60% Shop Time, 40% Class Time

You’ll learn from highly qualified instructors in Saskatchewan Polytechnic’s well-equipped heavy equipment shop facility at 135 English Crescent in Saskatoon. The industry is a big supporter of our students, which means you’ll learn on advanced equipment. You’ll also participate in an industry-based two-week work experience.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

Saskatchewan Polytechnic graduates are in demand. When you graduate, you’ll have the knowledge and skills you need to sell, operate, maintain and repair heavy equipment, trucks, buses and transport vehicles. Start your career in an equipment dealership, transportation company, public transit operation, service and rental company. There are also hands-on jobs in construction, forestry, mining and oil and gas industries, as well as opportunities to move into sales, marketing and management. You could also open your own business.

Transfer credit

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Register online at saskpolytech.ca or call 1-866-467-4278
Register online at saskpolytech.ca or call 1-866-467-4278  Sask Polytech Calendar 2019-2020  213
The Multi-Mechanical Trades certificate program is based in Saskatoon, and encompasses the following trades: Heavy Equipment and Truck and Transport Technician, Agricultural Machinery Technician, and Automotive Service Technician. It is primarily delivered off campus through continuing education.

Career Opportunities

Graduates are prepared for entry-level positions to service and repair off-road and on-road vehicles, working with agricultural, automotive, truck and heavy construction equipment.

Trade time and academic credit may be available for graduates who find employment in the trade and register as apprentices. Please contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) for further information.

For more information about career opportunities related to this program, contact Student Employment Services at the campus nearest you.

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

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<td>WORK 156</td>
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</table>

Parts Management Technician Certificate

Location

- Online

- Saskatoon

Start date

- September

Duration

- 32 weeks

Admission requirements

- Grade 10
- English Language Requirement

Program overview

Parts management technicians make sure the right parts are available in the right place at the right time. You have to like variety, be good at organizing things, be able to handle large volumes of information, and have good people and computer skills.

The Parts Management Technician program at Saskatchewan Polytechnic provides the skills you need to work in wholesale distribution centres and in automotive, truck, agricultural, industrial equipment and recreational equipment dealerships.

Saskatchewan Polytechnic's one-year Parts Management Technician certificate program is offered on campus in Saskatoon. The entire program is also offered online through distance learning. Combining classroom theory with practical assignments and labs, you'll learn how to serve different customers, dispense parts and sell related goods. You'll get practical training in:

- all types of parts
- maintaining a clean, orderly display and storage area
- maintaining pre-determined inventory levels
- parts applications and locations
- parts purchasing and storage
- using a computerized inventory control system
- using parts manuals, catalogues, and electronic catalogues

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

Career Opportunities

When you graduate from Saskatchewan Polytechnic's certificate program, you'll be ready to work as a parts or warehouse person in automotive, truck, agricultural, industrial or recreational dealerships, in wholesale distribution centres and for industrial suppliers. There are jobs at mine sites, mills, warehouses, government departments, hospitals, even the armed forces. You could also work as a service
writer, inventory control clerk, purchasing clerk, shipper and receiver.

Transfer credit

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Courses

- COAP 194 Inventory Software
- COMM 127 Fundamental Communication Skills
- INDG 100 Introduction to Indigenous Studies
- MATE 190 Materials Handling and Equipment
- MGMT 189 Managerial Skills
- PART 179 Parts Marketing Essentials
- PART 191 Introduction to the Parts and Warehousing Trades
- PART 192 Tools and Measuring
- PART 193 Engine Systems 1
- PART 194 Parts Information Systems
- PART 195 Electrical Parts 1
- PART 196 Parts Facilities
- PART 197 Parts Documentation
- PART 198 Parts Warehousing
- PART 199 Inventory Audit
- PART 287 Hydraulic Parts
- PART 288 Engine Parts 1
- PART 289 Vehicle System Parts
- PART 291 Drivetrain Components
- PART 292 Standard Inventory
- PART 293 Engine Systems 2
- PART 294 Automotive and Truck Wholegoods
- PART 295 Electrical Parts 2
- PART 296 Agricultural and Industrial Wholegoods
- PART 298 Engine Parts 2
- PART 299 Inventory Control
- WORK 198 Work Experience

For more information, visit the Creating Opportunities for Entry into the Trades web page, contact programinnovation@saskpolytech.ca or call 306-659-4358.

Duration

- 13 weeks

Admission requirements

- Grade 10
- English Language Requirement

Program overview

Parts Person is an applied certificate program. Your studies will focus on providing customer service at the parts counter, dispensing parts to a dealership's service department and selling related products and whole goods.

Career Opportunities

Graduates are prepared for entry level positions in the parts trade. They can find employment in a wide variety of parts operations in different types of businesses, including automotive, heavy truck, agricultural, industrial, aftermarket parts, recreational supplies, and warehousing operations.

Trade time and academic credit may be available for graduates who find employment in the trade and register as apprentices. Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) for further information.

For more information about career opportunities related to this program, contact Student Employment Services at a campus nearest you.

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Courses

- AV 101 Parts Information Systems
- COAP 109 Computer Applications
- COM 108 Industrial Communications
- COMP 170 Basic Computer Operation
- MEAS 107 Applied Trade Measurement
- PART 100 Parts Identification for Engines
- PART 101 Parts Identification for Electrical
- PART 102 Parts Identification for Vehicle Systems

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PART 103  Parts Identification for Lubrication and Drive Systems
PART 104  Common Tools
PART 105  Regulations and Safety
PART 106  Warehousing and Documentation
PART 107  Parts Training Enhancement

Tri-Trades Heavy Equipment, Truck and Transport, Agricultural Machinery Technician Applied Certificate

Location
• Delivery is subject to needs assessment.

Start date
• Varies

For more information, contact Janice Matwishyn at Janice.matwishyn@saskpolytech.ca or 306-765-1564

Duration
• 25 weeks

Admission requirements
• Grade 11 with one of the following mathematics: Foundations of Math 20, Pre-Calculus 20, Workplace and Apprenticeship Math 20 (Modified and General Math credits are not acceptable)
• English Language Requirement

Program overview

Note: This program is suspended effective July 1, 2018

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

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</tbody>
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Tri-Trades Heavy Equipment, Truck and Transport, and Automotive Service Technician Applied Certificate

Location
• Delivery is subject to needs assessment.

Start date
• This program is not available at this time.

For more information, contact Denise Hauta at Denise.hauta@saskpolytech.ca or 306-659-4034.

Duration
• 21 weeks

Admission requirements
• Grade 11 with one of the following mathematics: Foundations of Math 20, Pre-Calculus 20, Workplace and Apprenticeship Math 20 (Modified and General Math credits are not acceptable)
• English Language Requirement
Program overview

Note: This program is suspended effective July 1, 2018

The Tri-Trades Heavy Equipment, Truck and Transport, and Automotive Service Technician Applied Certificate program is based in Moose Jaw and Saskatoon. It is delivered on campus through continuing education (all Saskatchewan Polytechnic campuses), and off campus through regional colleges, Skills Training programming, and work site delivery.

Apprenticeship Credit

With this Saskatchewan Polytechnic credential, you may be eligible for credit towards apprenticeship training. To learn more, contact the Saskatchewan Apprenticeship and Trade Certification Commission (SATCC).

This program is not available at this time. For more information, contact Denise Hauta at Denise.hauta@saskpolytech.ca

Career Opportunities

Transfer credit

Many Sask Polytech students benefit from transferring course credit. You may be eligible to transfer credit to Sask Polytech or to another college or university. For how to Transfer credit to Sask Polytech see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-sask-polytech.aspx. For how to Transfer credit to another institution see https://saskpolytech.ca/admissions/get-credit/transfer-credit-to-another-institution.aspx

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</table>

Warehouse Worker

Certificate of Achievement

Location

- Online

Start date

- Varies

September until December
January until April

For more information about custom offerings of this program, contact Heather Mohr at heather.mohr@saskpolytech.ca or 306-659-4194.

Duration

- 8 weeks

Admission requirements

- Grade 10
- English Language Requirement

Program overview

Warehouse Worker is a self-paced, online program that provides you with the knowledge and skill development needed for entry level employment in the warehouse industry. Consisting of six online courses, the program can serve as the first step toward training in Parts Management Technician Certificate program.

Career Opportunities

Graduates are prepared for entry level positions as shippers or receivers in warehouses or parts departments.

Transfer credit

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<td>PART 197</td>
<td>Parts Documentation</td>
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<td>PART 198</td>
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# Course Descriptions

## ACCT 105 Accounting
Credit Units: 4.0  Course Hours: 64.0  
Equivalent Course(s):  ACCT 105CE, ACCT 122  
You will journalize and post transactions, prepare adjusting and closing entries, perform banking and petty cash functions, and prepare employee and employer payroll records.

## ACCT 122 Introductory Financial Accounting 1
Credit Units: 6.0  Course Hours: 96.0  
Equivalent Course(s):  ACCT 122CE  
Your studies will focus on an introduction to financial accounting designed to provide you with accounting skills to handle business transactions. The course will include bookkeeping techniques, accounting for a merchandising concern and control over cash and receivables. Accounting for payroll is also introduced in this course. ACCT 122 is a companion to ACCT 125 (Introductory Financial Accounting 2) which continues the study of basic financial accounting.

## ACCT 125 Introductory Financial Accounting 2
Credit Units: 5.0  Course Hours: 80.0  
Prerequisite(s):  ACCT 122  
Equivalent Course(s):  ACCT 125CE  
Your studies will focus on an introduction to financial accounting building on the skills you learned in ACCT 122 (Introductory Financial Accounting 1). Your studies include these topics: accounting for property, plant and equipment assets, current and non-current liabilities, partnerships, and corporations. In addition, you will learn to prepare a cash flow statement and perform ratio analysis.

## ACCT 136 Automated Accounting
Credit Units: 4.0  Course Hours: 64.0  
Prerequisite(s):  ACCT 105 or ACCT 122  
Equivalent Course(s):  ACCT 136CE, COAP 137  
Using an automated accounting software package, you will learn how to enter transactions into journals (general, purchase, payments, sales, cash receipts and payroll) and ledgers (general, accounts receivable, accounts payable and payroll), learn to account for inventory, and learn to prepare banking records. You will also prepare the initial automated accounting setup for use by a company.

## ACCT 170 Financial Accounting
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s):  ACCT 122, ACCT 191, BKPG 180  
You will learn how to apply accounting principles for non-profit organizations and service industries. The bookkeeping cycle (journal, ledger, trial balance and financial statements) for a service firm will be emphasized.

## ACCT 191 Accounting
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s):  ACCT 122, BUS 182  
You will be introduced to fundamental accounting concepts used in business. You will learn to appreciate the value of information presented in an organization's financial statements and will acquire and practice basic bookkeeping and financial statement preparation skills.

## ACCT 200 Managerial Accounting
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s):  ACCT 170  
Equivalent Course(s):  BKPG 181  
You will focus on the accounting cycle for municipal organizations and/or a not-for-profit. This includes some financial analysis, budgeting for operating revenues and expenses. Reading income statements and analyzing balance sheets will be emphasized.

## ACCT 201 Accounting
Credit Units: 3.0  Course Hours: 45.0  
You will be introduced to fundamental accounting concepts used in business. You will learn to appreciate the value of information presented in an organization's financial statements and will acquire and practice basic bookkeeping and financial statement preparation skills.

## ACCT 220 Intermediate Accounting 1
Credit Units: 7.0  Course Hours: 112.0  
Prerequisite(s):  ACCT 125  
Equivalent Course(s):  ACCT 220CE, ACP 212  
You will complete an in-depth study of generally accepted accounting principles as applied to accounting for current assets, capital assets, temporary and long-term investments. Both International Financial Reporting Standards (IFRS) and Accounting Standards for Private Enterprises (ASPE) are considered as accounting standards.
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<tr>
<td>ACCT 227</td>
<td>Cost Accounting 2</td>
<td>5.0</td>
<td>80.0</td>
<td>ACCT 226</td>
<td>ACCT 227CE, ACP 322</td>
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<tr>
<td>ACCT 236</td>
<td>Accounting Information Systems</td>
<td>4.0</td>
<td>64.0</td>
<td>ACCT 125</td>
<td>ACCT 236CE, ACP 451</td>
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<tr>
<td>ACCT 300</td>
<td>Accounting for Managers</td>
<td>3.0</td>
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<tr>
<td>ACCT 600</td>
<td>Introductory Financial Accounting 1</td>
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<tr>
<td>ACCT 601</td>
<td>Introductory Financial Accounting 2</td>
<td>3.0</td>
<td>45.0</td>
<td>ACCT 600</td>
<td></td>
</tr>
</tbody>
</table>

ACCT 221 Intermediate Accounting 2
Credit Units: 7.0  Course Hours: 112.0
Prerequisite(s): ACCT 220
Equivalent Course(s): ACCT 221CE, ACP 313

You will continue your studies of financial accounting begun in ACCT 220. Your studies will include current and long-term liabilities, shareholders' equity, derivative and hybrid instruments, share-based compensation, earnings per share, accounting for corporate income taxes and pensions, leases, changes in policy, estimates and correction of errors, and preparing the statement of cash flows. Both International Financial Reporting Standards (IFRS) and Accounting Standards for Private Enterprises (ASPE) are considered as accounting standards.

ACCT 225 Managerial Accounting
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s): ACCT 122
Equivalent Course(s): ACCT 225CE

Your studies will provide an introduction to the fundamentals of managerial accounting. You will examine cost concepts, manufacturing accounting, cost allocation and budgeting processes, and you will be able to select appropriate managerial accounting techniques for decision making.

ACCT 226 Cost Accounting 1
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s): ACCT 125
Equivalent Course(s): ACCT 226CE, ACP 221

You will study introductory concepts of cost accounting theory and practice. You will focus on the differences between cost accounting and financial accounting, various cost accounting terms, an introduction to costing systems, and responsibility accounting using master and flexible budgets.

ACCT 227 Cost Accounting 2
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s): ACCT 226
Equivalent Course(s): ACCT 227CE, ACP 322

Your studies will be a continuation of Cost Accounting 1 (ACCT 226). You will study non-routine decision making, cost allocation theory and methods, process costing, hybrid costing systems, inventory management and sales and input variances.

ACCT 236 Accounting Information Systems
Credit Units: 4.0  Course Hours: 64.0
Prerequisite(s): ACCT 125
Equivalent Course(s): ACCT 236CE, ACP 451

You will study the necessary theory and tools for understanding, analyzing, and designing computer-based accounting information systems at the introductory level. You will study the theory and participate in practical applications that support your studies as an accounting student. The course includes an introduction to the field of electronic commerce.

ACCT 300 Accounting for Managers
Credit Units: 3.0  Course Hours: 45.0

In your studies, you will gain the required knowledge of accounting and finance to perform your role as a manager. Your studies will include an introduction to essential accounting concepts and the development and interpretation of financial statements. You will also learn how to prepare operating and capital budgets, and how to compare budgeted and actual results throughout the organization’s fiscal year.

ACCT 600 Introductory Financial Accounting 1
Credit Units: 3.0  Course Hours: 45.0

Your studies will focus on an introduction to financial accounting designed to provide you with accounting skills to handle business transactions. The course will include bookkeeping techniques, accounting for a merchandising concern, control over cash and receivables, and accounting for payroll.

ACCT 601 Introductory Financial Accounting 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): ACCT 600

Your studies will focus on an introduction to financial accounting building on the skills you learned in ACCT 122 (Introductory Financial Accounting 1). Your studies include these topics: accounting for property, plant and equipment assets, current and non-current liabilities, partnerships, and corporations. In addition, you will learn to prepare a cash flow statement and perform ratio analysis.
Course Descriptions

ACCT 602 Intermediate Accounting 1
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  ACCT 601
You will complete an in-depth study of generally accepted accounting principles as applied to accounting for current assets, capital assets, temporary and long-term investments. Both International Financial Reporting Standards (IFRS) and Accounting Standards for Private Enterprises (ASPE) are considered as accounting standards.

ACCT 603 Intermediate Accounting 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  ACCT 602
You will continue your studies of financial accounting begun in ACCT 602. Your studies will include current and long-term liabilities, shareholders’ equity, derivative and hybrid instruments, share-based compensation, earnings per share, accounting for corporate income taxes and pensions, leases, changes in policy, estimates and correction of errors, and preparing the statement of cash flows. Both International Financial Reporting Standards (IFRS) and Accounting Standards for Private Enterprises (ASPE) are considered as accounting standards.

ACCT 604 Cost Accounting 1
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  ACCT 601
You will study introductory concepts of cost accounting theory and practice. You will focus on the differences between cost accounting and financial accounting, various cost accounting terms, an introduction to costing systems and responsibility accounting using master and flexible budgets.

ACCT 605 Accounting for Managers
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  MGMT 127
In your studies, you will gain the required knowledge of accounting and finance to perform your role as a manager. Your studies will include an introduction to essential accounting concepts, the development and analysis of financial statements, profit planning to aid management decisions, management of working capital, preparation of sales and cash budgets, and calculation of time value of money.

ADMN 103 Strategies for Dealing with Difficult Clients
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s):  ADMN 103CE
You will develop specific skills for interacting with difficult clients. Content will include strategies for dealing with resistant clients and strategies to defuse hostile situations.

ADMN 104 Contract Administration: Ethics, Safety and Cost Estimating
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s):  ADMN 225
You will be introduced to the roles and responsibilities of people involved in construction projects. You will consider professional ethics, liability, safety and contractual responsibility. You will learn the basic principles of cost estimating.

ADMN 105 Contract Administration: Specifications and Construction Accounting
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  ADMN 226
You will learn the fundamentals of specifying products for construction. You will also study simple construction accounting and finance.

ADMN 182 Introduction to Management
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  ADMN 120, ADMN 126
You will receive an introduction to management concepts, processes and techniques. You will focus on the components of management including planning, organizing, leading and controlling.

ADMN 201 Fund Development and Partnerships
Credit Units: 2.0  Course Hours: 30.0
You will study grant development and the importance of developing an effective proposal. You will examine fundraising from non-profit, and private sector perspectives. You will learn the importance of partnership between organizations.

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# Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
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</thead>
<tbody>
<tr>
<td>ADMN 204</td>
<td>Administrative Skills for Early Childhood Educators</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>ADMN 206</td>
<td>Leadership Development</td>
<td>4.0</td>
<td>64.0</td>
</tr>
<tr>
<td>ADMN 207</td>
<td>Essential Career Skills Development</td>
<td>2.0</td>
<td>32.0</td>
</tr>
<tr>
<td>ADMN 220</td>
<td>Organizational Behaviour</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>ADMN 224</td>
<td>Entrepreneurship</td>
<td>5.0</td>
<td>80.0</td>
</tr>
<tr>
<td>ADMN 251</td>
<td>Administrative Functions</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>ADMN 253</td>
<td>Industry Documentation</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>ADMN 255</td>
<td>Conflict Management</td>
<td>4.0</td>
<td>64.0</td>
</tr>
</tbody>
</table>

ADMN 204 Administrative Skills for Early Childhood Educators
Credit Units: 3.0 Course Hours: 45.0
Prerequisite(s): PRAC 181 or PRAC 105
Equivalent Course(s): ADMN 204CE, ADMN 249
You will be introduced to the administrative knowledge and skills that are useful as an Early Childhood Educator. You will study the operating structure of early childhood programs, policies and procedures and Saskatchewan Child Care Regulations. You will become familiar with regulations that govern First Nations early childhood programs. You will develop skills in using program evaluation tools, managing money and accurate recordkeeping. You will become familiar with the rights and responsibilities for employees within the Saskatchewan Employment Act.

ADMN 206 Leadership Development
Credit Units: 4.0 Course Hours: 64.0
Equivalent Course(s): ADMN 206CE, MGMT 124
Through obtaining an understanding of organizational and personal leadership principles and practices, you will develop your own philosophies about leading and following in the workplace. Additionally, you will have the opportunity to pursue your own leadership development through self-reflection and the development of a leadership development action plan. Key topics include: strengths-based leadership, leadership ethics, embracing diversity and inclusion, developing core leadership skills, developing others, and empowering followers.

ADMN 207 Essential Career Skills Development
Credit Units: 2.0 Course Hours: 32.0
You will identify and develop the knowledge, skills and behaviours appropriate for conducting a successful employment search. You will discover your qualifications and how to promote yourself to employers.

ADMN 220 Organizational Behaviour
Credit Units: 4.0 Course Hours: 60.0
Equivalent Course(s): ADMN 220CE, BUS 182
You will study human behaviour in organizations and develop the skills needed to deal with people at work. Your studies include content on individual behaviour, values, interpersonal relationships and communications, groups and team dynamics, organizational culture, leadership, and change. You will study these aspects of human behavior within the context of diverse formal organizations.

ADMN 224 Entrepreneurship
Credit Units: 5.0 Course Hours: 80.0
Prerequisite(s): MKTG 120
Equivalent Course(s): ADMN 224CE
You will learn the specifics of organizing and opening a small business, including legislation, licenses, types of businesses and location. The course will end with an assignment that performs all the steps up to the opening of your business including the development of a Business Plan.

ADMN 251 Administrative Functions
Credit Units: 3.0 Course Hours: 45.0
Prerequisite(s): CAPL 145
You will become familiar with the administrative functions required of addictions service agencies. You will examine organizational structure, management styles, working with community-based organizations and measuring outcomes. You also practice time management and job search skills.

ADMN 253 Industry Documentation
Credit Units: 2.0 Course Hours: 30.0
Prerequisite(s): ADMN 251
You will learn how to write formal business letters, memos and informal agency reports for staff presentations. You will also learn how to prepare and manage electronic formal reports such as research and form reports for government and human service agencies.

ADMN 255 Conflict Management
Credit Units: 4.0 Course Hours: 64.0
Equivalent Course(s): ADMN 255CE, DRCP 221
Your studies will focus on an introduction to conflict resolution, designed to provide you with interest-based conflict resolution models and primary interpersonal skills to handle workplace conflicts. This course is designed not only as an introduction to developing skills in managing conflict, but also providing organizational leaders with skills to manage conflict. You will obtain insights and be educated in conflict theory, negotiation strategy, needs grounding related to basic interpersonal communication and management skills, such as rapport building, empathetic listening, behaviour modeling, reframing, problem solving and decision making.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Course Description</th>
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</thead>
<tbody>
<tr>
<td>ADMN 258</td>
<td>Project Management and Estimating</td>
<td>3.0</td>
<td>45.0</td>
<td>ADMN 105, PROJ 228*</td>
<td>You will be introduced to estimating and control concepts within construction project management. You will practice your skills by using project management software and spreadsheets. The course focuses on all aspects of a project, from its initiation to its close out. You will use your skills to plan a construction project.</td>
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<td>ADMN 285</td>
<td>Food Service Planning and Layout</td>
<td>3.0</td>
<td>45.0</td>
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<td>You will be introduced to the complexities of designing, planning, and developing food service operations that make optimum use of money, materials, manpower and equipment to ensure customer and/or user satisfaction. You will study design, layout, workflow, equipment, food service functional areas, food production and delivery systems, and atmosphere development. You will develop/upgrade a food service facility using the design/planning process.</td>
</tr>
<tr>
<td>ADMN 286</td>
<td>Administration</td>
<td>3.0</td>
<td>45.0</td>
<td>PRAC 385</td>
<td>You will receive an overview of the governance, organizational structures, funding mechanisms, and operations of human services agencies. You will learn the legal and employment considerations for clients, workers, and employers in human services. You will learn the principles of volunteer management and the process of writing effective proposals.</td>
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<tr>
<td>ADMN 288</td>
<td>Industrial Administration and Plant Management</td>
<td>2.0</td>
<td>30.0</td>
<td>ENGP 103, ENGP 297</td>
<td>You will study the factors and codes governing plant designs and legislation as well as the engineering and administration involved in plant erection or modifications. You will learn management techniques related to personnel, planning, plant maintenance and safety programs.</td>
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<tr>
<td>ADMN 300</td>
<td>Organizational Behaviour and Conflict Management</td>
<td>3.0</td>
<td>45.0</td>
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<td>You will be introduced to theories of human behaviour in organizations and develop skills to manage people in the workforce. Your studies will include individual behaviour, values, interpersonal relationships and communications as well as group and team dynamics. You will develop conflict management skills.</td>
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<tr>
<td>ADMN 302</td>
<td>Construction Accounting and Finance</td>
<td>3.0</td>
<td>45.0</td>
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<td>You will apply typical business knowledge and skills to the financial management of a construction project.</td>
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<tr>
<td>ADMN 303</td>
<td>Organizational Behaviour</td>
<td>3.0</td>
<td>45.0</td>
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<td>You will study human behaviour in organizations and develop the skills needed to deal with people at work. The course content includes individual behaviour, values, interpersonal relationships and communications, groups and team dynamics, organizational culture, leadership, and change. Your studies of human organizational behaviour will focus on diverse formal organizations.</td>
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<tr>
<td>ADMN 600</td>
<td>Organizational Behaviour</td>
<td>3.0</td>
<td>45.0</td>
<td>MGMT 126</td>
<td>You will study human behaviour in organizations and develop the skills needed to deal with people at work. The course content includes individual behaviour, values, interpersonal relationships, group and team dynamics, and organizational culture. Your studies of human organizational behavior will focus on diverse formal organizations.</td>
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<tr>
<td>ADMN 601</td>
<td>Introduction to Procurement</td>
<td>3.0</td>
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<td>You will study the key concepts of purchasing for supply chain management. You will study the acquisition and sale of goods, services, materials, the purchasing cycle, and the integration and alignment of the purchasing function with an organizational strategy. Your studies will include a comparative analysis of centralized purchasing strategies, identification of best practices, and purchasing tools and techniques.</td>
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</table>
ADMN 602 Strategic Procurement
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): ADMN 601
You will analyze the relationship between organizational goals and strategic procurement decisions. You will use spend analytics to determine the cost of ownership, manage vendor relationships and determine the cost of maintaining these relationships. You will develop approaches to analyze an organization's contract management and category management strategies.

ADTG 220 Auditing
Credit Units: 5.0   Course Hours: 80.0
Prerequisite(s): ACCT 125
Equivalent Course(s): ACP 430, ADTG 220CE
Your studies will include an introduction to auditing, its objectives and reports, the types of evidence and documentations required, the study of internal control, and audit sampling. You will study the processes of the audit of revenue and collections and acquisitions and expenditures. You will acquire these skills through your participation in a combination of classroom instruction, independent learning and practical exercises.

ADTG 600 Auditing
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): ACCT 601
Your studies will include an introduction to auditing, its objectives and reports, the types of evidence and documentations required, the study of internal control, and audit sampling. You will study the processes of the audit of revenue and collections and acquisitions and expenditures. You will acquire these skills through your participation in a combination of classroom instruction, independent learning and an audit simulation project.

AGMC 100 Agricultural Machinery 1
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): SAFE 105*
You will receive an introduction to agricultural equipment and drive systems. You will become familiar with the function, operation and adjustment of selected equipment including tillage, spraying, cutting, harvesting, baling and forage equipment. You will also learn about tractor performance, driveline components, light duty transmissions, clutches and differentials.

AGRI 100 Agricultural Business Applications
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): AGMC 100, GPS 100*
You will gain an understanding of the hardware, software and management strategies of precision agriculture. Areas of study will include GIS, GPS, remote sensing, differential correction, yield monitoring, and grid mapping. You will use agriculture solutions software.

AGMC 101 Precision Agriculture 1
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): AGMC 100, GPS 100*
Your studies will include a general overview of the farm machinery and technology used in Western Canada. You will become familiar with the uses and purposes of tractors and combines as well as tillage, seeding, spraying and forage equipment. You will also study precision farming principles and components.

AGMC 204 Agricultural Machinery 2
Credit Units: 4.0   Course Hours: 60.0
Prerequisite(s): AGMC 100
You will study the equipment used in seeding, spraying and harvesting. You will also study some of the monitors and GPS systems used on the equipment as well as precision farming practices, components and software.

AGMC 205 Harvesting, Hay and Forage Machinery
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): AGMC 100
You will examine the theory and operation of harvesting, hay and forage equipment and related attachments. Precision farming as it relates to harvesting equipment will be covered.

AGMC 206 Precision Agriculture 2
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): AGMC 101
You will learn how to use a personal computer as a small business tool to conduct financial, statistical, and marketing research. You will discuss the process of business idea generation and opportunity identification, feasibility analysis and the importance of business planning. The course content includes methods of getting into business and forms of ownership.
AGRI 101 Survey of Agribusiness
Credit Units: 3.0    Course Hours: 45.0
You will discuss the nature of agricultural business from both a local and an international perspective. You will explore the global policy framework as well as national laws and programs which support agricultural enterprise. You will investigate selected sectors of the industry in relation to the various perspectives.

AGRI 102 Agricultural Entomology
Credit Units: 3.0    Course Hours: 45.0
You will discuss beneficial insects and insect pests that affect crops. You will focus on the fundamentals of leafcutters, pollination, disease and parasite control.

AGRI 103 Agronomy
Credit Units: 3.0    Course Hours: 45.0
You will examine the basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems and seeding rates. Cereal, pulse and oilseed crop production will be of focus.

AGRI 104 Farm Financial Records
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): AGRI 100, MATH 114
You will set up and use computerized farm record keeping software complete sample farm records. You will develop and analyze a farm business plan, and review various recordkeeping systems while ensuring data integrity and security.

AGRI 105 Principles of Crop Production
Credit Units: 3.0    Course Hours: 45.0
You will be introduced to land preparation, crop selection and crop establishment. You will discuss soil characteristics, and plant morphology in relation to chemical application and harvesting. The major Canadian crops will be discussed.

AGRI 106 Weed Management
Credit Units: 3.0    Course Hours: 45.0
You will identify noxious and common weeds, examine methods of control, and evaluate herbicide performance and tolerance. You will consider the characteristics, formulations and application methods of herbicides and insecticides. Safety measures and proper handling of chemicals will be addressed.

AGRI 200 Principles of Sustainable Agriculture
Credit Units: 3.0    Course Hours: 45.0
You will discuss the principles of sustainable agriculture. You will learn about soil and water management and their application in sustainable agricultural systems. You will explore sustainable crop production, including the pros and cons. You will also examine biodiversity and the significance of public trust to agriculture.

AGRI 300 Agricultural Intelligence
Credit Units: 3.0    Course Hours: 45.0
You will study the computer technology used with agricultural machinery. You will become familiar with the programs used to monitor, assess and diagnose field and crop conditions. You will also learn about intellectual property and data security strategies.

AGRI 301 Grain Handling, Storage and Conveyance
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): GIS 101
You will explore topics in harvesting, storage and quality evaluation of crops, the types of conveyance systems and intellectual property. You will also examine sequencing and maintaining crops while in storage and collecting and protecting intellectual property.

AGRI 302 Post-Harvest Food Production
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): ECON 200
You will examine the post-harvest system activities and operations extending from harvest to consumption. You will also explore the technical and economic activities including storage, processing, transporting and quality control.

AIR 104 Air Conditioning
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): RFRG 104, SAFE 104
You will study heating system components and equipment. You will also discuss ventilation and humidification.
AIR 150 Air Conditioning and Heating  
Credit Units: 2.0  
Course Hours: 30.0  
You will learn the theory and operations of heating, ventilation and air conditioning (HVAC) systems and the components they use. You will diagnose and repair the HVAC systems and their controls.

AIR 171 Air Conditioning and Heating  
Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s):  AIR 170  
You will learn the theory and operations of heating, ventilation and air conditioning (HVAC) systems and the components they use. You will diagnose and repair the HVAC systems and their controls.

AIR 183 Air Conditioning and Heating  
Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s):  AIR 150  
You will focus on the theory of operation of the heating, ventilation and air conditioning (HVAC) systems and their components. You will diagnose and repair the HVAC systems and associated controls. You will be certified in the Canada’s Ozone Layer Protection Awareness program for air conditioning and refrigeration systems.

AIR 288 Air Conditioning  
Credit Units: 7.0  
Course Hours: 100.0  
Prerequisite(s):  THER 284*  
You will learn what is required to maintain human comfort in residential and commercial buildings. Using a step-by-step approach, you will design a complete year-round air conditioning system for an institutional building while considering available energy conservation techniques.

ANAT 100 Body Systems  
Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s):  ANAT 100CE, APHY 188, APHY 189  
You will receive a basic introduction to body systems. You will study the structure of organs and systems in the human body, and how they function efficiently.

ANAT 163 Dental Anatomy  
Credit Units: 4.0  
Course Hours: 60.0  
Your studies will focus on the basic anatomy of permanent and deciduous teeth. You will study the eruption sequence of the dentitions, the basic structures of the oral cavity and supporting dental structures, and three different numbering systems for identifying teeth.

ANAT 164 Embryology and Histology  
Credit Units: 2.0  
Course Hours: 30.0  
Prerequisite(s):  BIOL 100, BIOL 101, CHEM 102, CHEM 103, ENGL 101, ENGL 102, PSYC 102, PSYC 103, SOCI 171, STAT 100  
You will develop an understanding of the embryonic development of the face and oral cavity. You will study the development, microscopic anatomy and macroscopic anatomy of the teeth and supporting structures. You will also study the anomalies of these structures.

ANAT 166 Anatomy and Physiology of the Head and Neck  
Credit Units: 2.0  
Course Hours: 30.0  
Prerequisite(s):  BIOL 100, BIOL 101  
You will study the superficial anatomy, bones and musculature of the head and neck. You will discuss the blood vessels, lymphatic structures and nerves which supply the head and neck including the maxillary and mandibular dentition.

ANAT 167 Anatomy and Physiology 1  
Credit Units: 5.0  
Course Hours: 70.0  
Equivalent Course(s):  ANAT 167CE  
You will study the human body and how it functions to maintain homeostasis. Your studies will include the chemical, cellular and tissue levels of organization. You will focus on the integumentary, cardiovascular, respiratory, nervous, endocrine, and lymphatic systems.

ANAT 183 Vertebrate Anatomy and Physiology  
Credit Units: 3.0  
Course Hours: 45.0  
Corequisite(s):  ANAT 184  
You will study the structure and function of the vertebrate body. You will examine animal cell and tissue types, and organ systems (including the gross anatomical features and function of organs of the integumentary, skeletal, muscular, nervous, digestive, respiratory, circulatory, endocrine and reproductive systems). You will also be introduced to the classification of animals and the characteristics of the vertebrates.

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# Course Descriptions

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<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Corequisite(s)</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 184</td>
<td>Vertebrate Anatomy and Physiology Lab</td>
<td>3.0</td>
<td>45.0</td>
<td>ANAT 183</td>
<td></td>
<td>You will use the cat as a model of vertebrate anatomy and physiology relating structure to function. You will examine animal cell and tissue types, and organ systems (including the gross anatomical features and function of organs of the integumentary, skeletal, muscular, nervous, digestive, respiratory, circulatory, endocrine and reproductive systems). You will also be introduced to classifying animals and the characteristics of the vertebrates.</td>
</tr>
<tr>
<td>ANAT 266</td>
<td>Anatomy Review</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td>NURS 246*</td>
<td>You will briefly review human anatomy and anatomical terminology in the context of perioperative nursing.</td>
</tr>
<tr>
<td>ANAT 267</td>
<td>Anatomy and Physiology 2</td>
<td>4.0</td>
<td>60.0</td>
<td>ANAT 167</td>
<td></td>
<td>You will continue to study the human body, focusing on how its structures function to maintain homeostasis. You focus on the structures and functions of the urinary, sensory, digestive, skeletal, muscular, and reproductive systems.</td>
</tr>
<tr>
<td>ANES 262</td>
<td>Local Anesthesia</td>
<td>2.0</td>
<td>30.0</td>
<td>DHYG 276</td>
<td></td>
<td>Through independent study, lectures, class discussions, practice predication learning activities, and preclinical laboratories, you will learn strategies to manage client pain and discomfort, including the administration of intraoral local anesthesia.</td>
</tr>
<tr>
<td>ANES 279</td>
<td>Veterinary Anesthesia 1</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>APHY 281, VETR 100, VETR 190, VETR 191, VETR 287, PHAR 203*, VETR 293*</td>
<td>You will be introduced to common anesthetic drug classes, analgesics and anesthetic equipment used in veterinary practice. You will learn the basics of monitoring animals during anesthesia and be able to describe evaluation and management of pain.</td>
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<tr>
<td>ANES 281</td>
<td>Veterinary Anesthesia 2</td>
<td>2.0</td>
<td>30.0</td>
<td>ANES 279, PHAR 203, VETR 293</td>
<td></td>
<td>You will be introduced to the principles of anesthetic management. You will discuss parameters of pre-anesthetic management and post-operative care. You will learn how to intubate and apply blocks to control pain.</td>
</tr>
<tr>
<td>ANES 282</td>
<td>Veterinary Anesthesia 3</td>
<td>5.0</td>
<td>80.0</td>
<td>ANES 281, PHAR 281, PRAC 284</td>
<td>CLIN 238, CLIN 239, VETR 289</td>
<td>You will develop anesthetic protocols for small and large animal species undergoing various surgical procedures. You will apply modifications of protocol based on patient condition and health status. You will be responsible for the care, preparation and post-surgical care of cases assigned to you.</td>
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<tr>
<td>ANIM 182</td>
<td>Care and Management of Laboratory Animals</td>
<td>2.0</td>
<td>30.0</td>
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<td></td>
<td>You will study animal production, animal diets, research protocols and care and management. Laboratory experiences will allow you to practice handling, injections and sample collection in small laboratory species.</td>
</tr>
</tbody>
</table>
ANIM 282 Care and Management of Domestic Animals
Credit Units: 2.0   Course Hours: 30.0
Prerequisite(s): VETR 187
Equivalent Course(s): ANIM 181
You will study commonly performed large animal techniques. You will learn on models and then progress to live animals at off-campus research and teaching facilities. Through an online component, you will learn about the ethical guidelines that govern use of live animals in teaching and research.

ANLT 200 Food Security
Credit Units: 3.0   Course Hours: 45.0
This course explores global as well as local issue in food production, processing, distribution, and consumption. Students will examine food prices and food policy analysis; agricultural subsidies; international trade; and food interventions. Students will also explore the overall effect of income, policies, markets and prices as they affect food security.

ANLT 300 Applied Critical Thinking and Logic
Credit Units: 3.0   Course Hours: 45.0
You will learn basic concepts and methods of critical thinking and logic. You will apply these concepts and methods to analyze and evaluate arguments regarding projects or problems from mathematics, science and construction science management.

ANLT 301 Globalization
Credit Units: 3.0   Course Hours: 45.0
You will examine the many elements that must be analyzed when considering the global business environment. You will be introduced to global and national business environments, international trade and investment, the international financial system and international business management.

ANLT 302 Analytical Decision Making
Credit Units: 3.0   Course Hours: 45.0
You will learn the basic concepts, methods and tools of critical thinking and logic. You will apply these tools to analyze ordinary and famous decisions made in the past and to make sound business decisions for the future.

ANLT 400 Business Analytics
Credit Units: 3.0   Course Hours: 45.0
You will learn the essential skill of estimating costs and benefits for a process change. Your studies will include the development of theoretical knowledge and practical skills in these areas: querying from existing data sources, outlining assumptions, developing cost-benefits models, analyzing outcomes over multiple years, separating assumptions from the model, and developing flexible formulae. A component of your studies will include an introduction to relational databases and advanced use of spreadsheet software.

ANLT 600 Business Mathematics and Data Analytics
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): ANLT 600
You will learn the essential skill of estimating costs and benefits for a process change. Your studies will include the development of theoretical knowledge and practical skills in these areas: querying from existing data sources, outlining assumptions, developing cost-benefits models, analyzing outcomes over multiple years, separating assumptions from the model, and developing flexible formulae. A component of your studies will include an introduction to relational databases and advanced use of spreadsheet software.

ANLT 601 Data Analytics and Business Intelligence
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): ANLT 600
You will learn how to analyze data from a business intelligence perspective. You will analyze large data sets to answer strategic business questions. You will connect to a variety of data sources and learn about the most effective techniques to communicate statistical data to a business.

APHY 100 Anatomy and Physiology 1
Credit Units: 4.0   Course Hours: 60.0
Equivalent Course(s): APHY 162
You will develop an understanding of the human body, its structures and how it functions to maintain homeostasis. You will acquire knowledge of the interactions of the body’s structures including cells, tissues, organs, and certain organ systems. You will learn the structures and functions of the integumentary, skeletal, muscular, cardiovascular, and respiratory systems.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Corequisite(s)</th>
<th>Equivalent Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APHY 101</td>
<td>Anatomy and Physiology 1 – Theory</td>
<td>3.0</td>
<td>45.0</td>
<td>APHY 102</td>
<td>APHY 190</td>
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<td></td>
<td>You will learn basic applied anatomy and physiology of domestic animals. You will study the relationship between structure and function beginning at the cellular level through to organ systems. Organ systems covered are the skeletal, muscular, integument, respiratory and cardiovascular systems.</td>
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<tr>
<td>APHY 102</td>
<td>Anatomy and Physiology 1 – Practical</td>
<td>2.0</td>
<td>30.0</td>
<td>APHY 101</td>
<td>APHY 190</td>
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<td></td>
<td>You will learn basic applied anatomy and physiology of domestic animals through dissection, use of models and physiological tests. Organ systems studied include the skeletal, muscular, integument, respiratory and cardiovascular systems.</td>
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<tr>
<td>APHY 160</td>
<td>Essentials of Human Anatomy and Physiology</td>
<td>3.0</td>
<td>45.0</td>
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<td>APHY 189</td>
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<td>You will develop a basic understanding of the anatomy and physiology of the human body. You will discuss the concept of homeostasis. You will acquire knowledge of cells, tissues, organs and all the organ systems of the human body.</td>
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<tr>
<td>APHY 162</td>
<td>Anatomy and Physiology 1</td>
<td>4.0</td>
<td>62.0</td>
<td>ANAT 160, APHY 162CE, NURS 111</td>
<td>ANAT 160, APHY 162CE, NURS 111</td>
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<td>You will develop an understanding of the human body, its structures and how it functions to maintain homeostasis. You will acquire knowledge of the interactions of the body's structures including cells, tissues, organs, and certain organ systems. You will learn the structures and functions of the integumentary, skeletal, muscular, cardiovascular, and respiratory systems.</td>
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<tr>
<td>APHY 164</td>
<td>Anatomy and Physiology 1</td>
<td>3.0</td>
<td>45.0</td>
<td>APHY 164CE</td>
<td>APHY 164CE</td>
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<td>You will be introduced to the anatomical structure and physiological function of the human body. Your studies will focus on the basic organization of the body concentrating on the respiratory system, cardiovascular system and nervous system.</td>
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<tr>
<td>APHY 165</td>
<td>Anatomy and Physiology 2</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>APHY 165CE</td>
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<td>You will study the structure and function of the normal human body. Your studies will include the endocrine, immune, urinary, reproductive and digestive systems. You will also study the integumentary, skeletal and muscular system.</td>
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<tr>
<td>APHY 189</td>
<td>Anatomy and Physiology</td>
<td>3.0</td>
<td>40.0</td>
<td></td>
<td>APHY 188, APHY 189CE, NURS 111</td>
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<td>You will be introduced to the study of the human body and how it functions efficiently. You will study various body systems that are of critical importance for the promotion and maintenance of health.</td>
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<tr>
<td>APHY 191</td>
<td>Anatomy and Physiology 1</td>
<td>3.0</td>
<td>42.0</td>
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<td>APHY 191CE</td>
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<td>You will explore the structure and function of organs and systems in the normal human body. Your studies will focus on the integumentary, skeletal, muscular, nervous and endocrine systems.</td>
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<tr>
<td>APHY 200</td>
<td>Anatomy and Physiology 2</td>
<td>4.0</td>
<td>60.0</td>
<td>APHY 100</td>
<td>APHY 165CE</td>
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<td>You will continue to study the anatomy and physiology of the human body, focusing on how its structures function to maintain homeostasis. You will learn the structures and functions of the endocrine, urinary, nervous, digestive, sensory, and reproductive systems.</td>
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<tr>
<td>APHY 262</td>
<td>Anatomy and Physiology 2</td>
<td>4.0</td>
<td>62.0</td>
<td>APHY 162</td>
<td>ANAT 265, APHY 262CE, NURS 111</td>
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<td></td>
<td>You will continue to study the anatomy and physiology of the human body, focusing on how its structures function to maintain homeostasis. You will learn the structures and functions of the endocrine, urinary, nervous, digestive, sensory, and reproductive systems.</td>
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</tbody>
</table>
# Course Descriptions

## APHY 280 Anatomy and Physiology 2
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): APHY 101, APHY 102  
Your studies will focus on the structure and function of the digestive system, the nervous system and sensory organs. The lab will provide hands-on study of important physiological principles and anatomical structures through models and dissection of preserved specimens.

## APHY 281 Anatomy and Physiology 3
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): APHY 280*  
Your studies will focus on the structure and function of the endocrine, urinary, reproductive, blood and lymphatic systems of domestic animals. The lab will provide hands-on study of important physiological principles and anatomical structures through models and dissection of preserved specimens.

## APHY 282 Anatomy and Physiology 2
Credit Units: 3.0  
Course Hours: 38.0  
Prerequisite(s): APHY 191  
Equivalent Course(s): APHY 282CE  
Building on the knowledge gained in APHY 191 (Anatomy and Physiology 1), you will continue your study of the structure and function of the normal human body. Your studies will focus on the cardiovascular, immune, respiratory, digestive, urinary and reproductive systems.

## APIC 300 Apiculture
Credit Units: 3.0  
Course Hours: 45.0  
You will be introduced to the science and practice of beekeeping. You will explore the development, morphology, physiology, genetics and social behaviour of the honey bee, as well as beekeeping equipment, management of bees, honey production, bee diseases and the role of bees in pollination.

## ASRT 180 Assertiveness Training
Credit Units: 1.0  
Course Hours: 15.0  
You will focus on the cognitive and behavioural aspects of assertiveness. You will examine how you approach conflict. You will also discuss and practice specific techniques for successful conflict management.

## ATBD 100 Body Components, Accessories and Trim
Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s): ATMC 120  
Your studies will help you develop skills in adjustment and replacement of vehicle body components, accessories and trim.

## AUDI 100 Introduction to Audio
Credit Units: 3.0  
Course Hours: 42.0  
Your studies will provide an introduction to the fundamentals of audio production. You will cover basic sound theory and learn about audio acquisition equipment including mixing consoles, audio recorders, CD players, types of microphones and basic transducer technology.

## AUDI 101 Audio Recording
Credit Units: 2.0  
Course Hours: 33.0  
Prerequisite(s): AUDI 100  
Building on the knowledge you acquired from AUDI 100 (Introduction to Audio), you will develop skills in the practical use and operation of audio equipment and systems. You will practice recording a variety of sounds in various locations.

## AUDI 102 Audio Production 1
Credit Units: 3.0  
Course Hours: 40.0  
Prerequisite(s): AUDI 101, COMP 102  
You will combine the knowledge and skills you developed from AUDI 100 (Introduction to Audio) and AUDI 101 (Audio Recording). You will edit, master and package an audio project.

Register online at saskpolytech.ca or call 1-866-467-4278
Course Descriptions

**AUDI 103 Audio Recording**
Credit Units: 3.0  Course Hours: 45.0
You will develop skills in the practical use and operation of audio equipment and recording systems. You will practice recording a variety of sounds in various locations. Your studies will provide an introduction to the fundamentals of audio production. You will cover basic sound theory and learn about audio acquisition equipment including portable recorders, computer software recording, types of microphones, basic transducer technology and signal flow paths.

**AUDI 200 Audio Production**
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  DSGN 201*
Building on previous skills gained in other courses, you will create various audio projects. You will produce a variety of soundtracks that will help you become proficient in the creative use of sound.

**AUDI 201 Introduction to Digital Audio Workstations**
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  AUDI 103
You will learn how to use a Digital Audio Workstation (DAW). Your studies will familiarize you with the interface and help you attain skills in capturing, editing, layout and mixing. You will combine this knowledge and skills with those you developed in AUDI 103 Audio Recording.

**AUDI 202 Audio Processing and Mixing**
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  AUDI 201
You will assimilate audio processing tools and techniques used to alter and shape sounds. You will use various filters and effects to alter audio signals to create clean and effective sound and validate what processor to use with corresponding audio. Your critical listening skills will improve through the mixing exercises.

**AUDI 203 Live Audio Production**
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  AUDI 200
You will learn to assemble an audio production system, demonstrate operational techniques and evaluate sound system specifications and requirements for live events and productions.

**AV 100 Media Hardware Operation and Maintenance**
Credit Units: 2.0  Course Hours: 36.0
You will develop the skills and knowledge needed to use a variety of presentation equipment. You will learn how to perform basic maintenance on the most commonly used equipment.

**AV 101 Parts Information Systems**
Credit Units: 2.0  Course Hours: 25.0
Equivalent Course(s):  PART 194
Your studies will focus on the different methods of locating and identifying components. The course content includes a variety of mediums (printed manuals, microfiche, computerized catalogues and Web-based information systems).

**AV 200 Lighting**
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  VDEO 101*
You will learn about light and shadows and how they affect perception. You will learn about the deliberate use of lighting techniques for specific communication purposes. You will develop the skills to manipulate light and colour for both technical and aesthetic purposes. You will apply the techniques in a variety of situations.

**AVIA 180 Theory of Flight**
Credit Units: 2.0  Course Hours: 30.0
You will study topics relevant to flight theory and aircraft design including flight control systems, stability, air flow characteristics, and forces acting on an aircraft.

**AVIA 181 Navigation**
Credit Units: 3.0  Course Hours: 45.0
You will study Visual Flight Rules (VFR) navigation including flight planning procedures for all phases of flight. You will use all relevant information to prepare navigation logs, flight plans, and weight and balance. Your studies will include the use of various radio aids to navigation.

**AVIA 182 Meteorology 1**
Credit Units: 3.0  Course Hours: 45.0
You will study properties of the atmosphere and the conditions that produce and modify weather. Through practical exercises, you will interpret forecast weather conditions and its effects on the pilot and the aircraft.

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# Course Descriptions

## AVIA 183 Flight Operations 1
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
You will study aircraft performance and operational procedures.

## AVIA 184 Canadian Aviation Regulations 1
- **Credit Units:** 1.0  
- **Course Hours:** 15.0  
You will study the Canadian Aviation Regulations (CARs) with emphasis on Visual Flight Rules (VFR) procedures and requirements.

## AVIA 186 Meteorology 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
You will study weather issues related to Instrument Flight Rules (IFR) flying. Through practical exercises, you will analyze forecast and observed weather conditions and its effects on the pilot and the aircraft.

## AVIA 191 Cultural Awareness
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
Equivalent Course(s): AVIA 189  
You will examine Canadian society from a sociological perspective. The elements of culture and differences between cultures will be discussed. Social stratification in Canadian culture and how the stratification impacts various cultural groups will also be examined. Other topics include race, ethnicity and prejudice. Barriers to intercultural communication will also be included.

## AVIA 192 Advanced Aircraft Types
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
You will study engine, electrical, fuel, pneumatic, hydraulic and mechanical systems as they relate to aircraft. The course includes type-specific ground schools on twin-engine piston and turbine aircraft.

## AVIA 193 Flight Operations 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
You will study operational flying procedures using a variety of aircraft in numerous operational scenarios. You will examine regulations pertaining to the air transport of dangerous goods. The knowledge learned will help prepare you for the Transport Canada (TC) individual Aircraft Type Rating (IATRA) examination.

## AVIA 280 Canadian Aviation Regulations 2
- **Credit Units:** 1.0  
- **Course Hours:** 15.0  
You will learn how to apply for an Air Operator Certificate (AOC) and examine company operations manuals and specifications. This course includes CARs sections applicable to 702, 703, 704 and 705 operations. Commercial air carrier operations and CARs requirements for flight safety will be emphasized.

## BAKE 106 Bakery 1 (Theory)
- **Credit Units:** 1.0  
- **Course Hours:** 15.0  
You will learn the basic principles of baking, baking ingredients and their uses. You will learn guidelines and procedures for making yeast dough products and quick breads.

## BAKE 109 Bakery 2 (Practical)
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
You will apply the principles and procedures you learned in BAKE 115 (Bakery 2 Theory). You will mix pie dough; make pie fillings, baked and unbaked pies; prepare puff pastry products and éclair paste and its products.

## BAKE 112 Bakery (Theory)
- **Credit Units:** 1.0  
- **Course Hours:** 19.0  
You will be introduced to the fundamental principles and procedures for preparing various yeast doughs, pastries, quick breads, pies and pie fillings. You will learn about the different product ingredients and their mixing methods. You will also learn the procedures for making each of these baked products.

## BAKE 113 Bakery Production (Practical)
- **Credit Units:** 4.0  
- **Course Hours:** 61.0  
Prerequisite(s): BAKE 112*  
You will apply the principles and procedures learned in BAKE 112 (Bakery - Theory). You will prepare quick breads, make pie fillings, make baked and unbaked pies, prepare puff pastry and its products, and produce and prepare a wide variety of breads, rolls and Danish pastries.

## BAKE 114 Bakery 1 (Practical)
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
You will apply the principles and procedures you learned in BAKE 106 (Bakery 1 Theory). You will prepare yeast dough products and quick breads.
# Course Descriptions

**BAKE 115 Bakery 2 (Theory)**
Credit Units: 1.0  Course Hours: 15.0
You will focus on the principles and procedures for making pies, pie fillings, puff pastry and éclair paste products.

**BAKE 116 Bakery 3 (Theory)**
Credit Units: 1.0  Course Hours: 15.0
You will focus on the principles and procedures for making a variety of baked products. These include cakes, icings, glazes and fillings, basic custards and creams, puddings, Bavarians, mousses and cookies.

**BAKE 117 Bakery 3 (Practical)**
Credit Units: 3.0  Course Hours: 45.0
You will apply the principles and procedures you learned in BAKE 116 (Bakery 3 Theory). You will prepare a variety of desserts. These include vanilla custard sauce, vanilla pastry cream, baked custard, decorated cakes, mousses, Bavarians and cookies.

**BAR 181 Introduction to Wine**
Credit Units: 2.0  Course Hours: 24.0
Your studies will focus on the origins of wine and principles of production. You will also receive information about names, characteristics and suggestions for creating a wine list.

**BAR 200 Bar, Wine and Spirits**
Credit Units: 4.0  Course Hours: 60.0
You will learn about the origin of wine, beer and spirits and the production of alcoholic beverages. You will acquire the knowledge and develop the skills needed to produce and serve quality beverages in a responsible manner. You will put your knowledge to use during the Wine & Dine project.

**BAR 280 Bar Management and Mixology**
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): BAR 183
You will acquire the knowledge and develop the skills needed to produce and serve quality beverages in a responsible manner. You will also learn how to control product costs in a commercial establishment.

**BCOM 100 Business Communications 1**
Credit Units: 4.0  Course Hours: 64.0
Equivalent Course(s): BCOM 100CE, BCOM 101
You will apply grammatical rules and principles in preparation for writing routine business correspondence.

**BCOM 102 Business Communications 2**
Credit Units: 4.0  Course Hours: 64.0
Prerequisite(s): BCOM 100
Equivalent Course(s): BCOM 102CE
You will continue to develop effective business writing skills. You will write routine business correspondence and apply proofreading and editing skills.

**BCOM 103 Interpersonal Communications**
Credit Units: 3.0  Course Hours: 48.0
Equivalent Course(s): BCOM 103CE, BCOM 121, COMM 112, COMM 291, HUMR 186
The course will provide opportunities for you to develop important skills used to facilitate effective interpersonal communication in the workplace. Your studies will focus on the development of active listening skills, conflict resolution strategies, verbal skills, and problem-solving strategies.

**BCOM 105 Business Communications**
Credit Units: 5.0  Course Hours: 80.0
Equivalent Course(s): BCOM 105CE
You will develop fundamental employability skills through study of the principles of communication and active listening techniques. The course content includes development of effective writing skills and formatting. You will apply the principles and skills by writing business messages for positive, negative and persuasive purposes. You will examine ways to apply communication skills to cross-cultural situations. You will learn to apply effective presentation skills when delivering oral presentations and conducting business meetings. You will write short reports.
BCOM 120 Business Communications 1
Credit Units: 4.0  Course Hours: 64.0
Equivalent Course(s):  BCOM 104, TCOM 102, TCOM 180
You will develop fundamental employability skills by studying the principles of communication. The course content includes developing effective writing skills. You will apply the principles and skills by writing letters and memorandums for routine and negative purposes. You will develop teamwork employability skills and examine ways to apply communication skills to team and cross-cultural situations.

BCOM 121 Business Communications 2
Credit Units: 4.0  Course Hours: 64.0
Prerequisite(s):  BCOM 120
Equivalent Course(s):  COMM 149
You will continue to develop effective business writing skills and employability skills. The course focuses on writing business reports in both informal and formal styles. In addition, classroom study and experience will help prepare you for a business career by developing your presentation skills.

BCOM 121A Report Writing
Credit Units: 2.0  Course Hours: 32.0
This course introduces students to the techniques of report writing. Practise is given in writing a formal report and informal reports.

BCOM 121B Oral Communications and Meetings
Credit Units: 2.0  Course Hours: 32.0
Equivalent Course(s):  BCOM 103, BCOM 133, COMM 162
This course covers oral communications and business meetings.

BCOM 133 Oral and Interpersonal Communications
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  BCOM 120, BCOM 121, COMM 160, COMM 291
You will practise listening skills as well as demonstrate effective verbal and non-verbal skills. You will apply professional conflict resolution and problem solving techniques.

BCOM 145 Interpersonal Communication Skills
Credit Units: 1.0  Course Hours: 18.0
You will improve your interpersonal skills by discussing perception, nonverbal communications, barriers to communication, feedback and listening.

BCOM 146 Written Communication Skills
Credit Units: 2.0  Course Hours: 24.0
Equivalent Course(s):  BCOM 120
The course provides an introduction to the principles of effective business writing using emails, faxes, memos and letters. The course content includes a grammar review.

BCOM 300 Professional Writing and Presentations
Credit Units: 3.0  Course Hours: 45.0
You will study research techniques and develop writing and presentation skills for business applications. You will practice collaborative writing and research skills using the tools of electronic communication.

BCOM 600 Business Communications
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  MGMT 125
You will practice written and oral communication skills managers use on the job. You will study how to write effective letters, emails, and reports. You will practice planning and conducting meetings and doing verbal presentations.

BESK 100 Benchwork
Credit Units: 8.0  Course Hours: 120.0
You will perform operations using hand power tools and hand cutting tools in order to layout, file, thread and fit assemblies together.

BESK 101 Benchwork
Credit Units: 3.0  Course Hours: 40.0
You will use hand and power tools to shape and finish metals.

BESK 120 Benchwork
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  SFTY 126*
You will learn how to identify, select, operate and maintain hand and power tools, equipment and fasteners.
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<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
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<tbody>
<tr>
<td>BESK 170</td>
<td>Bench Skills</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>MEAS 161</td>
<td>BESK 100</td>
<td>You will identify, operate and maintain hand and power tools and equipment. You will also perform basic machining techniques.</td>
</tr>
<tr>
<td>BIM 100</td>
<td>Introduction to Building Information Modelling</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td></td>
<td></td>
<td>You will study the terminology associated with the process of Building Information Modeling (BIM) as a technology. You will discuss the BIM cycle from execution plans through to model handoff. As well, you will define BIM processes and standards in relation to software uses.</td>
</tr>
<tr>
<td>BIOC 281</td>
<td>Biochemistry</td>
<td>4.0</td>
<td>60.0</td>
<td>CHEM 287</td>
<td></td>
<td></td>
<td>You will be introduced to biological compounds including carbohydrates, lipids, proteins and nucleic acids. You will compare the structure of each group and relate it to biological function. You will be introduced to analytical and biochemical techniques used in the biosciences.</td>
</tr>
<tr>
<td>BIOL 100 CE</td>
<td>Human Anatomy and Physiology 1</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td></td>
<td>You will study the human body, how it is constructed and how it functions to maintain homeostasis. You will focus on the interaction between the structures of the body cells, tissues, organs and organ systems. You will learn about levels of organization of the human body, cells, and tissues. You will examine integumentary, skeletal, muscular, nervous, and sensory systems.</td>
</tr>
<tr>
<td>BIOL 101 CE</td>
<td>Human Anatomy and Physiology 2</td>
<td>3.0</td>
<td>45.0</td>
<td>ELEC 149, HEAT 100, SAFE 104</td>
<td></td>
<td></td>
<td>You will continue to study the anatomy and physiology of the human body. You will learn about fluids, electrolytes, and acid-base balance. You will examine structures and functions of the cardiovascular, lymphatic, respiratory, digestive, urinary, endocrine, and reproductive systems.</td>
</tr>
<tr>
<td>BIOL 101</td>
<td>Molecular Biology</td>
<td>1.0</td>
<td>22.0</td>
<td></td>
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<td></td>
<td>You will study the principles of molecular biology techniques and explain the practical applications of this technology as it would apply in a diagnostic laboratory. The course content includes DNA/RNA isolation, hybridization, Polymerase Chain Reaction and restriction enzyme analysis.</td>
</tr>
<tr>
<td>BLAW 281</td>
<td>Business Law</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td></td>
<td></td>
<td>You will acquire an introduction to business law. Your studies will include systems of courts, torts, contracts, form of business organization, employer/employee relationships, intellectual property, agency, negotiable instruments and consumer protection.</td>
</tr>
<tr>
<td>BLAW 282</td>
<td>Law and Risk Management for Managers</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td>LAW 220</td>
<td>You will be introduced to the Canadian legal system. You will discuss the legal framework for recreation and will review negligence, liability, contract law, and risk management. Case studies are used to help the student understand how to avoid negligence and liability and provide safe environments.</td>
</tr>
<tr>
<td>BLAW 283</td>
<td>Law in the Hospitality Sector</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td></td>
<td></td>
<td>You will learn about the Canadian court system, general tort and contract law for business, as well as a focus on liability and risk management for those in the hospitality sector. Your studies will include information on negligence, personal injury, property protection and damage, and responsibilities under the Innkeeper's Act.</td>
</tr>
<tr>
<td>BLDG 111</td>
<td>Building Envelope</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td></td>
<td>You will be introduced to construction characteristics and maintenance requirements of various types of buildings. You will learn how sealing and insulating techniques impact energy consumption and conservation. You will study various types of landscaping techniques.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credit Units</td>
<td>Course Hours</td>
<td>Prerequisite(s)</td>
<td>Corequisite(s)</td>
<td>Description</td>
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<tr>
<td>BLDG 112</td>
<td>Building Automation Systems</td>
<td>4.0</td>
<td>60.0</td>
<td>HEAT 100, SAFE 104</td>
<td></td>
<td>You will be introduced to building control systems in medium to large size buildings and study various types of controllers. You will learn how to manage central control systems as well as practice operating basic control systems.</td>
<td></td>
</tr>
<tr>
<td>BLDG 220</td>
<td>Building Systems: Preliminary Design</td>
<td>4.0</td>
<td>60.0</td>
<td>CNST 221</td>
<td>BUSY 220</td>
<td>Your studies will focus on the integration of building engineering systems. You will be introduced to mechanical, electrical, and plumbing (MEP) design principles from the perspective of architectural coordination.</td>
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</tr>
<tr>
<td>BLDG 221</td>
<td>Building Systems: Commercial Buildings</td>
<td>4.0</td>
<td>60.0</td>
<td>BLDG 220, BLDG 222</td>
<td></td>
<td>You will explore the preliminary design and integration of building engineering systems commonly used in large buildings. Your studies will include analysis of energy use. You will learn to prepare preliminary layouts of mechanical, electrical, and plumbing (MEP) equipment.</td>
<td></td>
</tr>
<tr>
<td>BLDG 222</td>
<td>Building Systems: Building Science</td>
<td>3.0</td>
<td>45.0</td>
<td>BLDG 220, CNST 222</td>
<td></td>
<td>You will examine the effects of heat, vapour, and air flow in building enclosures. You will also examine the effect of climate and weather on building enclosures. You will consider ways to successfully design building assemblies and connections using building science principles.</td>
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</tr>
<tr>
<td>BLDG 250</td>
<td>Building Systems: Commercial Interiors</td>
<td>4.0</td>
<td>60.0</td>
<td>BLDG 220</td>
<td></td>
<td>You will explore the preliminary design and integration of building engineering systems that affect interior spaces in large buildings. You will learn to prepare preliminary layouts of lighting, electrical, signaling, fire suppression, way-finding, and systems ceilings, flooring and furniture.</td>
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</tr>
<tr>
<td>BOTA 183</td>
<td>Botany</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>BOTA 184</td>
<td>You will examine anatomy and function in plants, with emphasis on the angiosperms. The course content includes: plant cells and tissues, development of the primary and secondary plant body, flowering and reproduction, and fruit and seed development. You will also distinguish the characteristics of algae, bryophytes, seedless vascular plants, and gymnosperms.</td>
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</tr>
<tr>
<td>BOTA 184</td>
<td>Botany Lab</td>
<td>3.0</td>
<td>45.0</td>
<td>BOTA 183</td>
<td></td>
<td>You will analyze plant structure and diversity, with emphasis on microscopic analysis. You will examine plant cells and tissues, primary and secondary plant growth, flowers, fruits, and seeds. You will also distinguish the characteristics of algae, bryophytes, seedless vascular plants, conifers, and crops.</td>
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<tr>
<td>BPRT 102</td>
<td>Construction Documents and Sketching</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td></td>
<td>You will learn how to properly interpret basic construction documents. You will also cover sketching simple orthographic and isometric drawings. As well, you will be able to perform basic masonry estimating procedures.</td>
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<tr>
<td>BPRT 104</td>
<td>Drawing Interpretation</td>
<td>3.0</td>
<td>50.0</td>
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<td></td>
<td>You will learn about the responsibilities and opportunities in the ironworker trade. You will develop your ability to read and interpret basic drawings. The course covers the basic elements of a blueprint, symbols, abbreviations and structural shapes.</td>
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<tr>
<td>BPRT 127</td>
<td>Construction Documents</td>
<td>1.0</td>
<td>15.0</td>
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<td></td>
<td>You will learn how to identify and use basic construction drawings to determine the location, sizes, and types of materials required for residential buildings. You will also be able to interpret building codes and permits.</td>
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</tr>
<tr>
<td>BPRT 222</td>
<td>Construction Documents</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td></td>
<td>You will learn how to identify and interpret residential construction drawings to determine the location, sizes, and types of materials required for residential buildings.</td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRAK 110</td>
<td>Brake Systems</td>
<td>6.0</td>
<td>88.0</td>
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<td>(Equivalent Course(s): BRAK 170)</td>
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<td></td>
<td>You will learn the function, operation, maintenance and repair of drum, disk and multiple disc brake systems as well as bearings, seals, wheels and tires.</td>
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<tr>
<td>BRAK 113</td>
<td>Brake Systems Air Theory</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>You will study the design, operation and service recommendations for air operated systems. Air operated anti-lock braking systems will be covered. Traction and stability control systems will also be covered.</td>
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</tr>
<tr>
<td>BRAK 114</td>
<td>Brake Systems Air Shop</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will service, repair and test air activated foundation brake systems. Park brake systems of various designs will be evaluated. Anti-lock, traction, and stability control systems will be analyzed. You will also learn about electric braking systems.</td>
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<tr>
<td>BRAK 115</td>
<td>Brake Systems Hydraulic Theory</td>
<td>1.0</td>
<td>15.0</td>
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<tr>
<td></td>
<td>You will study the design, operation and service recommendations for hydraulic brake systems. Hydraulically operated anti-lock braking systems will be covered. Traction and stability control systems will be discussed. You will also learn about electric braking systems.</td>
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<td></td>
</tr>
<tr>
<td>BRAK 116</td>
<td>Brake Systems Hydraulic Shop</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will service, repair and test hydraulically activated foundation brake systems. Park brake systems of various designs will be evaluated. Air-lock, traction, and stability control systems will be analyzed. Electric brake systems will be serviced and repaired.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRAK 117</td>
<td>Braking Systems 1 (Non-ABS)</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>The course covers the operation, diagnosis and repair of braking system hydraulic components.</td>
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<td></td>
</tr>
<tr>
<td>BRAK 118</td>
<td>Braking Systems 2 (Non-ABS)</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>Your studies will help you develop the skills to evaluate and repair drum brakes, disc brakes and park brake systems.</td>
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</tr>
<tr>
<td>BRAK 119</td>
<td>Braking Systems 3 (ABS)</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will gain an understanding of the operation, diagnosis and repair of anti-lock brake, traction control and stability control systems. You will examine the evaluation and repair of tire pressure monitor systems.</td>
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<tr>
<td>BRAK 150</td>
<td>Brake Systems</td>
<td>6.0</td>
<td>90.0</td>
</tr>
<tr>
<td></td>
<td>You will learn the function, operation, maintenance and repair of drum, disk and multiple disc brake systems as well as bearings, seals, wheels and tires.</td>
<td></td>
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</tr>
<tr>
<td>BT 100</td>
<td>Introductory Electrical Theory and Practices</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will gain an understanding of the electrician trade, electrical theory and electrical terminology through classroom and lab experiences. Your studies will help you become familiar with basic electrical circuits and components used in electrical equipment. You will terminate conductors and install typical lighting and receptacle circuits.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BT 141</td>
<td>Resistive Circuit Analysis</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td></td>
<td>Prerequisite(s): BT 100*</td>
<td></td>
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<tr>
<td></td>
<td>You will prove Ohm’s Law, Watt’s Law, and Kirchoff’s Laws through classroom and laboratory experiences. You will apply these laws to solve series, parallel, combination, and three-wire circuit problems. You will become familiar with the terminology, operation, and connection of cells and batteries.</td>
<td></td>
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</tr>
<tr>
<td>BUS 010</td>
<td>Nail Salon Operations</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will develop an understanding of operating a nail salon and employer expectations. Your studies will develop your awareness of legal and labour regulations, financing, nail salon design and maintaining shop inventory and equipment. The course covers practical application of personality theories to salon situations.</td>
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</tr>
</tbody>
</table>
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 100</td>
<td>Salon and Spa Operations</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>BUS 101</td>
<td>Salon Operations</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>BUS 103</td>
<td>Spa Operations</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>BUS 183</td>
<td>Aviation Business</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>BUS 200</td>
<td>Business Planning</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>BUS 201</td>
<td>Business Practice</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>BUS 203</td>
<td>Entrepreneurship for Engineering Technologies</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>BUS 300</td>
<td>Business and Society</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>BWC 121</td>
<td>Conductors and Branch Circuits</td>
<td>4.0</td>
<td>60.0</td>
</tr>
</tbody>
</table>

### BUS 100 Salon and Spa Operations
Credit Units: 4.0  Course Hours: 60.0
You will develop an appreciation for the effort that goes into starting your own business. Your studies will develop your awareness of legal and labour regulations, protection required, financing, salon design and maintaining shop inventory and equipment.

### BUS 101 Salon Operations
Credit Units: 4.0  Course Hours: 60.0
You will develop an understanding of operating a hair salon and employer expectations. Your studies will develop your awareness of legal and labour regulations, financing, salon design and maintaining shop inventory and equipment. The course covers practical application of personality theories to salon situations.

### BUS 103 Spa Operations
Credit Units: 4.0  Course Hours: 60.0
You will develop an understanding of operating a spa and employer expectations. Your studies will develop your awareness of legal and labour regulations, financing, spa design and maintaining shop inventory and equipment. The course covers practical application of personality theories to spa situations.

### BUS 183 Aviation Business
Credit Units: 2.0  Course Hours: 30.0
You will acquire essential business knowledge that will contribute to the success of the flight operation that employs you. The course content includes commercial aviation in the business world, business plans and marketing.

### BUS 200 Business Planning
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): RT 201  Equivalent Course(s): ADMN 224
You will be introduced to the components of a comprehensive and well-thought-out business plan. You will examine the components of a business plan, business legal structures, finance, costing and pricing.

### BUS 201 Business Practice
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): CADA 200
Your studies will focus on Canadian business structures, relevant business law and business operations. You will study the elements of contracts and procurement processes. You will also be introduced to several geomatics professions with emphasis on the legal land surveying and engineering professions in Canada. You will examine the elements of a self-regulating profession.

### BUS 203 Entrepreneurship for Engineering Technologies
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): TCOM 102
You will learn the specifics of organizing and opening a small business. You will study the process of entrepreneurship from a technology-oriented background.

### BUS 300 Business and Society
Credit Units: 3.0  Course Hours: 45.0
You will study the business corporation in its social context, with a focus on stakeholder groups and their participation in decision-making for a business.

### BUS 400 Construction Business Strategies: Trends and Issues
Credit Units: 3.0  Course Hours: 45.0
You will study the process of starting and operating a business as well as strategic and lean management practices. You will practice your skills by developing a business and marketing plan.

### BWC 121 Conductors and Branch Circuits
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): BT 100*
You will be introduced to different conductor and insulation materials. You will be able to calculate conductor cross-sectional area, conductor resistance, line drop, and line loss. You will be able to determine conductor ampacity, overcurrent device rating, and bonding conductor size for appliance, receptacle, and lighting branch circuits. You will be able to design an electrical layout for a single dwelling and complete an estimate for the installation.

Register online at saskpolytech.ca or call 1-866-467-4278  Sask Polytech Calendar 2019-2020
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BWC 122</td>
<td>Extra Low Voltage, Magnetism and Meters</td>
<td>4.0</td>
<td>60.0</td>
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<td></td>
<td>You will focus on the inter-relationship of magnetism and</td>
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<td></td>
<td>electricity. You will use meters to measure electrical properties</td>
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<tr>
<td></td>
<td>(such as volts, amps, resistance, power and energy). You will</td>
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<td>install basic signal systems and typical residential remote</td>
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<td>control relay systems using industry installation standards and</td>
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<td>trade standards of workmanship.</td>
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<tr>
<td>CAD 100</td>
<td>Computer Aided Design</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will study basic theory and practice of printed circuit board</td>
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<td>layout. You will use industry standard software to create circuit</td>
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<td></td>
<td>diagrams and generate required files to produce printed circuit</td>
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<td></td>
<td>boards (PCBs). You will use software to simulate and analyze</td>
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<tr>
<td></td>
<td>circuits.</td>
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<tr>
<td>CAD 181</td>
<td>CAD Drafting</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td></td>
<td>Prerequisite(s): COAP 172* or DRFT 174*</td>
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<td></td>
<td>Corequisite(s): COAP 172, DRFT 174</td>
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<td>Equivalent Course(s): DFT 105, DFT 191</td>
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<td>Your studies will focus on the concepts of micro-based computer</td>
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<td>assisted drafting (CADD). Extensive hands-on training and</td>
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<td>lecture sessions will provide the knowledge you need to produce</td>
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<td>industrial standard CADD drawings, use 2-D drafting and draw</td>
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<td>from 3-D models. You will follow standard conventions while</td>
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<td>improving your skill and efficiency in using a CAD system.</td>
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<tr>
<td>CAD 191</td>
<td>CAD Systems and Networking</td>
<td>4.0</td>
<td>64.0</td>
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<tr>
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<td>You will be presented with background theory and math as</td>
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<td>necessary to support a comprehensive understanding of</td>
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<td>networking fundamentals. You will examine ethernet technology</td>
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<td>in relation to its dominance in industry. You will discuss the</td>
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<td>OSI and TCP/IP models are discussed, beginning with physical</td>
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<td>cabling and working up through devices (such as repeaters/hubs,</td>
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<td>bridges/switches and to routers). At the completion of the</td>
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<td>course you will be able to create and test Local</td>
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<td></td>
<td>Area Network (LAN) cables, physically cable a LAN, select</td>
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<td>devices, plan and implement subnets, configure networking</td>
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<td>parameters and connect computers into a high speed LAN. You will</td>
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<tr>
<td></td>
<td>also complete requirements for Cisco Certified Networking</td>
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<tr>
<td></td>
<td>Associate (CCNA) Semester 1.</td>
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<tr>
<td>CAD 226</td>
<td>Computer Aided Design and Drafting</td>
<td>3.0</td>
<td>48.0</td>
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<tr>
<td></td>
<td>You will be introduced to Computer Aided Drafting (CAD). You</td>
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<td></td>
<td>will learn how to produce quality engineering graphics using</td>
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<td></td>
<td>commercial CAD packages. You will create 2D drawings</td>
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<td></td>
<td>including multi-view projections, pictorial illustrations,</td>
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<td></td>
<td>chassis fabrication layout diagrams, building layout and wiring</td>
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<tr>
<td></td>
<td>diagrams.</td>
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<tr>
<td>CAD 281</td>
<td>Computer Aided Engineering 1</td>
<td>5.0</td>
<td>77.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): CAD 181</td>
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<tr>
<td></td>
<td>You will learn how to use computer software to solve</td>
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<td></td>
<td>mathematical/engineering problems. You will develop</td>
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<td></td>
<td>techniques for creating programs to solve these problems,</td>
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<td></td>
<td>discuss the limitations of these techniques and be introduced</td>
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<td></td>
<td>to commercially available software. The course content</td>
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<tr>
<td></td>
<td>includes numerical methods, statistics, piping system analysis</td>
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<tr>
<td></td>
<td>and design, and the design of cams. A commercially available</td>
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<td></td>
<td>software program is used for the piping analysis portion of the</td>
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<td>course. You will also learn about advanced features of Excel as</td>
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<td></td>
<td>a tool for solving engineering problems.</td>
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<tr>
<td>CAD 282</td>
<td>Computer Aided Engineering 2</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td></td>
<td>Prerequisite(s): CAD 281, ENGM 289</td>
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<td>Corequisite(s): AIR 288, ENGM 280, ENGM 281, INST 288</td>
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<td></td>
<td>Building on the skills you developed in CAD 281 (Computer</td>
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<td></td>
<td>Aided Engineering 1), you will learn how to use computers in the</td>
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<td>engineering process. Design work in the field of mechanical</td>
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<td>engineering will be emphasized and will complement concurrent</td>
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<td>Year 2 - Semester 4 technical courses.</td>
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<tr>
<td>CAD 283</td>
<td>Advanced CAD Modeling</td>
<td>4.0</td>
<td>64.0</td>
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<tr>
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<td>Prerequisite(s): DRFT 291</td>
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<td></td>
<td>You will develop an understanding of 3-Dimensional CAD</td>
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<td>through a study of wire frame, surface and solid model</td>
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<td>construction methods. You will learn techniques for</td>
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<td>documenting 3D models using the traditional 2D views and</td>
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<td>dimensioning associated with working drawings. You will also</td>
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<td>select a project (assembly or mechanism) and create a 3D</td>
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<td>parametric solid model that will be used as a starting point</td>
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<td>for CAD 295 (Virtual and Rapid Prototyping).</td>
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</tbody>
</table>
Course Descriptions

**CAD 285 Industry Design Project**
Credit Units: 3.0  Course Hours: 52.0
Prerequisite(s): CAD 283, CAD 287, DSGN 280, ELEC 279, ENGM 290, MANU 280, MANU 290, THER 283
Corequisite(s): CAD 288, CAD 295, CAD 298, DSGN 282, DSGN 283, ENG 291, ENG 292, MANU 291, MANU 293, PROJ 287, TCOM 104
You will complete an industrial project (acquired from a local company) that will involve a significant component of design, analysis and/or manufacturing technology. You will select, define and assess the problem, prepare and coordinate the results, and present the results to your client. The project will demonstrate your capacity to apply the knowledge you have acquired from several previous and concurrent courses to solving a "real life" problem in a practical way. You will present your project in the form of a written technical report and an oral presentation.

**CAD 287 Computer Aided Manufacturing 1**
Credit Units: 4.0  Course Hours: 64.0
Prerequisite(s): COSC 193, WELD 387
Your studies will focus on the methods of using computers to help create a code of instructions to manufacture a part on a computer numerical machine. You will solve practical manufacturing problems using traditional CNC techniques. You will gain hands-on experience using industrial CNC equipment and modern controllers. You will also set up raw stock and configure tooling with different machine set-ups, configurations and machine metal parts.

**CAD 288 Computer Aided Manufacturing 2**
Credit Units: 4.0  Course Hours: 64.0
Prerequisite(s): CAD 287
Building on the skills you developed in CAD 287 (Computer Aided Manufacturing 1) and using CAD/CAM systems, you will learn how to generate CNC code to operate machine tools. You will study methods of creating and importing geometry as wire frame, freeform surfaces or solids. You will then use the CAM software to create CNC code to cut the part.

**CAD 295 Virtual and Rapid Prototyping**
Credit Units: 3.0  Course Hours: 48.0
Prerequisite(s): CAD 283
Building on the skills developed in CAD 283 (Advanced CAD Modeling), you will use the 3D models you created in the major project to produce virtual prototypes using photo-realistic images and animated sequences. You will produce a one minute animated video of the model that shows the assembly of the components or the operation of a mechanism. Your animation will be created and used in the context of being an extremely valuable visualization tool for use in the engineering design process. You will also create a rapid prototype model of one of your components out of ABS plastic using a StrataSys FDM (fused deposition modeler) Rapid Prototyping machine.

**CAD 297 CAD Customization**
Credit Units: 2.0  Course Hours: 35.0
Prerequisite(s): DRFT 391
Corequisite(s): COSC 193
Equivalent Course(s): CAD 192
You will learn how to produce user functions to automatically generate geometry (based on user specified input). You will develop programs and functions in both LISP and VBA.

**CAD 298 CAD Seminars**
Credit Units: 1.0  Course Hours: 16.0
Equivalent Course(s): CAD 286
You will investigate advanced features of CAD software used in the program and in local industry. Where possible, local users with product expertise will be invited to present a seminar and share their expertise. Incremental upgrades to software that you have already learned will be presented as time permits. You will also receive an introduction to other relevant software that is not directly taught or used in other courses but may prove valuable when you are employed.

**CAD 299 CAD/CAM Systems Management**
Credit Units: 2.0  Course Hours: 32.0
Prerequisite(s): CAD 191, ELTR 287
You will study the basics of managing engineering documentation. You will learn to manage computer systems in an engineering environment. The course provides an introduction to the functions of a system operator/manager. You will learn the requirements to plan for, deploy and manage a system of computers in an engineering and manufacturing environment. Classroom and lab experiences will help you install a current networked operating system and set up and administrate users, groups, hardware and software.
Course Descriptions

CADA 200 Cadastral Theory 1
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s):  MAT 110, SRVY 105, SRVY 106
Your studies will focus on real property and interests in real property. You will explore the elements of a cadastre and land registration systems. You will study the different types of boundaries. The course introduces the land surveyor and discusses their role in real property, land registration and boundaries. You will study the provincial and federal legislation that define the expectations and requirements for land surveys and land surveyors. The course introduces the basics of the Dominion Land Survey System.

CADA 201 Cadastral Theory 2 and Cadastral Surveying
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s):  CADA 200
Your studies will focus on the principles of boundaries of different systems. You will study offshore boundaries within the context of International and national guidelines. You will discuss the essential principles for determining maritime boundary locations. You will also discuss Aboriginal land law and the Dominion Land Survey Systems’ properties. You will calculate both key geodetic locations within the systems and theoretic layout parameters. Finally, you will participate in common cadastral field surveys and prepare survey deliverables.

CADD 120 Computer Aided Drafting 1
Credit Units: 3.0    Course Hours: 45.0
Corequisite(s):  DRFT 106
You will develop fundamental computer aided drafting (CAD) skills using industry-standard software. Your studies will focus on two-dimensional geometric construction, dimensioning and drawing output.

CADD 124 Computer Aided Drafting 2
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s):  DRFT 390
Building on your computer aided drafting (CAD) skills, your studies will focus on intermediate and advanced 2D-CAD drafting, and improving your efficiency with CAD software.

CADD 200 Computer Aided Drafting 4
Credit Units: 3.0    Course Hours: 48.0
Prerequisite(s):  CADD 221, COAP 127
You will be introduced to programming in AutoLISP. You will use the programming language integrated into AutoCAD (AutoLISP) to develop routines to automate and enhance the standard AutoCAD functions.

CADD 201 Computer Aided Drafting 2
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s):  CADD 120
Corequisite(s):  CADD 212, DRFT 205, DRFT 209
Building on your computer aided drafting (CAD) skills, your studies will focus on intermediate and advanced 2D CAD drafting. You will develop drawing sets and produce annotative objects.

CADD 211 Integrated CADD Projects
Credit Units: 2.0    Course Hours: 30.0
Corequisite(s):  CADD 211
You will be introduced to specialized computer aided drafting (CAD) software that is currently being used in industry. This course will help prepare you for your co-operative education placement(s). You will be introduced to at least three different specialized software packages that use 3D technology and Building Information Modelling (BIM) technology. You will complete required template driven assignments in each software package and be expected to complete one final project using one of the software packages.

CADD 221 CADD Customization
Credit Units: 1.0    Course Hours: 15.0
Prerequisite(s):  CADD 120
As a power user, you will study advanced topics in computer aided drafting using industry-standard software. Software customization, software enhancement and automation will be emphasized.

CADD 222 Computer Aided Drafting
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s):  ENG 120, INST 221
You will use computer aided drafting software to draw various instrument diagrams (such as loop, and installation). You will apply the industrial process symbols you studied in ENG 120 Codes and Standards.

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CALC 100 Integral Calculus
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s): MATH 182
Equivalent Course(s): CALC 181
Building on the knowledge you acquired in MATH 182 (Technical Mathematics and Differential Calculus), you will study the differentiation and integration of algebraic and transcendental functions, and applications of these concepts to max/min problems, related rates, root solutions, areas, centroids and moments of inertia.

CALC 181 Technical Mathematics and Integral Calculus
Credit Units: 5.0    Course Hours: 68.0
Prerequisite(s): MATH 182
Equivalent Course(s): CALC 100, CALC 190, MAT 221
You will receive a sound calculus background for solving a wide range of problems in the field of mechanical engineering. You will receive an introduction to integral calculus and learn how to apply it in a variety of situations. Differential and integral calculus will be expanded to include transcendental functions.

CALC 190 Integral Calculus
Credit Units: 5.0    Course Hours: 72.0
Prerequisite(s): MATH 193
Equivalent Course(s): CALC 181, MAT 246
Building on the knowledge you acquired in MATH 193, you will study the differentiation and integration of algebraic and transcendental functions and the applications of these concepts to max/min problems, root solutions, areas, volumes, centroids, moments of inertia, arc length and surface area.

CALC 282 Differential Equations and Transforms for Electronics
Credit Units: 3.0    Course Hours: 48.0
Prerequisite(s): CALC 281
Building on the knowledge acquired in CALC 281 (Calculus), you will study classical and Laplace transform methods of solving first and second order integral-differential equations. You will then apply these methods to solving problems that are modelled by first and second order integral-differential equations. The course will conclude with a basic study of the use of Laplace transforms to determine a transfer function and simplify a system modelled by transfer functions.

CAM 170 Computer Aided Manufacturing 1
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): DRFT 174, MATH 167
You will use computer aided manufacturing (CAM) software to draw and create tool paths for computer numerical control (CNC) lathes and machining centres. You will simulate your tool paths on the computer and post the program to a CNC machining centre.

CAM 171 Computer Aided Manufacturing 2
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): CAM 170
Your studies will focus on advanced features of CAM software. You will study advanced surface finishing and high speed roughing techniques and practice importing files from various CAD software into CAM software.

CAMP 102 Winter Camp
Credit Units: 1.0    Course Hours: 15.0
You will participate in a winter camp and apply the principles of snowmobile safety, winter emergency survival techniques and ice-rescue techniques. You will increase your competency for working under arduous conditions while exploring winter ecology in a boreal setting.

CAMP 103 Geotechnical Survey Camp
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s): MATH 138, SRVY 102
Corequisite(s): SRVY 103
Equivalent Course(s): CAMP 225
You will participate in surveying, drilling and soil characterization exercises in the field in order to locate a structure as assigned. Your first step will be to locate the property boundaries and drilling site locations. You will then undertake a drilling exercise to collect soil samples on the property and perform a soils characteristic analysis to determine the overall site characteristics. The data gathered through these field and lab exercises will be used to recommend a site location for a proposed structure.
## Course Descriptions

### CAMP 104 Environmental Field Work 1
- **Credit Units:** 5.0  
- **Course Hours:** 75.0  
- **Prerequisite(s):** MEAS 109, ENVR 105*, SOIL 102*, GIS 110*

Using the knowledge gained in previous surveying and Computer Aided Drafting courses, you will participate in field based projects. You will be introduced to the application of Global Positioning System (GPS) hardware to collect data to produce a topographic map of a project area using Geographic Information System (GIS) applications. You will conduct an environmental monitoring study of the same project area to assess water quality.

### CAMP 105 Survey Camp
- **Credit Units:** 5.0  
- **Course Hours:** 75.0  
- **Prerequisite(s):** MATH 182, SRVY 123

Using the knowledge gained in previous surveying and computer aided drafting software courses, you will participate in surveying exercises and perform three projects in the field. In the first project, you will document, design and lay out a section of roadway including a horizontal curve. In the second project you will collect closed traverse data and produce the drawing. In the third project, you will use the data collected using Global Positioning System (GPS) survey equipment in the field to produce a topographic map.

### CAMP 204 Environmental Field Work 2
- **Credit Units:** 5.0  
- **Course Hours:** 75.0  
- **Prerequisite(s):** CAMP 104, ENVR 236, LABS 202

Using the knowledge gained in previous courses, you will participate in field based projects related to environmental assessment and monitoring in air, soil, water, and groundwater matrices. The results of your field based projects will be applied to the characterization and an evaluation of contaminant pathways and potential or actual risk(s) to identified receptors.

### CAMP 220 Survey Field Camp 1
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Corequisite(s):** DRFT 390, SRVY 201

You will apply the knowledge gained in previous surveying and drafting courses. You will use various instruments to gather data and use this data to produce a topographic plan of your survey.

### CAMP 225 Survey Camp
- **Credit Units:** 6.0  
- **Course Hours:** 90.0  
- **Prerequisite(s):** COAP 108*, SRVY 222*  
- **Equivalent Course(s):** CAMP 224

Using the knowledge gained in previous surveying and Computer Aided Drafting (CAD) courses, you will participate in surveying exercises and perform two projects in the field. In the first project, you will use the data collected in the field to produce a topographic map of one area. In the second project, you will document, design and layout a section of roadway including a horizontal curve. You will be introduced to the application of GPS survey equipment.

### CAMP 226 Field Camp
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** CAMP 225

You will participate in a number of field activities including a hydrographic survey of a river pump testing an aquifer/groundwater well and testing the quality of a drinking water supply.

### CAMP 280 Programming Lab
- **Credit Units:** 6.0  
- **Course Hours:** 90.0

This course provides an introduction to the skills needed to plan and lead outdoor education/recreational activities. Planning outdoor programs with minimal environmental impact is emphasized through sustainability activities.

### CAMP 281 Outdoor Programming Lab
- **Credit Units:** 7.0  
- **Course Hours:** 105.0

The course provides an opportunity for you to develop your leadership and group management skills as you apply the program planning and community development process in a winter environment. You will work within an organizational structure that will ensure camp standards are established and maintained. You implement a process to ensure a fair and equitable allocation of resources.

### CAMP 304 Grassland Ecosystem Camp
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Equivalent Course(s):** CAMP 540

You will spend six days in the southern half of Saskatchewan where you will explore a wide variety of fish, wildlife and park management activities. Your tour will focus on grassland ecosystems: grassland ecology, endangered wildlife and plants, and a variety of wildlife, fisheries and park management issues and activities.

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### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
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<tbody>
<tr>
<td>CAMP 305</td>
<td>Winter Aquatic Surveys</td>
<td>1.0</td>
<td>15.0</td>
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<tr>
<td>CAMP 402</td>
<td>Natural Resources Field Techniques</td>
<td>3.0</td>
<td>45.0</td>
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<td>CAMP 403</td>
<td>Compliance Field Services Camp</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>CAMP 412</td>
<td>Aquatic Field Surveys</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>CAMP 413</td>
<td>Resource and Environmental Law Field Techniques</td>
<td>2.0</td>
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<tr>
<td>CAMP 415</td>
<td>Natural Resources Field Technician-Forestry</td>
<td>1.0</td>
<td>15.0</td>
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<tr>
<td>CAMP 416</td>
<td>Natural Resources Field Technician-Wildlife</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>CAPL 100</td>
<td>Know Yourself: Exploring Skills &amp; Interests</td>
<td>1.0</td>
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<tr>
<td>CAPL 101</td>
<td>Labour Market Research</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>CAPL 102</td>
<td>Career Action Plan</td>
<td>1.0</td>
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#### CAMP 305 Winter Aquatic Surveys
Credit Units: 1.0  Course Hours: 15.0
You will participate in a winter camp and apply the principles of winter water quality and under-ice fish netting techniques. You will increase your competency for working under arduous conditions while exploring winter ecology in a boreal setting.

#### CAMP 402 Natural Resources Field Techniques
Credit Units: 3.0  Course Hours: 45.0
You will immerse yourself in wildlife management field techniques. You will work through a variety of scenarios to develop tools and techniques for dealing with wildlife. You will develop field skills suitable for resource officers including how to manage public relations when working with problem wildlife.

#### CAMP 403 Compliance Field Services Camp
Credit Units: 2.0  Course Hours: 30.0
You will spend a week participating in a variety of lab and field activities including necropsies, resource K-9 demonstrations and the recovery of spent bullets from snow covered fields. You will also tour a provincial park and a national park where you will receive presentations from conservation officers and park wardens on the roles and responsibilities of officers within those parks.

#### CAMP 412 Aquatic Field Surveys
Credit Units: 2.0  Course Hours: 30.0
Your training will include an engagement in aquatic resource management field techniques. You will work directly with a variety of aquatic organisms, learn and complete survey protocols, and collect field data that will be used in your second year courses. You will learn and practice the ethical treatment and proper handling of fish.

#### CAMP 413 Resource and Environmental Law Field Techniques
Credit Units: 2.0  Course Hours: 30.0
You will immerse yourself in boreal field management and resource enforcement techniques. You will demonstrate boating enforcement and trailer towing and unloading techniques. You will also collect evidence, conduct field compliance inspections and enforcement procedures for different game harvesting methods.

#### CAMP 415 Natural Resources Field Technician-Forestry
Credit Units: 1.0  Course Hours: 15.0
You will immerse yourself in forestry management field techniques. You will work through a variety of scenarios to develop tools and techniques for managing forestry. You will develop field skills suitable for resource technicians including how to manage forestry projects.

#### CAMP 416 Natural Resources Field Technician-Wildlife
Credit Units: 2.0  Course Hours: 30.0
You will immerse yourself in wildlife management field techniques. You will work through a variety of scenarios to develop tools and techniques for dealing with wildlife. You will develop field skills suitable for resource technicians including how to manage public relations when working with problem wildlife.

#### CAPL 100 Know Yourself: Exploring Skills & Interests
Credit Units: 1.0  Course Hours: 15.0
You will use a variety of tools and activities to identify your personal career interests, preferences and values. The tools will include the Strong Interest Inventory and the Myers-Briggs Type Indicator. You will also identify your transferable skills and begin to explore career options.

#### CAPL 101 Labour Market Research
Credit Units: 2.0  Course Hours: 30.0
You will use a variety of resources to locate information on occupations and employers of interest. You will also gather and interpret current labour market information relevant to your career and employment goals. You will use the information you have gathered to revise and refine your career goals.

#### CAPL 102 Career Action Plan
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s): CAPL 101
You will organize and analyze the information you have gathered in previous courses to find and choose the work placement that best meets your needs. You will be responsible for researching and selecting your own work placement, with assistance and support from your instructors. You will identify barriers to your career and employment success and discuss strategies for overcoming them. You will also set short term and long term career and employment goals.

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CAPL 145 Writing Skills
Credit Units: 3.0   Course Hours: 45.0
Equivalent Course(s):  COMM 119
You will review basic grammar and the mechanics of writing. You will also produce examples of technical writing (including basic reports, research papers using the American Psychological Association (APA) format and using reference materials). You will receive instruction and practice in written communication skills.

CAPL 150 Hospitality Career Development
Credit Units: 3.0   Course Hours: 45.0
You will discuss the scope, nature and trends of the hospitality industry. You will develop a personal career action plan and the skills necessary to be successful in today's job market. You will visit local hotels and observe operations.

CAPL 151 Career Development
Credit Units: 3.0   Course Hours: 45.0
You will discuss the scope, nature and trends of the food service industry. You will tour industry locations, observe the workplace, and ask questions to apply and/or clarify theory you have learned. You will also receive an overview of the sectors that make up the industry, as well as discuss the skills needed to be successful in today's job market. Finally, you will learn strategies for developing resumes, cover letters and electronic portfolios and will have an opportunity to practice job interview skills.

CAPL 180 Career Development
Credit Units: 2.0   Course Hours: 30.0
You will discuss the scope, nature and trends of the food service industry. You will receive an overview of the sectors that make up the industry and receive an overview of the skills needed to be successful in today's job market. Finally, you will learn strategies for developing resumes, cover letters and an electronic portfolio. You will also have the opportunity to apply job interview skills.

CDBM 190 Introduction to Database Management
Credit Units: 5.0   Course Hours: 75.0
Prerequisite(s): COSC 180
You will receive instruction and practice in using an industry standard database management application program. You will learn how to design queries, forms and reports to manage an underlying database. You will also create functions and procedures to add advanced functionality to the database management system.

CDBM 280 Database Management Systems
Credit Units: 5.0   Course Hours: 75.0
Prerequisite(s): CDBM 190
You will receive instruction and practice in planning, designing and accessing data in a relational database. You will study the theory behind relational databases, relational database nomenclature and optimizing database design through normalization. You will create queries and manipulate a relational database using standard SQL statements (including using SQL in a procedural environment to create procedures, functions and triggers).

CDBM 600 Database Design and Development
Credit Units: 3.0   Course Hours: 45.0
You will study the theoretical concepts related to planning, designing and accessing data in a relational database; then you will engage in hands on practice. You will study the theory behind relational databases, relational database nomenclature and optimizing database design. You will create queries and manipulate a relational database using standard Structured Query Language (SQL) statements (including using Structured Query Language (SQL) in a procedural environment to create procedures and functions).

CDEP 155 Behaviour and Drug Dynamics
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): MHA 148
You will be introduced to the pharmacological and physiological effects of drugs on the body. You will also discuss six major drug classifications. You will examine, in detail, key drugs of abuse encountered as addictions workers. You will also practice presenting information on drugs to education groups.
Course Descriptions

CDEP 158 Substance Use Disorders/Disorder Patterns
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CDEP 179
You will discuss the theories, etiology, and best practices of working with clients with substance use disorders. You will also review the addictions and recovery processes for alcohol, cocaine and marijuana for adults and adolescents.

CDEP 161 Erosion of Addicted Families
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CDEP 179, CDEP 180
You will examine the progressive erosion of family functioning as the effects of substance disorders progress. The effects on the addicted person's spouse, children, parents and adult children will be given specific attention.

CDEP 169 Community Engagement
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): ADMN 253, COUN 245
You will examine the process of change, community engagement, mobilization and development. Prevention and education strategies to regain or maintain community wellness lost due to substance abuse will be emphasized.

CDEP 170 Prevention Programs
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): CDEP 169
You will examine the major forces and perspectives that have shaped our current addictions policies, laws and practices. Your studies will focus on prevention programming and strategies that can be used to help individuals and communities regain or maintain healthy lifestyles without the influence of substance use.

CDEP 172 Communications in Mental Health and Addictions
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CDEP 176
You will practice communication skills needed to develop effective interpersonal communication within the mental health and addictions profession. Skills learned will include verbal and nonverbal communication, self-disclosure, trust building, demonstrating respect, summarizing, giving and receiving feedback, and paraphrasing. You will also examine the role of addictions, co-dependency and cultural diversity play in communications from a client's view and from the skilled helper's view.

CDEP 174 The Impact of Substance Use on Families
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MHA 142
You will examine the progressive erosion of family functioning as chemical dependency progresses. The effects on the addicted person's spouse, children, parents and adult children of alcoholics will be given specific attention. You will examine the effect of mental health issues and family laws and policies. You will examine the types of abuses that occur in a family. You will also be introduced to various referral strategies for families entering into the healing process.

CDEP 176 Human Relations in Mental Health and Addictions
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): CDEP 178, CDEP 180, CDEP 161
You will examine the importance of interpersonal competence and communication in one's personal and professional life. You will study self-disclosure and the various levels needed for personal and professional use. The course content includes trust building, active listening, verbal and non-verbal communication and building relationships with individuals from diverse backgrounds.

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### CDEP 177 Conflict Resolution in Mental Health and Addictions
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  CDEP 172
Equivalent Course(s):  CDEP 173
You will be introduced to theory and skills for effective anger, fear and conflict management. You will learn how to identify sources of anger, fear and conflicts. You will be given opportunities to practice assertiveness, conflict resolution, confrontation and negotiation skills. You will also explore the implications that arise when working with people affected by addictions and from various cultural backgrounds.

### CDEP 178 Fetal Alcohol Spectrum Disorder
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s):  CDEP 155
You will be introduced to the basic concepts of Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS). The course emphasizes the importance of identifying those at risk for FASD neurodevelopmental disorder, early intervention and strategies for working with clients and their families affected by Fetal Alcohol Spectrum Disorder (FASD).

### CDEP 179 Detoxification and Recovery Processes
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  CAPL 145, CDEP 155, CDEP 158
You will examine various detoxification programs, recovery wellness models, the dynamics of relapse and medical interventions used in the recovery process across Canada. You will examine special considerations needed for withdrawal management (including treatment processes) as they relate to non-Indigenous and Indigenous traditional practices.

### CDEP 180 Family Systems and Abuses
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  CDEP 158
Equivalent Course(s):  YCW 282
Your studies will focus on the structure, functions, individual roles and values within the institution of the family. The Canadian family, the influence of family background and family dynamics within a "systems theory" will be emphasized. You will examine the types of abuses that occur in a family and various referral strategies for families entering into the healing process.

### CDEP 181 Special Needs in Mental Health and Addictions
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  CDEP 161
You will study the role sex and sexuality play in addictions. You will examine a number of core challenges surrounding special needs clients including the elderly, grieving clients, physically challenged, clients with chronic infectious diseases, clients on probation or parole and street youth. You will also study addictions issues specific to the sub-group populations with gender issues.

### CDEP 246 Presentation Skills
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  CDEP 177, CDEP 178, CDEP 180, CDEP 181, CLTR 148, COUN 155, MHA 143, MHA 144
You will apply various presentation delivery formats ranging from formal speeches, press releases and media interviews, to interactive educational presentations.

### CDEP 247 Trauma and Addictions
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  COUN 155
You will examine the prevalence and relationships between trauma, addictions/substance abuse and mental health including the impact of residential schools on Indigenous peoples. You will examine the impact on service providers working with trauma survivors and the healing process of trauma survivors.

### CDNS 280 Canadian Government
Credit Units: 3.0  Course Hours: 45.0
You will become familiar with the history of the Canadian government and system of parliament (including the constitution from 1867 to present). You will learn the broad principles of government and parliament. This includes the concepts of executive federalism and responsible government.

### CDNS 300 Canadian Government
Credit Units: 3.0  Course Hours: 45.0
You will become familiar with the history of the Canadian government and system of parliament (including the constitution from 1867 to present). You will learn the broad principles of government and parliament. This includes the concepts of executive federalism and responsible government.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 101</td>
<td>Applied Chemistry for Veterinary Technology</td>
<td>3.0</td>
<td>45.0</td>
<td>MATH 280*</td>
<td>CHEM 185</td>
<td>Your studies will provide a review of inorganic chemistry, and an introduction to organic compounds and biochemical pathways important in understanding the chemical reactions that occur in the body. You will also develop safe laboratory skills, prepare chemical solutions and analyze acid-base reactions as relevant to the veterinary field.</td>
</tr>
<tr>
<td>CHEM 102</td>
<td>General Chemistry 1</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td>You will study essential chemical concepts including atomic structure, nomenclature, stoichiometry, aqueous solutions, thermodynamics, quantum theory and chemical bonding. In the mandatory lab component, you will be introduced to standard laboratory techniques.</td>
</tr>
<tr>
<td>CHEM 103</td>
<td>General Chemistry 2</td>
<td>3.0</td>
<td>45.0</td>
<td>CHEM 102</td>
<td></td>
<td>You will study properties of liquids, solids and solutions. You will study rates and equilibrium for chemical reactions with application to acids and bases and consider aspects of thermodynamics and electrochemistry. In the mandatory lab component, you will practice standard laboratory techniques.</td>
</tr>
<tr>
<td>CHEM 125</td>
<td>Chemistry 1</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td></td>
<td>Your studies will focus on the chemistry laboratory, structure of the atom, mole relationship, nomenclature, stoichiometry, gases, solution concentrations, and colligative properties. Laboratory experiments will supplement the lectures.</td>
</tr>
<tr>
<td>CHEM 150</td>
<td>Organic Chemistry 1</td>
<td>2.0</td>
<td>30.0</td>
<td>CHEM 151, CHEM 178</td>
<td></td>
<td>You will be introduced to the chemistry of organic compounds. You will begin by reviewing the concepts of chemical bonding. You will use these concepts to examine structure and bonding in typical classes of organic compounds. The names, physical properties and uses of the common functional groups will be introduced. You will examine the chemistry of organic compounds in terms of the preparation of typical functional groups, and the mechanisms of simple reactions.</td>
</tr>
<tr>
<td>CHEM 151</td>
<td>Organic Chemistry 1 Lab</td>
<td>3.0</td>
<td>45.0</td>
<td>CHEM 150</td>
<td></td>
<td>You will be introduced to the safe handling and use of organic chemicals in a laboratory. This will include the proper use of chemical fume hoods and personal protective equipment. You will identify chemical properties of common organic functional groups (alkanes, alkenes, alkynes, alkyl halides, alcohols, ethers, and amines), and test the chemical reactivity of these substances. The concept of stereoisomerism and chirality in organic molecules will also be explored using molecular models. Single step synthetic protocols will be followed, and common synthetic organic techniques will be explored. These techniques will include liquid-liquid extraction, separations based on distillation, filtration, and chromatography, as well as simple characterization of organic molecules by melting point determination, IR spectroscopy, and chromatographic techniques.</td>
</tr>
<tr>
<td>CHEM 152</td>
<td>Organic Chemistry 2</td>
<td>2.0</td>
<td>30.0</td>
<td>CHEM 150</td>
<td>CHEM 153</td>
<td>You will be introduced to the nomenclature and structure of common functional groups (aldehydes, ketones, carboxylic acids, acid chlorides, anhydrides, esters, amides, carbohydrates, and common linkages in polymers) in organic molecules. The chemical properties and reactivities of these organic functional groups will also be explored. You will discuss methods to characterize organic molecules (including the use of infrared, and nuclear magnetic resonance techniques). You will study the properties, structures, reactions and industrial uses of several important classes of compounds.</td>
</tr>
<tr>
<td>CHEM 153</td>
<td>Organic Chemistry 2 Lab</td>
<td>3.0</td>
<td>45.0</td>
<td>CHEM 151</td>
<td>CHEM 152</td>
<td>You will use common synthetic organic techniques to explore the properties and reactivity of common organic molecules (aldehydes, ketones, carboxylic acids, acid chlorides, anhydrides, esters, amides, carbohydrates, and polymers), and to carry out a multi-step synthetic protocol. You will also learn how to prepare and analyze samples by infrared (IR) spectroscopy and nuclear magnetic resonance spectroscopy (NMR).</td>
</tr>
</tbody>
</table>

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### CHEM 160 Introduction to Underground Mining
- **Credit Units:** 6.0
- **Course Hours:** 90.0
You will receive an overview of the mining industry, mining processes, mine safety and mining terminology. Workplace legislation and regulatory agencies will also be examined. Lecture material is supplemented extensively with video resources.

### CHEM 171 General Chemistry
- **Credit Units:** 4.0
- **Course Hours:** 60.0
Corequisite(s): CHEM 172, MATH 178, SAFE 180
You will receive a firm foundation in chemical concepts and principles and the role that chemistry plays in the bioscience field.

### CHEM 172 General Chemistry Lab
- **Credit Units:** 4.0
- **Course Hours:** 60.0
Corequisite(s): CHEM 171, MATH 178, SAFE 180
Your laboratory experiments will be designed to enhance the concepts taught and provide application of these principles, as well as introduce you to laboratory techniques and safety in the lab.

### CHEM 173 Analytical Chemistry
- **Credit Units:** 3.0
- **Course Hours:** 45.0
Prerequisite(s): CHEM 171, CHEM 172, MATH 178
Corequisite(s): STAT 181
Your studies will focus on an intensive survey of the basic methods and chemistry of manual analytical techniques.

### CHEM 174 Analytical Chemistry Lab
- **Credit Units:** 3.0
- **Course Hours:** 45.0
Prerequisite(s): CHEM 171, CHEM 172, MATH 178
Corequisite(s): STAT 181
You will develop quality laboratory practices and their relevance to the field of bioscience. Your laboratory work will focus on the skills required in titrations and gravimetric analysis.

### CHEM 176 Clinical Chemistry 1
- **Credit Units:** 5.0
- **Course Hours:** 70.0
Prerequisite(s): MTER 180, APHY 282*, PROC 180*
Your studies will focus on the principles and application of analytical techniques. These include basic light measuring systems, electrochemistry and laboratory automation. You will develop the skills needed to produce valid analytical results to assess blood gases, electrolytes, carbohydrates and renal function.

### CHEM 178 General Chemistry 1
- **Credit Units:** 4.0
- **Course Hours:** 60.0
Equivalent Course(s): CHEM 188
You will receive an overview of the fundamental chemical theory and properties of the elements and their compounds. The laboratory experiments are designed to help you examine the practical aspects of chemical theory. You will also receive an introduction to laboratory techniques.

### CHEM 179 General Chemistry 2
- **Credit Units:** 4.0
- **Course Hours:** 60.0
Prerequisite(s): CHEM 178, MATH 192
Equivalent Course(s): CHEM 188
You will study chemical theory and properties of aqueous solutions. Your studies will focus on chemical reactions, chemical equilibrium, stoichiometry reactions and the solubility of compounds.

### CHEM 184 Urinalysis
- **Credit Units:** 2.0
- **Course Hours:** 23.0
Prerequisite(s): MTER 180, APHY 282*, PROC 180*
Equivalent Course(s): CHEM 184CE
You will perform and assess chemical and microscopic urinalysis.

### CHEM 189 Radiation Safety, Measurement, and Protection
- **Credit Units:** 6.0
- **Course Hours:** 90.0
You will examine the theory behind radiation detection and protection with emphasis on methods currently used at uranium mines in Saskatchewan. You will learn to operate radiation detection equipment, understand dosimetry, and work with a Code of Practice to ensure worker safety.
**CHEM 192 Industrial Chemistry**  
Credit Units: 5.0  
Course Hours: 70.0  
You will be introduced to the main aspects involved with chemical process industries (or similar industries) and provided with information on industries of importance to Saskatchewan. You will learn to use diagrams in problem solving and to think about processes on an industrial scale. The economic importance and interrelation of industries will also be discussed. When possible, field trips will be used to reinforce the concepts taught in class.

**CHEM 199 Clinical Chemistry 2**  
Credit Units: 3.0  
Course Hours: 40.0  
Prerequisite(s): CHEM 176  
Equivalent Course(s): CHEM 199CE  
You will learn advanced light measuring techniques, enzymology theory and the skills needed to produce valid results to assess cardiovascular, liver and pancreatic function. Various kit tests will be included.

**CHEM 200 Engineering Chemistry**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): MAT 110, MEAS 109  
Corequisite(s): LABS 202  
You will study the general principles of chemistry and chemical calculations. The concepts and application of stoichiometry, concentration determination, equilibrium, acid-base chemistry, pH, volumetric and gravimetric analysis will be used to describe the chemistry of aquatic systems.

**CHEM 201 Environmental Chemistry**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): CHEM 200, LABS 202  
You will apply fundamental chemical principles acquired in previous courses, to environmental processes. You will learn to incorporate chemical principles in analyses of natural process as well as industrial and other anthropogenic impacts on air, water, and soil. You will also study how they apply to environmental monitoring, control and analysis. You will apply these theories to proper sampling protocol and laboratory analysis, with an emphasis on interpreting the laboratory results.

**CHEM 225 Chemistry 2**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): CHEM 125  
You will study equilibrium, acid-base, buffer, oxidation-reduction, metal corrosion prevention. Laboratory experiments will supplement the lectures.

**CHEM 250 Analytical Chemistry**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): CHEM 179, MATH 192, STAT 101, LABT 150  
Corequisite(s): CHEM 251  
You will be introduced to the basic methods and chemistry of manual analytical techniques coupled with a description of selected methods in sampling, separation and data treatment. In your focus on wet chemistry processes, you will solve problems involving acid-base, neutralization, precipitation, solubility equilibrium, complex formation, and oxidation-reduction titrations.

**CHEM 251 Analytical Chemistry Lab**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): CHEM 179, MATH 192, STAT 101, LABT 150  
Corequisite(s): CHEM 250  
You will be introduced to the basic laboratory methods of manual analytical techniques coupled with data treatment. The use of precision laboratory equipment and achieving precision and accuracy in scientific measurements will be emphasized in your laboratory work. You will perform acid-base, neutralization, precipitation, complex formation, and oxidation-reduction titrations. You will perform gravimetric analysis and prepare buffers.

**CHEM 279 Clinical Chemistry 2**  
Credit Units: 3.0  
Course Hours: 50.0  
Prerequisite(s): CHEM 176, IMMU 183*  
You will learn advanced light measuring techniques, as well as enzymology and immunoassay theory. You will develop the skills needed to produce and assess valid results.

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 282</td>
<td>Nuclear Chemistry</td>
<td>2.0</td>
<td>30.0</td>
<td>CHEM 178, MATH 189</td>
</tr>
<tr>
<td></td>
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<td>You will be introduced to the fundamental concepts of nuclear chemistry. Your studies will include: radioactivity, rates of decay, nuclear reactions, radioactive isotopes, radiation measurement, radiation units and safety, the biological effects of radiation, and the use of radiation detection devices in the laboratory.</td>
</tr>
<tr>
<td>CHEM 284</td>
<td>Analytical Chemistry</td>
<td>6.0</td>
<td>90.0</td>
<td>CHEM 179, MATH 192</td>
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<tr>
<td></td>
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<td></td>
<td>You will be introduced to the basic methods and chemistry of manual analytical techniques coupled with a description of selected methods in sampling, separation and data treatment. The use of precision laboratory equipment and achieving precision and accuracy in scientific measurements will be emphasized in your laboratory work. You will perform acid-base, neutralization, precipitation, complex formation and oxidation-reduction titrations. You will also perform gravimetric analyses and solve problems involving solubility equilibrium.</td>
</tr>
<tr>
<td>CHEM 287</td>
<td>Organic Chemistry</td>
<td>4.0</td>
<td>60.0</td>
<td>CHEM 171, CHEM 172</td>
</tr>
<tr>
<td></td>
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<td>You will be introduced to the chemical and physical properties of organic compounds and their uses in the bioscience field. You will study functional groups, nomenclature, simple reactions, stereochemistry, and bonding. You will study the properties, structures, reactions, and industrial uses of important classes of organic compounds. You will use laboratory techniques to extract and characterize organic compounds.</td>
</tr>
<tr>
<td>CHEM 288</td>
<td>Clinical Chemistry 3</td>
<td>2.0</td>
<td>30.0</td>
<td>CHEM 176, IMMU 183*</td>
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<td>You will develop skills to produce and assess valid results in advanced areas of the medical laboratory.</td>
</tr>
<tr>
<td>CHEM 289</td>
<td>Blood Gases</td>
<td>2.0</td>
<td>25.0</td>
<td>CLIN 190, CLIN 193, CLIN 198</td>
</tr>
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<td>Equivalent Course(s): CHEM 289CE</td>
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<td>You will focus on developing the skills needed to produce valid analytical results to assess blood gases with metabolites. You will study the clinical application of these tests, electrochemistry and troubleshooting techniques.</td>
</tr>
<tr>
<td>CHEM 290</td>
<td>Organic Chemistry 2</td>
<td>6.0</td>
<td>90.0</td>
<td>CHEM 191</td>
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<tr>
<td></td>
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<td></td>
<td>Building on the skills you developed in Organic Chemistry 1 (CHEM 191), you will review functional groups, nomenclature, simple reactions, stereochemistry and bonding. You will be introduced to procedures for common functional groups. You will discuss methods of separating and analyzing organic compounds (including the use of infrared, ultraviolet and visible, and nuclear magnetic resonance techniques in structure determination). You will study the properties, structures, reactions and industrial uses of several important classes of compounds in detail.</td>
</tr>
<tr>
<td>CHEM 292</td>
<td>Physical Chemistry 1</td>
<td>4.0</td>
<td>60.0</td>
<td>CHEM 179, MATH 289, STAT 101</td>
</tr>
<tr>
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<td>You will learn the basic principles, laws, and theories of thermodynamics and thermochemistry. You will develop the ability to derive equations that describe the phenomena being studied, and to solve quantitative problems. Your practical experiments in the laboratory will provide the opportunity to investigate different aspects of some of these driving principles.</td>
</tr>
<tr>
<td>CHEM 293</td>
<td>Physical Chemistry 2</td>
<td>4.0</td>
<td>60.0</td>
<td>CHEM 292</td>
</tr>
<tr>
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<td>You will learn the principles and theories of physical chemistry for phase and chemical equilibrium processes. The course will also focus on the effects of intermolecular forces on the properties of matter. You will investigate factors which influence the kinetics of reactions. Your laboratory experiments will give you the opportunity to investigate different aspects of molecular interactions.</td>
</tr>
</tbody>
</table>

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CHEM 295 Plant and Process Chemistry  
Credit Units: 3.0    Course Hours: 45.0  
You will receive a general overview of the main aspects involved with chemical process industries. You will study the industrial and chemical processes used to convert raw material into a variety of products specific to Saskatchewan industries. Tours to various industrial sites will accompany some of the topics you will cover.

CHEM 296 Water Chemistry  
Credit Units: 4.0    Course Hours: 60.0  
Prerequisite(s): CHEM 179  
You will be introduced to the chemistry of water as it applies to the industrial use of water. You will become familiar with the basic methods used in monitoring the water quality in power plant boilers. You will also investigate the treatment of effluent water from industrial processes to ensure it can be safely returned to the environment. The practical component will include analysis for hardness, pH, sedimentation, etc. as well as industrial site visits.

CIRC 102 Printed Circuit Design  
Credit Units: 3.0    Course Hours: 45.0  
Prerequisite(s): MGMT 102, SHOP 110  
You will develop industry-standard schematics using a computer. You will import schematics into a printed circuit board (PCB) design program. You will learn the basic theory regarding printed circuit layout. Some discussion will be devoted to the computer numerical control (CNC) based mechanical subtractive process for rapid PCB prototyping and to designing industry standard PCBs using a software design package.

CIRC 103 Linear Circuits  
Credit Units: 3.0    Course Hours: 49.0  
Prerequisite(s): ELTR 125  
You will learn how to interpret amplifier specifications from a manufacturer's data sheet. You will design operational-amplifier (op-amp) circuits for amplification, comparison, filtering and mathematical operations. You will also design circuits using inverting and non-inverting op-amp configurations.

CIRC 104 Sensors  
Credit Units: 4.0    Course Hours: 60.0  
Prerequisite(s): ELTR 196  
You will use various sensors to convert physical parameters into usable electrical signals.

CIRC 220 Analog Integrated Circuits  
Credit Units: 4.0    Course Hours: 60.0  
Prerequisite(s): ENGE 107, ENGE 200  
You will be introduced to differential amplifiers and be able to identify the characteristics of ideal operational amplifiers (op-amps). You will calculate negative feedback, op-amp frequency responses, comparators, summing amplifiers, integrators, differentiators, active filters, and oscillators.

CIRC 222 Automation Circuits  
Credit Units: 5.0    Course Hours: 75.0  
Prerequisite(s): DGTL 225, DGTL 226, ENGE 224, INST 220, INST 205*  
You will study the analysis, design and trouble-shooting of automation equipment. You will gain insight into microprocessor applications in industrial measurement and control.

CIRC 224 Digital Systems  
Credit Units: 5.0    Course Hours: 80.0  
Prerequisite(s): DGTL 202  
You will study advanced combinational and sequential logic design and finite state machines. You will study analog-to-digital and digital-to-analog converter circuits and apply them in digital circuits. You will also study some of the families of digital integrated circuits including transistor-transistor logic (TTL), complementary metal-oxide-semiconductor (CMOS) logic and emitter-coupled logic (ECL). You will apply your skills by developing an automated device in a project.

CKEY 101 Keyboarding 1  
Credit Units: 2.0    Course Hours: 32.0  
Equivalent Course(s): CKEY 101CE  
You will develop ergonomic and keyboarding techniques to attain accuracy and a speed of 30 words per minute on two different three-minute timed writings with a maximum of three errors.

CKEY 102 Keyboarding 2  
Credit Units: 2.0    Course Hours: 32.0  
Prerequisite(s): CKEY 101  
Equivalent Course(s): CKEY 102CE  
You will develop ergonomic and keyboarding techniques to attain a speed of 45 words per minute with 98% accuracy on two separate five-minute timed writings.
<table>
<thead>
<tr>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CKEY 188 Word Processing</strong></td>
</tr>
<tr>
<td>Credit Units: 2.0 Course Hours: 30.0</td>
</tr>
<tr>
<td>You will learn to prepare a variety of documents relative to their field of study while expanding their expertise in using more advanced Microsoft Word features.</td>
</tr>
<tr>
<td><strong>CKNG 100 Food Presentation and Garnish (Theory)</strong></td>
</tr>
<tr>
<td>Credit Units: 1.0 Course Hours: 15.0</td>
</tr>
<tr>
<td>You will learn the fundamental principles and procedures of hot and cold food presentation and garnish. This will include concepts and principles related to the planning, preparation and service of buffets and plate service.</td>
</tr>
<tr>
<td><strong>CKNG 101 Food Presentation and Garnish (Practical)</strong></td>
</tr>
<tr>
<td>Credit Units: 2.0 Course Hours: 30.0</td>
</tr>
<tr>
<td>You will apply the principles and procedures you learned in Food Presentation and Garnish (Theory) CKNG 100. This will include arranging and garnishing foods on plates and platters and planning, preparing and serving hot and cold buffets.</td>
</tr>
<tr>
<td><strong>CKNG 102 Garde Manger (Theory)</strong></td>
</tr>
<tr>
<td>Credit Units: 1.0 Course Hours: 15.0</td>
</tr>
<tr>
<td>Equivalent Course(s): FOOD 182</td>
</tr>
<tr>
<td>You will learn the procedures for preparing hot and cold sandwiches, salads, fruits and salad dressings.</td>
</tr>
<tr>
<td><strong>CKNG 103 Garde Manger (Practical)</strong></td>
</tr>
<tr>
<td>Credit Units: 5.0 Course Hours: 70.0</td>
</tr>
<tr>
<td>You will prepare hot and cold sandwiches, fruits, salads and salad dressings.</td>
</tr>
<tr>
<td><strong>CKNG 104 Vegetables, Starches and Pasta (Theory)</strong></td>
</tr>
<tr>
<td>Credit Units: 1.0 Course Hours: 15.0</td>
</tr>
<tr>
<td>You will learn the fundamental principles and procedures to prepare, cook, serve and store vegetables, starches and pasta.</td>
</tr>
<tr>
<td><strong>CKNG 105 Vegetables, Starches and Pasta (Practical)</strong></td>
</tr>
<tr>
<td>Credit Units: 5.0 Course Hours: 70.0</td>
</tr>
<tr>
<td>You will practice the procedures you learned in CKNG 104 (Vegetables, Starches and Pasta Theory). You will select, prepare, cook, serve and store fresh vegetables, starches and pasta products.</td>
</tr>
<tr>
<td><strong>CKNG 106 Stocks, Soups, and Sauces (Theory)</strong></td>
</tr>
<tr>
<td>Credit Units: 1.0 Course Hours: 15.0</td>
</tr>
<tr>
<td>You will be introduced to the major categories of stocks, soups and sauces. You will learn the procedures and quality standards for preparing stocks, soups and sauces.</td>
</tr>
<tr>
<td><strong>CKNG 107 Stocks, Soups and Sauces (Practical)</strong></td>
</tr>
<tr>
<td>Credit Units: 5.0 Course Hours: 70.0</td>
</tr>
<tr>
<td>You will apply the procedures and standards you learned in CKNG 106 ( Stocks, Soups and Sauces Theory). You will prepare stocks, soups, thickening agents and sauces.</td>
</tr>
<tr>
<td><strong>CKNG 108 Breakfast and Dairy (Theory)</strong></td>
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<tr>
<td>Credit Units: 1.0 Course Hours: 15.0</td>
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<tr>
<td>The course provides an introduction to the major types of dairy products. You will learn procedures for cooking eggs and preparing breakfast breads, cereals, meats and potatoes. You will also learn procedures for storing, serving and cooking with cheese.</td>
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<tr>
<td><strong>CKNG 109 Breakfast and Dairy (Practical)</strong></td>
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<tr>
<td>Credit Units: 4.0 Course Hours: 55.0</td>
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<tr>
<td>You will prepare and produce breakfast and dairy products. This includes cooking eggs using a variety of methods, preparing various omelettes, breakfast breads, breakfast meats and potatoes. You will also store, serve and cook with cheese.</td>
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<tr>
<td><strong>CKNG 110 Basic Cooking Principles</strong></td>
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<tr>
<td>Credit Units: 1.0 Course Hours: 18.0</td>
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<tr>
<td>Equivalent Course(s): FOOD 189</td>
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<tr>
<td>The course provides an introduction to the fundamental principles and methods that are the foundation of the cooking trade. You will study the major cooking methods and preliminary seasoning, flavouring, cooking, mise en place and pre-preparation techniques.</td>
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<tr>
<td><strong>CKNG 118 A la Carte Cooking</strong></td>
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<tr>
<td>Credit Units: 4.0 Course Hours: 60.0</td>
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<tr>
<td>You will prepare a variety of meals and food items appropriate for an a la carte cooking environment. The focus will be on integrating a wide range of skills you learned in previous courses in the program.</td>
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</table>
### Course Descriptions

**CKNG 119 Breakfast Cooking Fundamentals**  
Credit Units: 4.0  
Course Hours: 60.0  
You will prepare breakfast and dairy products. This includes cooking eggs using a variety of methods; preparing omelets, frittatas, pancakes, waffles and French toast, cooking breakfast meats and potatoes.

**CKNG 180 Basic Cooking Principles**  
Credit Units: 2.0  
Course Hours: 35.0  
Prerequisite(s): EQPT 108, SFTY 192, SANT 181  
Equivalent Course(s): CKNG 110  
The course provides an introduction to the fundamental principles and methods that are the foundation of the cooking trade. You will study the major cooking methods and preliminary seasoning, flavoring, cooking, mise en place and pre-preparation techniques.

**CKNG 181 Bakery 1**  
Credit Units: 5.0  
Course Hours: 70.0  
Prerequisite(s): CKNG 180  
Equivalent Course(s): CKNG 181CE  
The course provides an introduction to the basic principles of baking, baking ingredients and their uses. You will learn the procedures for producing yeast dough and for quick breads and prepare various breads, biscuits, muffins, and cookies.

**CKNG 182 Bakery 2**  
Credit Units: 5.0  
Course Hours: 70.0  
Prerequisite(s): CKNG 181  
Equivalent Course(s): CKNG 182CE  
You will learn the basic principles of making pies, pie fillings, puff pastry and éclair paste products and specialty cookies. You will prepare pie dough; pie fillings, baked pies, unbaked pies, bread and rolls; puff pastry products; fruit cups, Danish pastry, and cookies.

**CKNG 183 Food Presentation and Garnish**  
Credit Units: 5.0  
Course Hours: 70.0  
Prerequisite(s): CKNG 180  
You will learn the fundamental principles and procedures of hot and cold food presentation and garnish. Classroom and lab experiences will help you plan, prepare, and serve hot and cold buffets.

**CKNG 184 Garde Manger**  
Credit Units: 5.0  
Course Hours: 70.0  
Prerequisite(s): CKNG 180  
Equivalent Course(s): CKNG 184CE  
The course provides an introduction to procedures for preparing hot and cold sandwiches, salads, fruits and salad dressings. You will prepare salads, sandwiches, and cold entree plates.

**CKNG 185 Vegetables, Starches and Pasta**  
Credit Units: 5.0  
Course Hours: 70.0  
Prerequisite(s): CKNG 180  
Equivalent Course(s): CKNG 185CE  
You will learn procedures for preparing, cooking, serving and storing vegetables, starches and pasta. You will select, prepare, cook, serve and store fresh vegetables, starches and pasta products.

**CKNG 186 Stocks, Soups, and Sauces 1**  
Credit Units: 5.0  
Course Hours: 70.0  
Prerequisite(s): CKNG 180  
Equivalent Course(s): CKNG 186CE  
Your studies will focus on the procedures and quality standards for preparing stocks, soups and leading sauces. You will prepare the major types of soups, sauces and stocks, thickening agents and pan gravies.

**CKNG 187 Breakfast and Dairy**  
Credit Units: 5.0  
Course Hours: 70.0  
Prerequisite(s): CKNG 180  
Equivalent Course(s): CKNG 187CE  
You will learn the procedures for breakfast cookery including procedures for cooking with milk, cream and cheese products. You will prepare eggs using a variety of methods, and also a variety of other breakfast items including breads, cereals, meats and potatoes.

**CKNG 188 A la Carte Cooking**  
Credit Units: 5.0  
Course Hours: 70.0  
Prerequisite(s): CKNG 180  
Equivalent Course(s): CKNG 118  
You will prepare a variety of meals and food items appropriate for an a la carte cooking environment. You will integrate a wide range of skills you learned in previous courses in the program.

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Course Descriptions

CKNG 189 Quantity Food Production
Credit Units: 5.0  Course Hours: 70.0
Prerequisite(s): CKNG 180
Equivalent Course(s): FOOD 100
You will prepare, produce and serve foods in large quantities. You will apply portion and quality controls.

CKNG 190 Short Order Food Production
Credit Units: 5.0  Course Hours: 70.0
Prerequisite(s): CKNG 180
Equivalent Course(s): FOOD 102
You will plan, prepare and serve short order food items.

CKNG 191 Meat Seafood and Poultry Processing
Credit Units: 5.0  Course Hours: 70.0
Prerequisite(s): CKNG 180
Equivalent Course(s): CKNG 191CE
Your studies will focus on the composition and handling of meat, poultry and seafood following the Canadian systems for classifying, inspecting and grading of meat, poultry and seafood.

CKNG 192 Meat, Seafood and Poultry Cooking
Credit Units: 5.0  Course Hours: 70.0
Prerequisite(s): CKNG 180
Equivalent Course(s): CKNG 192CE
The course provides an introduction to the general principles of cooking and handling meats, seafood and poultry. You will learn a variety of preparation and cooking techniques for beef, pork, poultry, lamb, veal and seafood. You will apply dry and moist heat methods in the preparation of these products.

CKNG 193 Kitchen Operations
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): CKNG 180
You will apply the basic fundamentals of kitchen operations to manage a successful professional kitchen.

CKNG 280 Garde Manger 2
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): CKNG 184
Equivalent Course(s): CKNG 280CE
You will study advanced theory and cooking techniques for garde manger. You will prepare items that include hot and cold hors d’oeuvres and a variety of cold processed meat products. You will also evaluate various forms of cheese.

CKNG 281 Soups and Sauces 2
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): CKNG 186
Building on the skills you developed in Stocks, Soups and Sauces 1, your studies will explore current trends in soups and sauce cookery including pairing soups and sauces with other food items and finishing techniques. You will prepare a variety of soups from the major soup categories as well as specialty soups. You will also prepare specialty sauces and garnishes.

CKNG 282 Meat, Poultry and Seafood 2
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): CKNG 192
Building on the skills you developed in Meat Seafood and Poultry Cooking, you will apply cooking techniques for premier, exotic and game meat, poultry and seafood cookery.

CKNG 283 Vegetables, Fruits and Starches 2
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): CKNG 185
You will prepare vegetables, fruits, grains and starches using multi-step preparation techniques.

CKNG 284 Baking and Pastry Arts
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): CKNG 182
Building on the skills you developed in Bakery 1 and Bakery 2, you will prepare and finish high end pastry products and fillings.
Course Descriptions

CKNG 285 World Cuisines
Credit Units: 5.0 Course Hours: 75.0
Prerequisite(s): CKNG 180
You will be introduced to world cuisines. The course then examines three trending world cuisines and provides you with an opportunity to prepare a variety of foods from these three cuisines.

CKNG 286 Field to Fork Experience
Credit Units: 4.0 Course Hours: 60.0
Prerequisite(s): CKNG 180
You will learn the benefits of raw, unprocessed and organic foods. The course also examines the food chain as it relates to local producers. You will have an opportunity to prepare locally-produced foods.

CKNG 287 Indigenous Cuisines
Credit Units: 4.0 Course Hours: 60.0
Prerequisite(s): CKNG 180
You will examine the history and significance of Indigenous cuisines. You will study a variety of food used in Indigenous cuisine and prepare a feast.

CKNG 288 Nutrition and Special Diet Cooking
Credit Units: 5.0 Course Hours: 75.0
Prerequisite(s): CKNG 180
You will examine in-depth cooking with a focus on nutrition and special diet concerns.

CKNG 289 Contemporary Cuisine
Credit Units: 5.0 Course Hours: 75.0
Prerequisite(s): CKNG 180
Your studies will expose you to the current developments and popular food trends in the cooking profession. You will prepare contemporary foods in a restaurant setting.

CKNG 290 Catering and Special Event Planning
Credit Units: 5.0 Course Hours: 75.0
Prerequisite(s): CKNG 180
Equivalent Course(s): CKNG 290CE
You will plan and prepare foods for a catered event.

CKNG 291 Wines and Beverages
Credit Units: 3.0 Course Hours: 45.0
Prerequisite(s): CKNG 180
You will gain a working knowledge of wine and wine pairings important to today’s successful chefs. You will also examine other types of beverages significant to food service operation. You will have an opportunity to prepare a variety of beverages.

CKNG 292 Food Services Management
Credit Units: 4.0 Course Hours: 60.0
You will study operational management techniques and skills important for today’s successful chefs. The course is composed of several sections and examines some key areas in this field including managing the front of the house, basics of table service, customer service and exceeding expectations, and computer and point of sale applications.

CLIM 200 Meteorology
Credit Units: 3.0 Course Hours: 45.0
You will study properties of the atmosphere and the conditions that produce and modify weather. Through practical exercises, you will interpret and forecast weather conditions.

CLIN 100 Clinical-1 Special Care
Credit Units: 7.0 Course Hours: 112.0
Prerequisite(s): SPCR 180, SPCR 104, SPCR 105, ANAT 100, SPCR 192, SPCR 100, SFTY 194, COMM 291
Equivalent Course(s): CLIN 100CE, PRAC 101
In a long term care setting, you will participate in a supervised clinical experience following the hours of work of that site. You will assist clients who require personal care/comfort.

CLIN 101 Clinical - Records Management and Professionalism
Credit Units: 4.0 Course Hours: 60.0
Prerequisite(s): HINF 160*
Equivalent Course(s): CLIN 101CE, CLIN 161
In this clinical experience, you will apply basic health information management principles to theory and the clinical setting. You will focus on basic health record procedures including chart assembly and chart review. You will also learn about electronic records management. You will apply professionalism, employability skills and various health information management duties while in the workplace setting.
### Course Descriptions

#### CLIN 102 Clinical - Coding 1
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): CLIN 101*, MED 161*, APHY 100*
Equivalent Course(s): CLIN 102CE

Your clinical experience will focus on the introductory concepts behind coding with the International Statistical Classification of Diseases and Related Health Problems, 10th revision, Canada/Canadian Classification of Health Interventions (ICD-10-CA/CCI). You will learn how to code basic neoplasm and infection cases. You will also learn about the Canadian Institute for Health Information.

#### CLIN 103 Health Assessment and Praxis 1
Credit Units: 10.0  Course Hours: 150.0
Corequisite(s): PHAR 101

You will demonstrate, at an introductory level, the assessments and skills associated with the care of adult and geriatric patients. Your experiential learning will provide opportunities to practice your skills and abilities for patients in long term care environments. You will apply the nursing process and principles of patient teaching and practice documentation.

#### CLIN 104 Health Assessment and Praxis 2
Credit Units: 9.0  Course Hours: 135.0
Prerequisite(s): BIOL 100, CLIN 103, NURS 163, NURS 171, NURS 172, PHAR 101
Corequisite(s): PHAR 102
Equivalent Course(s): NURS 238

You will practice assessments and skills associated with rehabilitative and supportive care. Your experiential learning will provide opportunities for assessment and care of adults with chronic health challenges. You will demonstrate the concepts of patient safety, critical thinking, and evidence informed practice in the delivery of patient care and teaching.

#### CLIN 105 Integrated Clinical Practice 1
Credit Units: 8.0  Course Hours: 120.0
Prerequisite(s): BIOL 101, CLIN 104, NURS 176, NURS 240, NURS 293, PHAR 102
Equivalent Course(s): PRAC 260

You will apply your knowledge and skills related to holistic nursing care of patients. Your experiential learning will focus on rehabilitative and supportive care for patients experiencing a variety of health challenges. With faculty guidance, you will demonstrate the principles of health teaching and perform complete and focused health assessments. You will demonstrate professional behaviour and practice collaborative relationships with patients and the interprofessional team to deliver safe, competent, and ethical patient care.

#### CLIN 110 Clinical Dental Assisting Practice 1
Credit Units: 6.0  Course Hours: 90.0
Prerequisite(s): APHY 160, DENT 159, DENT 166, DNTL 167, DNTL 168, DNTL 169, DNTL 171, DNTL 172, DNTL 173, RDGR 161, DNTL 262*, RDGR 162*

You will develop skills and knowledge in clinical dental assisting for client care and dental office reception skills in the Saskatchewan Polytechnic Dental Assisting clinic. You will progress towards the competence required of an entry-level dental assistant.

#### CLIN 111 Clinical Dental Assisting Practice 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CLIN 110, DENT 180, DENT 282, DNTL 174, DNTL 262, PATH 262, PRAC 115, RDGR 162

You will perform clinical dental assisting skills for client care and dental office reception skills in the Saskatchewan Polytechnic Dental Assisting Clinic. You will discuss the application of professional standards and plan for employment. You will achieve competence required of an entry-level dental assistant.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
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</thead>
<tbody>
<tr>
<td>CLIN 160</td>
<td>Clinical Component</td>
<td>4.0</td>
<td>60.0</td>
<td>HLTH 165, HLTH 167</td>
<td>CLIN 160CE</td>
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<td>You will complete a 60 hour clinical practice education experience that integrates the knowledge from both the theory courses and the lab course (HLTH 165). Your clinical practice education experiences will be scheduled in an agency chosen by you in conjunction with the faculty of the Basic Diabetes Education for Health Care Providers program. You will be guided and directed by an experienced agency staff member who will also evaluate your competence. You will be expected to demonstrate responsibility and accountability for your own learning. You will be in an unpaid student role and require time off work to complete the clinical component.</td>
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<tr>
<td>CLIN 190</td>
<td>Clinical Radiography</td>
<td>3.9</td>
<td>582.0</td>
<td>SIMU 280</td>
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<td>You will participate in a supervised clinical experience at an assigned clinical site. Upon successfully completing your clinical experience, you will be able to perform routine projections/views for the abdomen and specified skeletal and respiratory systems. You will also know how to operate radiographic equipment and critique resulting radiographs. You must demonstrate appropriate patient care and radiation safety and protection.</td>
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<tr>
<td>CLIN 192</td>
<td>Clinical Introduction</td>
<td>2.0</td>
<td>36.0</td>
<td>INFC 180, ETHC 185</td>
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<td>You will participate in a supervised clinical experience at an assigned clinical site. You will observe radiographic procedures in the various areas of the clinical site where they may be performed.</td>
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<tr>
<td>CLIN 193</td>
<td>Clinical Laboratory</td>
<td>3.1</td>
<td>468.0</td>
<td>SIMU 280</td>
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<td>You will participate in a supervised clinical experience at an assigned clinical site. You will have the opportunity to become competent in performing routine laboratory procedures by various methodologies. You will gain experience in the daily operation of the hematology and chemistry laboratory. You will also apply the previous skills you learned to perform, evaluate and report routine laboratory results.</td>
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<tr>
<td>CLIN 198</td>
<td>Clinical ECG</td>
<td>2.0</td>
<td>37.0</td>
<td>SIMU 280 or SIMU 100</td>
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<td>You will participate in a supervised clinical experience at an assigned clinical site. Upon successfully completing this experience, you will be able to competently perform ECGs.</td>
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<tr>
<td>CLIN 200</td>
<td>Clinical Experience 1</td>
<td>2.0</td>
<td>32.0</td>
<td>NRSG 206, NRSG 209</td>
<td>CLIN 200CE</td>
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<td>Note: Prior to participating in CLIN 200 (Clinical Experience 1), you must have medical fitness, current immunization and current CPR Level &quot;C&quot; (BLS Level &quot;C&quot;). You will attend a 32-hour orientation practicum to re-familiarize yourself with the hospital setting, new equipment and the health care environment. You will assist clients with basic care, utilizing the nursing process, and hone your assessment, critical thinking, problem solving and decision making skills. You will use the skills you reviewed and practiced in NRSG 206 (Nursing Re-entry Lab 1) including communication with respect and courtesy, and conduct consistent with the SRNA standards and competencies and the CNA code of ethics. You will work on a one-to-one basis under the guidance of an experienced registered nurse who has volunteered to be a clinical preceptor.</td>
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<tr>
<td>CLIN 201</td>
<td>Clinical Experience 2</td>
<td>2.0</td>
<td>32.0</td>
<td>NRSG 207, NRSG 208, NRSG 211, NRSG 212</td>
<td>CLIN 201CE, CLIN 276</td>
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<td>You will apply relevant theory, knowledge, skills and judgments from all of the courses and labs in the program. You will work on a one-to-one basis under the guidance of a registered nurse who has volunteered to be a clinical preceptor. The length of the clinical experience is 240 hours.</td>
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<tr>
<td>CLIN 209</td>
<td>Clinical Experience</td>
<td>2.0</td>
<td>240.0</td>
<td>NRSG 223</td>
<td>CLIN 209CE</td>
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<td>Your clinical experience will help you make the transition into clinical nursing in Canada. You will demonstrate competence in theoretical knowledge specific to the clinical area. To meet the clinical learning outcomes and perform a self-evaluation, effective communication skills are important.</td>
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### CLIN 213 Clinical 1
Credit Units: 10.0  Course Hours: 150.0  
Prerequisite(s):  NRSG 233, NRSG 234, NRSG 235, (NEPS 119 or APHY 262), (NEPS 216 or PSYC 163), NRSG 236*, NRSG 237*

Equivalent Course(s):  NEPS 292, NURS 238

You will have the opportunity to apply theory and concepts learned from Term 1 to Term 3 of the Psychiatric Nursing program. You will use critical reflection, critical thinking and clinical judgment to apply wholistic psychiatric nursing care in a psycho-geriatric setting with assigned clients.

### CLIN 214 Clinical 2
Credit Units: 11.0  Course Hours: 168.0  
Prerequisite(s):  CLIN 213, NRSG 238*, NRSG 239*, NRSG 240*, NRSG 241*

You will have the opportunity to apply concepts learned from Term 1 to Term 4 of the Psychiatric Nursing program. You will use critical reflection, critical thinking and clinical judgment to apply wholistic psychiatric nursing care in acute psychiatry with assigned clients.

### CLIN 215 Clinical 3
Credit Units: 11.0  Course Hours: 168.0  
Prerequisite(s):  CLIN 214, NRSG 242*, NRSG 243*, NRSG 244*, NRSG 245*, NRSG 246*

You will have the opportunity to apply theory and concepts learned during Term 1 to Term 5 of the Psychiatric Nursing program. You will use critical reflection, critical thinking and clinical judgment to apply wholistic psychiatric nursing care in a child and/or adolescent practice setting. You will apply the new theory you are learning in Term 5 to the clinical setting.

### CLIN 216 Clinical 4
Credit Units: 11.0  Course Hours: 168.0  
Prerequisite(s):  CLIN 215, NRSG 247*, NRSG 248*

You will have the opportunity to apply concepts learned during Term 1 to Term 5 of the Psychiatric Nursing program and apply new concepts learned during Term 6. You will use critical reflection, critical thinking and clinical judgment to apply wholistic psychiatric nursing care to assigned clients in a selected setting.

### CLIN 217 Consolidated Clinical 5
Credit Units: 9.0  Course Hours: 140.0  
Prerequisite(s):  CLIN 216, NRSG 249*, NRSG 250*

You will have the opportunity to consolidate concepts learned during Term 1 to Term 6 of the Psychiatric Nursing program and apply new concepts learned during Term 7. You will use critical reflection, critical thinking and clinical judgment to apply wholistic psychiatric nursing care to assigned clients in a clinical setting.

### CLIN 218 Preceptored Clinical 6
Credit Units: 16.0  Course Hours: 245.0  
Prerequisite(s):  CLIN 217

During your selected preceptored experience, you will be given the opportunity to demonstrate integration, synthesis and application of the theoretical concepts of the Psychiatric Nursing program. You will use critical reflection, critical thinking and clinical judgment to demonstrate your ability to model professional practice roles and functions.

### CLIN 219 Clinical-2 Special Care
Credit Units: 7.0  Course Hours: 105.0  
Prerequisite(s):  CLIN 100, SPCR 101, COMM 197, COMM 291, DEMC 183, DEMC 280, HUMD 187, NUTR 198, SPCR 184, SPCR 285, SPCR 102, SPCR 103, SFTY 194, SANT 181

Equivalent Course(s):  CLIN 219CE

In a long term care setting, you will participate in a supervised clinical experience following the hours of work of that clinical site. You will provide care for clients who require assistance with activities of daily living.

### CLIN 220 Perioperative Nursing Practice/LPN
Credit Units: 27.0  Course Hours: 400.0  
Prerequisite(s):  NURS 202

You will participate in a 10-week clinical experience that is limited to specific pre-selected agencies. Within the role of the LPN, you will integrate all aspects of the program into the delivery of patient care.

### CLIN 221 Perioperative Nursing Practice/RN
Credit Units: 27.0  Course Hours: 400.0  
Prerequisite(s):  NURS 202

You will participate in a 10-week clinical experience that is limited to specific pre-selected agencies. Within the role of the RN, you will integrate all aspects of the program into the delivery of patient care.

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CLIN 231 Clinical Practice Education
Credit Units: 4.0       Course Hours: 60.0
Prerequisite(s):   HLTH 272, HLTH 273
Equivalent Course(s): CLIN 231CE

Your clinical practice education experience consists of a 60-hour opportunity to integrate the theory you learned and the skills gained during the lab into practice. Your clinical experiences will be scheduled in an agency chosen by you in conjunction with the faculty of the Diabetes Education for Health Care Professionals program. You will be guided and evaluated by an experienced agency staff member. You will be expected to demonstrate responsibility and accountability for your own learning. You will be in an unpaid student role and require time off work to complete the clinical component.

CLIN 232 Clinical Home Care/Community Services
Credit Units: 3.0       Course Hours: 40.0
Prerequisite(s):   CLIN 100
Equivalent Course(s): CLIN 232CE

In the home care/community services clinical setting, you will work under the supervision of a mentor or a staff member. You will demonstrate employability skills, comply with agency policies and procedures, communicate effectively, provide basic client care, and ensure client and personal safety.

CLIN 233 Fundamental Clinical Practice Education in Critical Care
Credit Units: 5.0       Course Hours: 72.0
Prerequisite(s):   NRSG 284, NRSG 285*

You will participate in a clinical experience focused on the major body systems and related alterations in function. You will integrate aspects of the theory into the delivery of patient care. You will be guided by a faculty member and/or a clinical nurse educator and critical care preceptor in the clinical practice education.

CLIN 234 Progressive Clinical Practice Education in Critical Care
Credit Units: 7.0       Course Hours: 108.0
Prerequisite(s):   NRSG 285

You will participate in clinical practice education and manage the care of critical care patients with multisystem dysfunction through integrating all aspects of the program into your nursing practice in the critical care area. You will be guided by a faculty member and/or a clinical nurse educator and critical care preceptor in the clinical practice education.

CLIN 235 Emergency Nursing Clinical Practice Education
Credit Units: 10.0       Course Hours: 144.0
Prerequisite(s):   NRSG 297

You will function according to health care facility policy and registered nursing scope of practice. Clinical days 1-6 You will integrate and apply emergency nursing theory into your clinical practice. You will be guided by several health care providers, including a faculty member, a clinical educator and your preceptor in the clinical practice education. You will gain hands-on experience with a variety of assessment and clinical interventions for patients with lower acuity presentations. Clinical days 7-12 You will integrate and apply evidence informed practice in caring for higher acuity emergency patients. You will be supported by several health care providers, including a faculty member, a clinical educator and your preceptor in the clinical practice education. You will gain hands-on experience caring for multiple patients with varying acuity presentations.

CLIN 236 Clinical - Coding 2
Credit Units: 4.0       Course Hours: 60.0
Prerequisite(s):   CLIN 102, APHY 200*, PATH 272*
Equivalent Course(s): CLIN 236CE

Your clinical experience will focus on coding with the International Statistical Classification of Diseases and Related Health Problems, 10th revision, Canada/Canadian Classification of Health Interventions (ICD-10-CA/CCI). You will study body systems including: skin, musculoskeletal, cardiovascular, blood and respiratory. You will examine orthopaedic trauma cases. You will also learn how to abstract acute care data.

CLIN 237 Clinical - Coding 3
Credit Units: 7.0       Course Hours: 105.0
Prerequisite(s):   CLIN 236, APHY 200*, PATH 273*
Equivalent Course(s): CLIN 237CE

Your clinical experience will build on the skills developed in Clinical - Coding 1 (CLIN 102). You will focus on coding with the International Statistical Classification of Diseases and Related Health Problems, 10th revision, Canada/Canadian Classification of Health Interventions (ICD-10-CA/CCI). You will study body systems including: digestive, hepatobiliary, urinary, reproductive, nervous, special senses and endocrine systems. You will examine nutritional, metabolic, mental and behavioural disorder cases. You will also learn how to abstract ambulatory care data.
### CLIN 238 Large Animal Clinical
- **Credit Units:** 5.0  
- **Course Hours:** 80.0  
- **Prerequisite(s):** PHAR 281, PRAC 284, VETR 282  
- **Corequisite(s):** ANES 282, CLIN 239, VETR 289

You will assist in receiving large animal out-patient cases, help manage and treat hospitalized cases, and prepare patients for hospital discharge.

### CLIN 239 Small Animal Clinical
- **Credit Units:** 5.0  
- **Course Hours:** 80.0  
- **Prerequisite(s):** PHAR 281, PRAC 284, VETR 295  
- **Corequisite(s):** ANES 282, CLIN 238, VETR 289

You will assist in receiving small animal out-patient cases, help manage and treat hospitalized cases, and prepare patients for hospital discharge.

### CLIN 240 Health Assessment and Praxis 3
- **Credit Units:** 13.0  
- **Course Hours:** 195.0  
- **Prerequisite(s):** CLIN 105

You will apply knowledge and skills associated with curative and restorative care and perform focused health assessments. Your experiential learning will include organizing care for adult patients with acute health challenges in the context of medical and surgical environments. You will plan patient-centred care, prepare patient teaching, and apply concepts of patient safety and critical thinking supported by your use of evidence informed practice.

### CLIN 241 Health Assessment and Praxis 4
- **Credit Units:** 15.0  
- **Course Hours:** 225.0  
- **Prerequisite(s):** CLIN 240, NURS 294, NRSG 257, NRSG 258, SOCI 201  
- **Corequisite(s):** PHAR 215

You will perform assessments and skills with increasing proficiency for adult patients requiring curative and restorative medical and surgical care. You will plan holistic nursing care supported by evidence informed practice and critical thinking. Your experiential learning will provide opportunities to demonstrate knowledge and skills related to maternal, newborn and pediatric patients. You will examine medical emergencies and plan care with increased interdependence in collaboration with the health care team.

### CLIN 242 Integrated Clinical Practice 2
- **Credit Units:** 11.0  
- **Course Hours:** 165.0  
- **Prerequisite(s):** CLIN 241, NURS 292, NRSG 298, NRSG 299, PHAR 215

You will plan safe, competent patient care working in partnership with a licensed practical nurse. You will manage patient care with increased interdependence and confidence, demonstrating enhanced organization, decision-making, and critical thinking abilities. You will examine the leadership role of the practical nurse in the context of the health care team. You will examine the value of reflective practice in relation to lifelong learning. You will establish collaborative relationships, using professional communication, and demonstrate respect for diversity and ethical practice.

### CLIN 276 Nursing Re-entry Clinical B
- **Credit Units:** 11.0  
- **Course Hours:** 160.0

Students will participate in an instructor-supervised clinical experience of up to one month in Regina in order to demonstrate competent performance of the clinical objectives. Clinical experience will be scheduled once or twice per year in surgical or medical areas depending on demand. Option B is designed to meet the needs of persons who are required to participate in the Nursing Update Program on the orders of the Saskatchewan Registered Nurses Association Discipline Committee, nurses involved in progressive discipline in the workplace who require knowledge and skill updating and evaluation, students who have difficulty with theory, lab or preceptor-supervised clinical portions of Option A, and students who have been unsuccessful in the Nursing Update Program, Option A.

### CLIN 279 Administration of Medications Clinical
- **Credit Units:** 2.0  
- **Course Hours:** 48.0  
- **Prerequisite(s):** PHAR 264*

This course consists of a supervised clinical experience. The length of the clinical experience is six 8-hour shifts. Students will not be paid during the experience.

### CLIN 284 Clinical Hematology
- **Credit Units:** 19.0  
- **Course Hours:** 288.0  
- **Prerequisite(s):** APHY 282, BIOL 181, CHEM 184, CHEM 288, CLIN 291, ETHC 185, ETHC 280, HEMA 283, HEMA 188, HEMA 189, HSTC 187, MICR 189, PATH 181, QC 193, QC 194, TRFS 182

You will participate in a supervised clinical experience. Upon successful completion, you will be able to perform analytical testing in a routine clinical hematology laboratory.
**Course Descriptions**

**CLIN 285 Clinical Transfusion Science**
Credit Units: 12.0  Course Hours: 180.0
Prerequisite(s): APHY 282, BIOL 181, CHEM 184, CHEM 288, CLIN 291, ETHC 185, ETHC 280, HEMA 283, HEMA 188, HEMA 189, HSTC 187, MICR 189, PATH 181, QC 193, QC 194, TRFS 182

You will participate in a supervised clinical experience. Upon successfully completing this experience, you will be able to perform analytical testing in a routine clinical transfusion science laboratory.

**CLIN 286 Clinical Microbiology**
Credit Units: 22.0  Course Hours: 324.0
Prerequisite(s): APHY 282, BIOL 181, CHEM 184, CHEM 288, CLIN 291, ETHC 185, ETHC 280, HEMA 283, HEMA 188, HEMA 189, HSTC 187, MICR 189, PATH 181, QC 193, QC 194, TRFS 182

You will participate in a supervised clinical experience. Upon successfully completing this experience, you will be able to apply basic and specific skills for the identification and interpretation of common clinical microorganisms for all body sites.

**CLIN 287 Clinical Histotechnology**
Credit Units: 10.0  Course Hours: 144.0
Prerequisite(s): APHY 282, BIOL 181, CHEM 184, CHEM 288, CLIN 291, ETHC 185, ETHC 280, HEMA 283, HEMA 188, HEMA 189, HSTC 187, MICR 189, PATH 181, QC 193, QC 194, TRFS 182 or SIMU 282

You will participate in a supervised clinical experience. Upon successfully completing this experience, you will be able to perform processing, cutting and staining procedures in a routine clinical histotechnology laboratory.

**CLIN 288 Clinical - Coding 4**
Credit Units: 10.0  Course Hours: 150.0
Prerequisite(s): HINF 261*
Equivalent Course(s): CLIN 288CE

You will build on your skills in International Statistical Classification of Diseases and Related Health Problems, 10th revision, Canada/Canadian Classification of Health Interventions (ICD-10-CA/CCI) coding and abstracting. You will study human immunodeficiency virus (HIV), infections, sepsis, viral hepatitis, pregnancy/childbirth and newborn coding cases. You will also study complex coding cases. Your studies will include a review of coding practices and guidelines, data quality issues, report writing and data presentation.

**CLIN 291 Specimen Procurement and Management 1**
Credit Units: 2.0  Course Hours: 36.0
Prerequisite(s): PROC 181

You will participate in a supervised clinical experience. Upon successfully completing this experience, you will be able to assist with specimen procurement, receive/distribute specimens and prepare specimens for analysis in a routine clinical laboratory.

**CLIN 292 Clinical Molecular Biology**
Credit Units: 2.0  Course Hours: 36.0
Prerequisite(s): APHY 282, BIOL 181, CHEM 184, CHEM 288, CLIN 291, ETHC 185, ETHC 280, HEMA 283, HEMA 188, HEMA 189, HSTC 187, MICR 189, PATH 181, QC 193, QC 194, TRFS 182 or SIMU 282

You will participate in a supervised clinical experience. Upon successfully completing this experience, you will be able to perform molecular diagnostic techniques to identify nucleic acid sequences.

**CLIN 293 Specimen Procurement and Management 2**
Credit Units: 7.0  Course Hours: 108.0
Prerequisite(s): CLIN 291

You will participate in a supervised clinical experience. Upon successfully completing this experience, you will be able to perform specimen procurement, receive/distribute specimens and prepare specimens for analysis in a routine clinical laboratory.

**CLIN 294 Clinical Chemistry 4**
Credit Units: 19.0  Course Hours: 288.0
Prerequisite(s): APHY 282, BIOL 181, CHEM 184, CHEM 288, CLIN 291, ETHC 185, ETHC 280, HEMA 283, HEMA 188, HEMA 189, HSTC 187, MICR 189, PATH 181, QC 193, QC 194, TRFS 182 or SIMU 282

You will participate in a supervised clinical experience. Upon successful completion, you will be able to perform analytical testing in a routine clinical chemistry laboratory.

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### Course Descriptions

**CLIN 295 Clinical Radiography 1**
- **Credit Units:** 43.0  
- **Course Hours:** 648.0  
- **Prerequisite(s):** SIMU 281

You will participate in a supervised clinical experience at an assigned clinical site. You will develop basic radiographic skills in patient positioning, image critique and patient care. You will be introduced to advanced radiographic procedures.

**CLIN 296 Clinical Radiography 2**
- **Credit Units:** 43.0  
- **Course Hours:** 648.0  
- **Prerequisite(s):** CLIN 295

You will participate in a supervised clinical experience at an assigned clinical site. You will maintain and build on competencies and skills acquired in CLIN 295 (Clinical Radiography 1). You will continue to develop radiographic skills in patient positioning, image critique and patient care. You will perform advanced radiographic procedures.

**CLIN 297 Clinical Radiography 3**
- **Credit Units:** 29.0  
- **Course Hours:** 432.0  
- **Prerequisite(s):** CLIN 296

You will participate in a supervised clinical experience at an assigned clinical site. You will maintain and build on skills developed in CLIN 296 (Clinical Radiography 2). You will continue to develop radiographic skills in patient positioning, image critique and patient care. You will perform general and advanced radiographic procedures with minimal supervision.

**CLIN 300 Consolidated Practice Education**
- **Credit Units:** 9.0  
- **Course Hours:** 280.0  
- **Prerequisite(s):** PSYN 208, PSYN 308, PSYN 300, PSYN 303, PSYN 304, STAT 202, (SOCI 100 or PSYC 101)

Equivalent Course(s): CLIN 300CE

You will demonstrate synthesis and application of theoretical concepts in a preceptored practice education setting of your choice. You will apply the psychiatric nursing skills of critical thinking, clinical reasoning, leadership, primary health care, and mental health promotion in advanced practice education settings such as education, research, leadership and management.

**CLTR 100 Diversity**
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** CLTR 100CE

You will examine the elements of cultural, gender and disability diversity in Canada and how it impacts legislation in the workplace. You will explore elements of Indigenous culture with a view to understanding both historical elements and contemporary issues in Canada. Your studies will also provide opportunities to participate in current Indigenous cultural practices.

**CLTR 119 Indigenous Cultural Awareness**
- **Credit Units:** 2.0  
- **Course Hours:** 30.0

You will gain an understanding of the diversity and richness of First Nations and Métis cultures, histories and current issues.

**CLTR 120 Diversity**
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** SOCI 170

You will examine the elements of cultural diversity in the workplace. You will examine perspectives of personal, historical and cultural backgrounds of yourself and others. You will also examine racism and issues of power.

**CLTR 148 Valuing Diversity**
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Prerequisite(s):** MHA 148  
- **Equivalent Course(s):** CDEP 167

You will be introduced to a philosophical approach that values diversity, blends multi-spiritual principles and emphasizes the strengths within community. You will examine what it means to be culturally competent when working with clients affected by mental health and substance use/abuse. You will also participate in culture awareness activities with special consideration to Indigenous peoples of Canada.

**CLTR 180 Culture and Diversity**
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** CLTR 180CE

You will be introduced to the many facets of culture. Your studies will focus on the personal attitudes and values involved in appreciating cultural differences. You will explore multiculturalism in Canadian society and discuss practices that promote acceptance of diversity in society.
CLTR 200 Culture and Diversity
Credit Units: 2.0  Course Hours: 30.0
Your studies will focus on the many dimensions of culture and approaches to promoting inclusion and innovation. You will explore culture in Canadian society as it pertains to Indigenous and immigrant populations. You will also examine the correlation between culture and diversity.

CLTR 260 Cultural Considerations
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): EDUC 260
Equivalent Course(s): CLTR 260CE
You will utilize cultural sensitivity as a guiding premise, as you study issues related to cultural diversity and how cultural beliefs, practices and traditions influence diabetes care and management. You will explore ways to ensure culturally sensitive care and education. You will also examine the benefits of culturally sensitive care.

CNET 100 Network+ Basics
Credit Units: 1.0  Course Hours: 15.0
You will learn the different network topologies, media types, protocols, network services, WAN technologies, security protocols and 802 standards. You will review different network implementation, support and troubleshooting tools. The course will help you prepare to write the CompTIA Network+ exam.

CNET 101 CISCO Network Associate 1
Credit Units: 6.0  Course Hours: 90.0
Equivalent Course(s): CNET 101CE, CNET 181
You will be introduced to the Cisco Networking Academy Program networking field. CNET 101 is the first of four courses that lead to the Cisco Certified Network Associate (CCNA) designation. You will learn to design and configure a network based upon the Open Systems Interconnection (OSI) framework.

CNET 102 CISCO Network Associate 2
Credit Units: 6.0  Course Hours: 90.0
Prerequisite(s): CNET 101*
Equivalent Course(s): CNET 102CE
You will focus on initial router configuration, routing table management, routing protocol configuration and variable-length subnet mask (VLSM). You will learn how to configure a router, manage routing tables and configure various routing protocols. CNET 102 is the second of four courses that lead to the Cisco Certified Network Associate (CCNA) designation.

CNET 103 CISCO Network Associate 3
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): CNET 102
Equivalent Course(s): CNET 103CE
You will focus on advanced IP addressing techniques (Variable Length Subnet Masking - VLSM), command-line interface configuration of switches, Ethernet switching, Virtual LANs (VLANs), Spanning Tree Protocol (STP) and VLAN Trunking Protocol (VTP). You will apply concepts from CNET 101 (Cisco Network Associate 1) and CNET 102 (Cisco Network Associate 2) to a network. You will be able to explain how a particular strategy is employed and the reasons for selecting a particular strategy. CNET 103 is the third of four courses that lead to the Cisco Certified Network Associate (CCNA) designation.

CNET 104 CISCO Network Associate 4
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): CNET 103*
Equivalent Course(s): CNET 104CE
You will focus on advanced IP addressing techniques including Network Address Translation (NAT), Challenge Handshake Authentication Protocol (CHAP), WAN technology and terminology, Point-To-Point Protocol (PPP), frame relay and network management. You will also receive experience in the application and configuration of Access Control Lists (ACLs) as a form of security. After completing CNET 104, you will prepare for Cisco Certified Network Associate (CCNA) designation exam.

CNET 106 A+ Cisco IT Essentials 1
Credit Units: 6.0  Course Hours: 90.0
Equivalent Course(s): CNET 106CE
Your studies will focus on identifying, installing and troubleshooting computer hardware and software components. You will become familiar with maintenance procedures. In a lab setting you will install, setup and troubleshoot printers and basic networks. Your studies will help prepare you to challenge the CompTIA A+ exam as well as one elective.

CNET 108 IP Telephony Call Manager Express
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): CNET 104*
You will be introduced to the packet switch voice communication networking field using Voice over Internet Protocol (VoIP). Your studies will help prepare you to write the CISCO Certified Voice Professional (CCVP) designation.
### CNET 111 Programming with Python
Credit Units: 5.0  Course Hours: 75.0
You will study the basics of programming with Python and general computer programming concepts and techniques. You will become familiar with the object oriented approach to programming. You will use the skills and knowledge that you develop in real-world programming tasks and situations. You will acquire theoretical knowledge and practical skills related to conditional execution, loops, Python programming language, syntax, semantics, and the runtime environment.

### CNET 140 Electronic Communications
Credit Units: 1.0  Course Hours: 18.0
Equivalent Course(s): CNET 140CE
You will access the Internet, search for files on the World Wide Web, use Internet services such as e-mail and download files. You will explore different options and set preferences within each of these applications.

### CNET 184 Data Communications and Networking 1
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s): CAD 191, CNET 180, CNET 184CE
In this course you will describe the major networking technologies and systems of modern networks, and be able to configure, manage and troubleshoot modern networks. This course presents content required in the objectives of the CompTIA Network+ certification exam.

### CNET 600 Enterprise Networking
Credit Units: 3.0  Course Hours: 45.0
You will learn about the design and support of enterprise network services. Your studies will include learning about different network configurations and how they are secured against various threat groups. You will also learn how to plan for, and monitor network performance and availability. You will gain hands on experience configuring a network operating system and developing security models.

### CNET 601 Routing and Switching
Credit Units: 3.0  Course Hours: 45.0
You will describe the roles of routers and switches in an enterprise network and analyze their operation. Your studies will include switching; Spanning Tree Protocol (STP); Virtual Local Area Networks (VLANs); routing protocols, Internet Address Protocols, IPv4 & IPv6; inter-VLAN routing; Dynamic Host Configuration Protocol (DHCP) and Network Address Translation (NAT). The course content is based on the Cisco Certified Network Associate (CCNA) Routing & Switching Essentials curriculum.

### CNST 122 Building Construction: Wood Frame Residential 1
Credit Units: 4.0  Course Hours: 60.0
Corequisite(s): CODE 100
You will learn the fundamentals of light wood frame construction designed using Part 9 of the National Building Code of Canada. You will analyze the structural requirements of bungalows and bi-levels. You will also learn how to draw construction details using architectural drafting conventions.

### CNST 126 Site Layout
Credit Units: 3.0  Course Hours: 45.0
You will learn how to calculate and establish construction elevations using builder’s levels. You will be able to describe the procedures for performing as well as establish building lines using hand tools. You will also learn how to transfer elevations using a laser level.

### CNST 127 Transits
Credit Units: 3.0  Course Hours: 45.0
You will lay out a building using a transit. You will learn how to set up the transit and read horizontal and Vernier scales. You will also determine, verify and layout angles in degrees horizontally and vertically using a transit.

### CNST 142 Introduction to Log Building
Credit Units: 8.0  Course Hours: 120.0
You will be introduced to the techniques used to construct log buildings (including the safe use of hand and power tools). You will also learn tree characteristics and log selection techniques.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNST 143</td>
<td>Scribe Fitting Log Walls</td>
<td>16.0</td>
<td>240.0</td>
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<td>You will learn all aspects of wall construction (from peeling green logs to forming weather-tight fits). Through extensive hands-on work, you will develop the skills required to construct log walls.</td>
</tr>
<tr>
<td>CNST 144</td>
<td>Log Floor Joists</td>
<td>2.0</td>
<td>30.0</td>
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<td>You will learn how to create log joists for main floors, second floors and balconies.</td>
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<tr>
<td>CNST 145</td>
<td>Roof Design Choices</td>
<td>6.0</td>
<td>90.0</td>
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<td>You will learn about the various roof design choices for log structures. You will construct a roof for a log structure using one or more of several roof design techniques. The roof designs used may vary between program offerings.</td>
</tr>
<tr>
<td>CNST 146</td>
<td>Log Settling and Checking</td>
<td>2.0</td>
<td>30.0</td>
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<td>You will learn how to allow for log shrinkage during the construction of log buildings so doors, windows, and non-settling parts operate properly.</td>
</tr>
<tr>
<td>CNST 147</td>
<td>Finishing and Framing</td>
<td>6.0</td>
<td>90.0</td>
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<td>You will learn how conventional wood framing and log walls meet and how electrical and plumbing features incorporate in log construction. You will also learn about windows and doors and other interior finishing details in log buildings.</td>
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<tr>
<td>CNST 220</td>
<td>Construction Techniques</td>
<td>3.0</td>
<td>45.0</td>
<td>CAD 100</td>
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<td>Your studies will focus on fundamental construction principles, tools and safety. You will use tools to measure, layout, cut, drill and bend as well as solder wires, terminals, printed circuit boards (PCBs) and surface mount devices. You will create a PCB starting with a schematic capture computer program. You will then produce a finished PCB using a computerized milling machine.</td>
</tr>
<tr>
<td>CNST 221</td>
<td>Building Construction: Residential Construction 2</td>
<td>4.0</td>
<td>60.0</td>
<td>CNST 122, CODE 100</td>
<td></td>
<td>You will expand your knowledge of light wood frame construction designed using Part 9 of the National Building Code of Canada. You will analyze the structural requirements of two-storey houses and develop the skills necessary to design and detail related construction assemblies.</td>
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<tr>
<td>CNST 222</td>
<td>Building Construction: Commercial Fundamentals</td>
<td>4.0</td>
<td>60.0</td>
<td>CNST 221</td>
<td>CODE 200</td>
<td>You will be introduced to materials and methods used in single-storey commercial construction. You will develop the skills necessary to design and detail basic commercial construction assemblies.</td>
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<tr>
<td>CNST 224</td>
<td>Building Construction: Commercial Buildings 2</td>
<td>4.0</td>
<td>60.0</td>
<td>CNST 232</td>
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<td>You will be introduced to materials and methods used in multi-storey commercial construction. You will develop the skills necessary to design and detail commercial construction assemblies to withstand the stresses of building movement.</td>
</tr>
<tr>
<td>CNST 232</td>
<td>Building Construction: Commercial Buildings 1</td>
<td>4.0</td>
<td>60.0</td>
<td>CNST 222, CODE 200</td>
<td>CNST 223</td>
<td>You will be introduced to materials and methods used in low-rise commercial construction. You will develop the skills necessary to design and detail commercial construction assemblies that integrate structural frames.</td>
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<tr>
<td>Course Description</td>
<td>Credit Units</td>
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<tr>
<td>CNST 233 Building Construction: Commercial Interiors</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td>Prerequisite(s):</td>
<td>CNST 222, CODE 200</td>
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<td>Your studies will focus on materials and construction methods used in commercial interior design. You will develop the skills necessary to design and detail interior construction assemblies. Architectural Woodwork Manufacturers Association of Canada (AWMAC) standards will be examined as part of your studies.</td>
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<tr>
<td>CNST 234 Building Construction: Furniture Construction</td>
<td>4.0</td>
<td>60.0</td>
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<td>Prerequisite(s):</td>
<td>CNST 233</td>
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<td>You will explore the complexities of the design-build process by creating a piece of furniture. You will design, document, construct, and present your furniture piece. Upon completion of this project, you will evaluate the implementation of the design intentions.</td>
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<tr>
<td>CNTR 104 Automation</td>
<td>6.0</td>
<td>85.0</td>
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<tr>
<td>Prerequisite(s):</td>
<td>ELTR 126</td>
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<tr>
<td>Your studies will focus on the methods and devices used to control and automate industrial operations. You will develop typical industrial applications for timers, programmable timers, programmable relays and programmable logic controllers. You will also study devices commonly used with programmable logic controllers, such as operator interfaces, proximity sensors and encoders.</td>
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<tr>
<td>CNTR 105 Process Control</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td>Prerequisite(s):</td>
<td>MAT 111, CNTR 200, CNTR 201</td>
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<td>You will be introduced to process control by studying open and closed loop control, discrete and analog control, transfer functions, system response and proportional, integral and derivative (PID) tuning methods. You will use process simulation software to develop PID tuning techniques and use these techniques to tune a controller in a process loop.</td>
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<tr>
<td>CNTR 106 Automation Systems</td>
<td>3.0</td>
<td>40.0</td>
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<tr>
<td>Prerequisite(s):</td>
<td>CNTR 104</td>
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<td>You will develop the knowledge and skills required to develop a programmable logic controller (PLC) based control system integrated with a software based human machine interface (HMI) like those typically used in industrial manufacturing or process environments. You will use a variety of common industrial control software applications and hardware that will enable you to develop, integrate and document industrial control applications.</td>
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<tr>
<td>CNTR 107 Protection and Control</td>
<td>4.0</td>
<td>60.0</td>
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<td>You will learn how to use electrical test equipment, interpret controls, evaluate devices including automatic starters and control circuits.</td>
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<tr>
<td>CNTR 200 Automation</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>Prerequisite(s):</td>
<td>ELTR 193, ELTR 194</td>
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<tr>
<td>Corequisite(s):</td>
<td>CIRC 104, CNTR 201</td>
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<tr>
<td>You will study the devices used to automate industrial operations by looking at the theory behind their operation. You will study timers, programmable timers, programmable relays and programmable logic controllers (PLCs), in the context of typical industrial applications. You will also study devices commonly used with programmable logic controllers, such as sensors and human machine interfaces (HMIs).</td>
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<tr>
<td>CNTR 201 Automation Lab</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td>Prerequisite(s):</td>
<td>ELTR 193, ELTR 194</td>
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<tr>
<td>Corequisite(s):</td>
<td>CNTR 200</td>
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<tr>
<td>You will study the devices used to automate industrial operations by constructing circuits, programming devices and observing their operation. You will construct circuits containing timers, programmable timers, programmable relays, programmable logic controllers (PLCs), sensors and human machine interfaces (HMIs).</td>
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</tbody>
</table>
Course Descriptions

CNTR 202 Automation Systems
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): CNTR 200, CNTR 201
You will combine devices studied in previous automation courses into a system. These devices include programmable logic controllers (PLCs), human machine interfaces (HMIs), and variable frequency drives (VFDs), as well as analog and discrete sensors and output devices. Additionally, supervisory control and data acquisition/human machine interface (SCADA/HMI) software will be integrated into a system.

CNTR 227 Logic Control Systems
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s): ENGE 224, INST 205, INST 220, INST 228
You will study the design and implementation of logic control systems using microprocessor-based programmable logic controllers (PLCs). The course content includes using graphical programming languages. You will configure, select and study the installation of PLCs. Practical lab applications will include programming timers, counters, math instructions and other advanced techniques.

CNTR 229 Advanced Controls
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): INST 205, MAT 247
Your studies will focus on feedback control systems, basic tools and yardsticks that a technologist uses to design and analyze control systems. You will learn how to mathematically model a process, select best applications of field devices and control hardware to fit the applications.

CNTR 230 Industrial Controls
Credit Units: 4.0    Course Hours: 64.0
Prerequisite(s): DGTL 221, ELTR 221
Corequisite(s): LABS 230
You will be introduced to the magnetic control of DC and AC motors including the functions, requirements and components of control systems. You will become familiar with developing and modifying motor starters, controllers and protection including auxiliary devices pertaining to pressure, flow, level and limit.

CNTR 231 Control Systems
Credit Units: 3.0    Course Hours: 48.0
Prerequisite(s): CNTR 230, DGTL 221, MAT 211
You will be introduced to control systems using Laplace transforms. Your studies will include a history of control systems, the use of mathematical models comparing mechanical systems with electrical systems. Your studies will focus on closed loop and opened loop feedback, system performance of second order systems, stability criteria, the natural frequency of oscillation and frequency response.

COAP 104 CCNA Cybersecurity Operations
Credit Units: 4.0    Course Hours: 60.0
You will become familiar with general Windows security concepts. You will identify the different methods of attack on the network, best methods of communication, infrastructure, cryptography and planning (hardware and software). You will learn how to use risk identification management as a preplanning tool for future growth and configuration. After completing COAP 104, you will receive a Cisco certificate of completion.

COAP 108 Civil Design
Credit Units: 3.0    Course Hours: 52.0
Prerequisite(s): DRFT 105
Corequisite(s): SRVY 222
Equivalent Course(s): COAP 176
You will become familiar with and use standard drafting practices and symbols to produce typical civil engineering drawings using Computer Aided Drafting (CAD) software. You will also use the basic concepts and applications of civil design software.

COAP 109 Computer Applications
Credit Units: 1.0    Course Hours: 18.0
You will learn how to apply computer skills to industry services and needs. You will gain experience in various hardware and software applications.

COAP 115 Word Processing
Credit Units: 6.0    Course Hours: 96.0
Equivalent Course(s): COAP 115CE
This course introduces fundamental file management and word processing concepts. Using a variety of word processing features, you will learn to format business correspondence, create, format, and edit tables and enhance documents with the addition of graphics.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COAP 116</td>
<td>Word Processing 2</td>
<td>6.0</td>
<td>96.0</td>
<td>COAP 115, CKEY 101</td>
<td>COAP 116CE</td>
</tr>
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<td>You will learn to enhance business documents with the addition of styles and the use of columns. You will use advanced features to enhance business documents and tables. You will also merge documents, create templates and forms, use desktop publishing features, and maintain a website.</td>
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<tr>
<td>COAP 171</td>
<td>Desktop Publishing</td>
<td>1.0</td>
<td>15.0</td>
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<td>COAP 171CE</td>
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<td>Your studies will introduce you to basic skills in the use of desktop publishing software for designing, editing and delivering different documents. You will learn the fundamentals of design for simple desktop publishing.</td>
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<tr>
<td>COAP 117</td>
<td>Spreadsheet Applications</td>
<td>4.0</td>
<td>64.0</td>
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<td>COAP 117CE</td>
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<td></td>
<td>You will learn how to design spreadsheets and apply numeracy skills to solve business problems. You will focus on formatting, applying formulas and functions, preparing charts, and utilizing data management techniques.</td>
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<tr>
<td>COAP 127</td>
<td>Computer Programming</td>
<td>3.0</td>
<td>45.0</td>
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<td>COAP 110, COAP 122</td>
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<td>You will be introduced to computer programming using the .NET framework. You will develop object–based, event-driven applications with a graphical user interface for the Windows environment. You will also create Autodesk add-ons.</td>
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<tr>
<td>COAP 136</td>
<td>Visual and Textual Programming</td>
<td>3.0</td>
<td>45.0</td>
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<td>COAP 138CE</td>
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<td>You will study and use visual and structured text programming languages to develop and document automated problem solutions related to instrumentation technology. You will implement the data types, logical structures, objects and components of the visual and textual languages appropriate to the nature of the industrial problem. Programming techniques and appropriate interface will be discussed in the presentations and problem exercises, and program documentation will be emphasized.</td>
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<tr>
<td>COAP 138</td>
<td>Computer Suite Applications</td>
<td>3.0</td>
<td>48.0</td>
<td>COAP 115</td>
<td>COAP 138CE</td>
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<td></td>
<td>In the course, you will learn to create documents that feature the integration of word processing, database, and presentation software.</td>
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<tr>
<td>COAP 172</td>
<td>Computer Applications</td>
<td>3.0</td>
<td>45.0</td>
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<td></td>
<td>You will receive an introduction to computer applications (such as a word processor, spreadsheet and database application). You will also gain knowledge of electronic spreadsheets in detail.</td>
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<tr>
<td>COAP 173</td>
<td>Data and Document Management</td>
<td>4.0</td>
<td>60.0</td>
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<td>COAP 173CE</td>
</tr>
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<td>You will be introduced to a document management system used to create, retrieve and process unstructured data in a quick and efficient manner. You will learn about the functionality and features of document management. You will be introduced to data management concepts using an industry standard electronic spreadsheet. Your studies will focus on the appropriate application of an electronic spreadsheet with a focus on information management.</td>
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<tr>
<td>COAP 174</td>
<td>Software Applications</td>
<td>1.0</td>
<td>15.0</td>
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<td>You will study introductory concepts concerning the creation of a software-development &quot;Project-Folder&quot; and the use of a terminal-emulation application (RS-232 based). You will become versed in a web mark-up language, such as HTML. Finally; you will practice your web mark-up language skills by repeatedly modifying an existing web-page for its eventual use in your PROJ-108 &quot;Final-Project: IP-Based Control Unit&quot;.</td>
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<tr>
<td>COAP 176</td>
<td>Civil Design</td>
<td>3.0</td>
<td>45.0</td>
<td>DRFT 107</td>
<td>COAP 108</td>
</tr>
<tr>
<td></td>
<td>You will become familiar with and use standard drafting practices and symbols to produce typical civil engineering drawings using Computer Aided Drafting (CAD) software. You will also use the basic concepts and applications of civil design software.</td>
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</table>
# Course Descriptions

## COAP 177 Computer Applications in Recreation
Credit Units: 3.0  Course Hours: 45.0
You will study computer fundamentals designed to increase computer literacy and expose you to a range of technologies used in organizations. Emphasis will be placed on using spreadsheets and using publishing software to create charts and newsletters.

## COAP 178 Computer Applications for Funeral Services
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): COAP 178CE
You will develop the basic skills for creating, editing, and formatting electronic documents that are required in the funeral services industry. You will also work with multimedia software to create and deliver a presentation such as a photo tribute.

## COAP 179 Outlook, Word and Desktop Publishing
Credit Units: 1.0  Course Hours: 15.0
Your studies will introduce you to basic skills in the use of Outlook; Email, Calendar, Contacts, and Tasks as well as Desktop Publishing using Publisher; design, edit and produce documents.

## COAP 194 Inventory Software
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s): COAP 194CE
You will become familiar with the programs used by Parts Department computer systems.

## COAP 201 Information Systems
Credit Units: 3.0  Course Hours: 45.0
Your studies will focus on the practical use of Word, Excel, Outlook and PowerPoint from the Microsoft Office Professional software suite. You will learn a wide range of skills from intermediate to advanced in each of the applications. You will learn a wide range of skills from intermediate to advanced in each of the applications.

## COAP 222 Computer Programming
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): COMP 112
You will study the design, implementation and testing of programs using a high-level language. You will develop problem-solving skills by constructing algorithms to meet program input and output (I/O) requirements. You will develop programs that exhibit good structure to ensure easy debugging and maintenance. You will utilize object oriented design techniques to produce efficient reusable modules. You will employ predefined and user constructed abstract data types to meet application design goals.

## COAP 232 Computer Programming
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): TCOM 102
Equivalent Course(s): COAP 222
You will explore the use of C++ language with an Object-Oriented Programming (OOP) approach to solve power system problems. Your studies will focus on the fundamentals of program writing using C++ language to analyze and implement programs related to electrical engineering technology.

## COAP 300 Artificial Intelligence
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): COAP 222, COAP 301*
You will study the concepts and principles of machine learning. You will learn about deep learning algorithms. You will learn about major applications of Artificial Intelligence in various fields.

## COAP 301 Artificial Intelligence Laboratory
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): COAP 222, COAP 300*
You will study the concepts and principles of machine learning. You will implement deep learning algorithms in Tensor Flow and interpret the results. You will learn about major applications of Artificial Intelligence in various fields.
COAP 480 Computer Applications Level 4
Credit Units: 4.0 Course Hours: 64.0
Equivalent Course(s): COAP 199
Theory and practical application will help you become familiar with computers at an introductory level. You will learn the purpose and uses of the graphical user interface (GUI) Windows, the word processor MS-Word, the spreadsheet MS-Excel, the database MS-Access, the presentation graphics program MS-PowerPoint and the Internet.

CODE 100 Building Code: Part 9 Applications 1
Credit Units: 2.0 Course Hours: 30.0
Corequisite(s): CNST 122
You will learn to interpret sections of Part 9 of the National Building Code of Canada (NBC) relating to single-family dwellings. You will discuss typical construction materials and methods.

CODE 101 Building Code: Part 9 Applications 2
Credit Units: 2.0 Course Hours: 30.0
Prerequisite(s): CODE 100
You will expand your ability to interpret sections of Part 9 of the National Building Code of Canada (NBC). You will gain proficiency in applying code concepts to all types of Part 9 buildings.

CODE 102 Legislation and Codes
Credit Units: 2.0 Course Hours: 30.0
You will study professionalism in the workplace as outlined in provincial regulations and codes. As well, you will apply various provincial regulations and codes to boilers and pressure vessels.

CODE 200 Building Code: Part 3 Applications 1
Credit Units: 3.0 Course Hours: 45.0
Prerequisite(s): CNST 221, CODE 101
You will evaluate buildings using Part 9 and Part 3 of the National Building Code of Canada (NBC). Your analysis of buildings will include classifications, fire restrictions and exit requirements.

CODE 201 Building Code: Part 3 Applications 2
Credit Units: 2.0 Course Hours: 30.0
Prerequisite(s): CNST 222, CODE 200
You will continue to assess buildings using Part 9 and Part 3 of the National Building Code of Canada (NBC). You will complete a code review for a Part 9 renovation. You will also interpret means of egress, fire and sound ratings, and universal design criteria in Part 3 buildings.

CODE 300 Building Code: Part 3 Applications 3
Credit Units: 2.0 Course Hours: 30.0
Prerequisite(s): CODE 201
You will assess specific construction scenarios by interpreting all relevant parts of the National Building Code of Canada (NBC). You will focus on establishing construction criteria for Part 3 buildings.

COET 295 Emerging Technologies
Credit Units: 3.0 Course Hours: 50.0
Prerequisite(s): COHS 280, COOS 293, COSC 292, COSC 295, CWEB 280
You will study the subject of new/emerging technologies, and you will examine how these technologies can change existing markets and development environments. You will gain experience in working with software and/or hardware that can be classified as part of the emerging technology paradigm.

COHS 190 Hardware
Credit Units: 4.0 Course Hours: 60.0
Equivalent Course(s): CNET 106, ELTR 287
You will be introduced to various computer hardware components. Your studies will cover the terminology associated with computer systems and peripherals. Additionally your studies will provide you with the opportunity to install components, connect peripherals, and configure computer systems. Your studies will include operational and safety procedures.

COHS 220 Networking Computers
Credit Units: 4.0 Course Hours: 60.0
You will be introduced to the role of a network administrator for a computer network. You will analyze network hardware, topologies, protocols, and services. You will install network cabling, operating systems, and applications software.
**Course Descriptions**

**COHS 280 Enterprise Systems Support**
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s):  COHS 190  
You will gain valuable expertise in assessing, documenting and responding to an assortment of help desk situations. You will acquire knowledge regarding computer deployment in an enterprise environment. You will also deploy antivirus software, monitor software license compliancy and perform network resource inventory in an enterprise environment.

**COM 101 Written and Oral Communications**
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s):  BCOM 120, COM 101CE, COMM 292  
You will receive instruction and practice in written and oral communication skills needed for the professional workplace. You will review the principles of effective writing, prepare oral presentations, and practice common forms of business communication. Communicating a professional image will be emphasized.

**COM 104 Teamwork and Collaboration**
Credit Units: 3.0  Course Hours: 45.0  
You will develop collaborative and teamwork skills and apply them to pharmacy technician practice, including effective research skills, professional documentation and a collaborative approach to decision-making in a health team.

**COM 106 Technical Report Writing**
Credit Units: 2.0  Course Hours: 30.0  
You will be introduced to scientific research and accessing and incorporating scientific literature. These elements are combined in a research project that will provide you with the opportunity to assemble, synthesize and report your research findings in a technical report format.

**COM 107 Industrial Communications**
Credit Units: 1.0  Course Hours: 16.0  
Equivalent Course(s):  COMM 127  
You will receive instruction in basic job related interpersonal, oral and written communication (including writing for the workplace and job search techniques).

**COM 108 Industrial Communications**
Credit Units: 1.0  Course Hours: 16.0  
You will receive instruction in basic job-related interpersonal, oral and written communication for apprentices in the workplace.

**COM 110 Client Service Skills**
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s):  COM 110CE  
You will develop specific skills for interacting with victim services clients and other agencies that provide services for victims in the community and the province.

**COM 111 Client Service Skills**
Credit Units: 2.0  Course Hours: 30.0  
You will focus on developing effective client service skills which will include demonstrating providing information to clients, working with clients from diverse cultures, and managing difficult clients.

**COM 113 Interpersonal Communications**
Credit Units: 3.0  Course Hours: 45.0  
You will acquire knowledge and practice in interpersonal communications, focusing on effective verbal and non-verbal communication, listening and responding skills, giving and receiving constructive feedback and problem solving. You will apply these techniques to the delivery of effective oral presentations. You will examine the demonstration of a professional image through your interpersonal, presentation and social media communications.

**COM 160 Communications for Graphic Arts**
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s):  COMM 127  
You will practice effective interpersonal, oral, and written communication skills. You will learn how to give and accept criticism, resolve conflicts, and handle customer complaints. You will also use critical thinking, teamwork, and problem solving skills. You will create job search documents including a resume and cover letter.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
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</thead>
<tbody>
<tr>
<td>COM 170</td>
<td>Professional Workplace Communication</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will focus on specific skills, behaviours, and attitudes needed to work productively with others. You will examine the role and effects of social media and digital communications in and outside the workplace. You will also practice conflict resolution skills as well as teamwork skills.</td>
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<td>COM 180</td>
<td>Technical Communications</td>
<td>5.0</td>
<td>76.0</td>
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<td>You will develop your oral, written, and interpersonal technical communication skills through practical exercises involving oral presentations, summary writing, business correspondence and technical reports. You will develop your speaking and writing abilities and demonstrate clarity, conciseness, completeness and language usage suitable for your profession. You will also learn how to organize and write a resume and prepare for an interview.</td>
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<tr>
<td>COM 200</td>
<td>Business Communications</td>
<td>3.0</td>
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<td>You will develop fundamental employability skills by studying the principles of communication. The course content includes developing effective writing skills. You will apply the principles and skills by writing letters and memorandums for routine and negative purposes. You will develop teamwork employability skills and examine ways to apply communication skills to team and cross-cultural situations.</td>
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<tr>
<td>COM 400</td>
<td>Building a Digital Communication Strategy</td>
<td>3.0</td>
<td>45.0</td>
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<td>Prerequisite(s):</td>
<td>BCOM 300</td>
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<td>You will examine your digital footprint and identify strategies to enhance your digital presence. You will consider issues of privacy, ethics, professionalism, and career advancement in constructing your digital footprint. You will also study the digital communication practices and identify strategies that organizations can implement to improve their communication with key stakeholders and achieve their strategic goals.</td>
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<tr>
<td>COM 106</td>
<td>Applied Communications</td>
<td>1.0</td>
<td>16.0</td>
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<tr>
<td>Equivalent Course(s):</td>
<td>COMM 127, COMM 189, JOBS 290, COMM 102</td>
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<td>You will create a job search strategy, research an employer and complete a mock job interview. You will prepare a professional cover letter and resume.</td>
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<tr>
<td>COM 107</td>
<td>Professionalism, Leadership and Communications</td>
<td>2.0</td>
<td>30.0</td>
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<td>Your studies will help you to develop qualities that are important for paramedic practice (professionalism, leadership, and communications). You will gain knowledge of legal and ethical aspects of paramedic practice, develop your communication skills (including conflict management) and learn the principles of critical thinking. You will also evaluate the importance of participation in continuing education and professional development.</td>
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<tr>
<td>COM 113</td>
<td>Applied Communications</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td>Prerequisite(s):</td>
<td>COMM 291</td>
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<td>Equivalent Course(s):</td>
<td>COMM 192</td>
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<td>You will apply oral, written and interpersonal skills needed for successful communication at the library, and specifically with clients. You will receive instruction and practice in effective writing. You will also use job search skills and produce job search documents.</td>
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<tr>
<td>COM 116</td>
<td>Communication Skills</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td>Equivalent Course(s):</td>
<td>COMM 341</td>
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<td>You will be introduced to the fundamentals of professional conduct, public relations, letter writing, interoffice communication, oral presentations and job search skills.</td>
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<tr>
<td>COM 119</td>
<td>Writing Skills</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td>Equivalent Course(s):</td>
<td>COMM 119CE, COMM 295</td>
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<td>You will practice a variety of written communication styles. You will receive information on basic grammar and the mechanics of writing. You will do research and create a research essay. Additionally you will develop a professional portfolio.</td>
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</tbody>
</table>
### COMM 127 Fundamental Communication Skills
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Equivalent Course(s):** COMM 127A, COMM 127CE, COMM 187, COMM 191, COMM 193, JOBS 190, PROF 100, TCOM 102, TCOM 105, TCOM 120, TCOM 140

You will use fundamental employability skills related to obtaining and keeping a job. You will apply skills to work effectively with others and produce job-related documents. You will identify employability and practical skills to prepare effective job search materials and discuss the effect of attitudes and behaviours on a successful job search.

### COMM 185 Industrial Communications
- **Credit Units:** 1.0  
- **Course Hours:** 16.0  
- **Equivalent Course(s):** COMM 127, COMM 186, COMM 187

You will develop employability skills in both oral and written communications, including writing for the workplace, preparing job search documents and developing effective interpersonal communication skills.

### COMM 191 Communications 1
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** BCOM 120, COMM 164, JOBS 190

You will receive instruction and practice in interpersonal and oral communications and business correspondence skills. You will also gain an understanding and appreciation of the organization and planning involved in the job search process. Developing the interpersonal, oral and written skills you will need in your job search will be emphasized.

### COMM 197 Helping Skills
- **Credit Units:** 1.0  
- **Course Hours:** 15.0  
- **Prerequisite(s):** COMM 291  
- **Equivalent Course(s):** COMM 160, COMM 197CE, COMM 293, HUMR 186, NEPS 112, NURS 163

You will apply communication skills to facilitate a helping relationship with your clients, their families, significant others, other health care staff, as well as various other professionals.

### COMM 202 Conflict Resolution Strategies
- **Credit Units:** 3.0  
- **Course Hours:** 40.0

You will develop assertiveness skills and apply them to situations requiring problem solving and conflict resolution.

### COMM 224 Presentation Skills
- **Credit Units:** 2.0  
- **Course Hours:** 30.0

You will learn the basics of effective presentation skills and have the opportunity to deliver a presentation.

### COMM 227 Interviewing
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Equivalent Course(s):** COMM 227CE

You will review and apply the skills necessary to conduct effective interviews in law enforcement settings.

### COMM 262 Workplace Communication
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Equivalent Course(s):** COMM 262CE

You will review effective writing skills and apply those skills to workplace documents: e-mails, memos, business letters, and reports. You will apply effective oral communication to individual presentations and meetings. You will examine interpersonal relationships in the workplace and demonstrate conflict resolution skills in individual and group settings.

### COMM 287 Communications
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** VETR 189

You will learn the basic skills of oral and interpersonal communication, emphasizing the role of the veterinary technologist. Positive interpersonal interactions, customer service and teamwork will be stressed. You will also learn about the job search process, which includes developing a resume and letter of application.

### COMM 289 Communications 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** COMM 191 or TCOM 102

You will study technical writing and oral presentation skills for the technologist. You will practice research methods, report writing, and oral presentation skills appropriate to the profession.
COMM 291 Interpersonal Communications
Credit Units: 2.0 Course Hours: 30.0
Equivalent Course(s): BCOM 103, COMM 112, COMM 135, COMM 155, COMM 160, COMM 291CE, COMM 381, HUMR 182, HUMR 186, JOBS 190, NEPS 114, NURS 114, NURS 163
You will develop employability skills through the study of interpersonal communications theory and applications in the workplace. Learning outcomes include the importance of self-awareness and self-esteem, perception problems, verbal and nonverbal messages, and listening skills, creating positive communication climates and resolving interpersonal conflict.

COMM 294 Teamwork Skills
Credit Units: 2.0 Course Hours: 30.0
Prerequisite(s): PRAC 181 or PRAC 105
Equivalent Course(s): COMM 246, COMM 294CE
You will learn how to become an effective member of an early childhood educator team. The course content focuses on determining individual interaction styles and personality styles, assertion skills, conflict management and group problem solving. You will practice communicating in an effective and professional manner.

COMM 295 Business and Technical Writing
Credit Units: 3.0 Course Hours: 45.0
Equivalent Course(s): BCOM 120, COMM 262
You will receive instruction and practice in written communication skills needed as a professional. You will review grammar and the mechanics of writing, study and practice research skills and technique, and produce examples of business and technical writing.

COMM 301 Managerial Communications
Credit Units: 3.0 Course Hours: 45.0
You will analyze organizational communications structures and practices. You will practice your writing skills by composing various types of correspondence, including email, social media, letters and reports. Your public speaking skills will be strengthened by conducting interviews, facilitating group discussions and delivering a formal presentation.

COMM 393 Communications 1
Credit Units: 3.0 Course Hours: 45.0
You will develop the oral and written skills needed to communicate effectively in a variety of situations. You will also demonstrate appropriate customer service skills and use job search skills.

COMP 102 Computer Foundations
Credit Units: 2.0 Course Hours: 30.0
You will develop the foundation required for working in a networked, computerized media production environment. You will become familiar with common computer specifications and environments. You will use productivity software to produce work-related documents. You will manage files efficiently.

COMP 105 Introduction to Computer Applications
Credit Units: 2.0 Course Hours: 30.0
Equivalent Course(s): COAP 172
Your studies will focus on an introduction to the basic hardware and software. You will learn about current hardware technologies, computer communications and basic security issues. You will be introduced to report writing, spreadsheet, database and presentation software as well as file and data management techniques.

COMP 106 Spreadsheets for Engineering Technology
Credit Units: 2.0 Course Hours: 25.0
Equivalent Course(s): COAP 172, COAP 197
You will gain an intermediate knowledge of electronic spreadsheets. You will determine when to use a spreadsheet and when to use a database.

COMP 107 Introduction to Computer Applications
Credit Units: 2.0 Course Hours: 30.0
Equivalent Course(s): COMP 105
You will be introduced to computer hardware components as well as operating and system software. You will become proficient in using application software such as word processing and spreadsheets. Your studies will help you develop file management techniques and email etiquette.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 108</td>
<td>Introduction to Digital Communication</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td>You will receive instruction and practice in correct ergonomic and touch typing techniques to enhance your ability to communicate in a digital format. You will also use Microsoft Outlook and Lotus Notes to create emails and use features such as calendar, contacts and tasks.</td>
</tr>
<tr>
<td>COMP 109</td>
<td>SCADA Systems</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td>You will be introduced to Supervisory Control and Data Acquisition (SCADA) Systems. Your studies will include communication protocols, standards, Human Machine Interface (HMI) best practices and the creation of a SCADA application.</td>
</tr>
<tr>
<td>COMP 110</td>
<td>Control Systems</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>Your studies will include bus configurations, protection and control schemes as well as monitoring. You will also explore fault assessment and management.</td>
</tr>
<tr>
<td>COMP 111</td>
<td>'C' Programming for Embedded Microcontrollers</td>
<td>4.0</td>
<td>60.0</td>
<td>DGTL 106, DGTL 107</td>
<td>You will be introduced to the fundamentals of the 'C' programming language. You will write a structured program in 'C'. You will then develop programs in 'C' with an emphasis on embedded microcontroller applications.</td>
</tr>
<tr>
<td>COMP 112</td>
<td>Introduction to Computer Programming</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>You will develop programs using a general-purpose programming language. You will learn the essentials of game development. You will develop problem-solving skills by constructing algorithms to meet program input and output requirements. You will develop programs that exhibit good structure to ensure easy debugging and maintenance.</td>
</tr>
<tr>
<td>COMP 120</td>
<td>Information Systems</td>
<td>4.0</td>
<td>64.0</td>
<td></td>
<td>Your studies will focus on the practical use of Outlook, Word, PowerPoint, and Excel from the Microsoft Office Professional software suite. You will learn a wide range of skills from intermediate to advanced in each of the applications.</td>
</tr>
<tr>
<td>COMP 122</td>
<td>Introduction to Programming for Information Systems</td>
<td>6.0</td>
<td>96.0</td>
<td></td>
<td>You will learn introductory programming and design concepts using the Java language. Your studies will develop your logic and problem solving skills using elements of the Unified Modeling Language (UML) to develop structured and object oriented Java programs.</td>
</tr>
<tr>
<td>COMP 123</td>
<td>Introduction to Business Computing</td>
<td>4.0</td>
<td>64.0</td>
<td></td>
<td>You will learn how to use computers to analyze business data and collaborate on documents and projects. You will gain hands on experience with advanced features of the Windows Operating System and the Microsoft Office suite of tools including file systems and directories, spreadsheets, databases, and SharePoint site management. You will also study best practices for collaborative document production, document management, and source control using Git and GitHub.</td>
</tr>
<tr>
<td>COMP 170</td>
<td>Basic Computer Operation</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td>You will be introduced to the basics of computer concepts. Topics you will study include computer components, hardware and software, working in a graphical user interface, file management, word processing and the Internet. The general skills you learn in this course will prepare you for further courses such as word processing, spreadsheets and presentation graphics.</td>
</tr>
<tr>
<td>COMP 171</td>
<td>Introduction to Microsoft Word</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td>You will be introduced to basic word processing skills such as creating, editing and formatting documents, building tables, using templates and applying styles.</td>
</tr>
</tbody>
</table>
## Course Descriptions

### COMP 172 Introduction to Microsoft Word and Excel
- **Credit Units:** 1.0  
- **Course Hours:** 15.0
- **Equivalent:** COAP 120, COAP 172, COAP 381, COMP 120, COMP 172CE

You will learn the purpose and uses of a word processor and electronic spreadsheet. You will develop the basic skills of creating, editing and formatting documents and spreadsheets.

### COMP 173 Introduction to Microsoft PowerPoint and Web Publishing
- **Credit Units:** 1.0  
- **Course Hours:** 15.0
- **Equivalent:** COAP 138, COMP 120, COMP 173
- **Course(s):** COMP 173CE

Your studies will introduce you to basic skills in the use of PowerPoint software for designing, editing and delivering presentations. You will learn the fundamentals of web publishing for simple web page development.

### COMP 174 Introduction to Microsoft Excel 1
- **Credit Units:** 1.0  
- **Course Hours:** 15.0
- **Equivalent:** COAP 117, COAP 138, COAP 197, COAP 344, COMP 120, COMP 174CE

You will study the basic features of Excel. You will learn to create workbooks, format spreadsheet elements, manipulate multiple worksheets, create simple charts and use simple formulas and functions.

### COMP 175 Introduction to Microsoft Excel 2
- **Credit Units:** 1.0  
- **Course Hours:** 15.0
- **Prerequisite(s):** COMP 172 or COMP 174
- **Equivalent Course(s):** COAP 344, COMP 175CE, COMP 284

You will study the intermediate features of Excel. Using the skills and knowledge you acquired in COMP 174 (Introduction to Excel 1), you will learn to use more advanced spreadsheet functions, create and modify several chart types, and perform data manipulation.

### COMP 176 Introduction to Microsoft Access 1
- **Credit Units:** 1.0  
- **Course Hours:** 15.0
- **Equivalent:** CDBM 190, COAP 138, COAP 197, COAP 345, COMP 120, COMP 176CE, COMP 284

Your studies will focus on the basic features of Microsoft Access. You will create simple tables, queries, forms and reports. You will also modify database elements such as fields and records.

### COMP 179 Introduction to PowerPoint
- **Credit Units:** 1.0  
- **Course Hours:** 15.0
- **Equivalent:** COAP 138, COMP 120, COMP 173, COMP 179CE

You will receive instruction and practice in creating, modifying and delivering a presentation using Microsoft PowerPoint. You will enhance the presentation by adding charts, tables, visual elements, multimedia, transition effects and animations. You will study how to present, distribute and customize presentations.

### COMP 192 Computer Fundamentals 1
- **Credit Units:** 3.0  
- **Course Hours:** 48.0

You will learn basic skills in managing files on a computer and in using word processing, spreadsheet, and presentation software packages.

### COMP 200 Operating Systems
- **Credit Units:** 4.0  
- **Course Hours:** 53.0
- **Equivalent Course(s):** COMP 200CE, COOS 280

The course content will provide you with the skills needed to understand and perform basic administrative and configuration tasks on common operating systems. You will develop skills regarding file systems, user and group rights, file system permission and common maintenance tasks. Your studies will include Linux.

### COMP 201 Introduction to Database Design
- **Credit Units:** 2.0  
- **Course Hours:** 30.0
- **Prerequisite(s):** COMP 176*
- **Equivalent Course(s):** COMP 201CE

You will develop an appreciation for good database design. You will learn the theory required to design a database, which include the types of data, relationships within the data, table structures and the creation of business rules.

### COMP 202 Structured Query Language SQL
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
- **Prerequisite(s):** COMP 201*
- **Equivalent Course(s):** CDBM 190, COMP 202CE

You will learn Structured Query Language (SQL). Your studies will include course content on retrieving and modifying data stored on database servers, and concepts related to relationships and proper table design principles.
# Course Descriptions

## COMP 204 Server Side Scripting 1
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): COMP 202*  
Equivalent Course(s): COMP 204CE, COSC 285  
You will develop the skills needed to create server side scripting applications using Hypertext Preprocessor (PHP). Your studies will include scripting fundamentals, stateless session management and database connectivity.

## COMP 205 Server Side Scripting 2
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): COMP 204*  
Equivalent Course(s): COMP 205CE  
You will develop advanced skills in server side scripting using Hypertext Preprocessor (PHP). Your studies will include integrating server side scripting into Graphical User Interface (GUI) based HTML authoring environments, handling errors and using debugging techniques. You will also develop introductory skills in Object Oriented programming (OOP).

## COMP 206 E-Commerce
Credit Units: 3.0  Course Hours: 46.0  
Prerequisite(s): COMP 205  
Equivalent Course(s): COMP 206CE  
Your studies will include defining e-commerce, defining interface design issues and researching and evaluating e-commerce solutions. You will plan and develop an e-commerce project.

## COMP 207 Computer Interfacing
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): COMP 221, COMP 222, COMP 217*  
You will design, develop and debug software for embedded microcontrollers. You will choose and implement appropriate strategies for interfacing microcontroller based systems to various peripherals (including memory, keypads, displays, analog-to-digital (A/D) and digital-to-analog (D/A) converters, switches and different types of transducers).

## COMP 208 Network Programming
Credit Units: 6.0  Course Hours: 96.0  
Prerequisite(s): COAP 222  
You will apply current technologies to produce dynamic web pages and internet applications. You will install, configure and maintain a web server and database. You will use these components to produce dynamic web applications.

## COMP 209 Software Systems
Credit Units: 5.0  Course Hours: 80.0  
Prerequisite(s): COAP 222  
You will analyze characteristics, issues and solutions pertaining to the design and implementation of operating systems. You will master various aspects of computer system administration and write software scripts.

## COMP 211 Introduction to Computer Programming
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): COMP 105  
Your studies will focus on an introduction to computer programming theory and development. You will learn how to design and build computer software using industry standard languages and development environments. You will be introduced to Object Oriented Programming (OOP) concepts and develop graphical user interface software that performs relevant engineering technology tasks.

## COMP 212 Geomatics Programming 1
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): COMP 211  
Building on your previous skills, you will practice object oriented programming (OOP). You will learn the benefits of using structure and class objects. You will begin to focus on creating software to solve geomatics specific problems. You will learn how to customize existing software by creating native tools that solve geomatics specific tasks beyond the built in functionality and tools of the software. You will learn how to customize a programmable calculator to have it solve geomatics specific tasks.

## COMP 213 Geomatics Programming 2
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): COMP 212  
Building on your computer programming skills, you will study how graphics, animations and external device communications can be incorporated into software. You will investigate current communication technologies found on geomatics equipment and identify their uses and limitations. You will complete a geomatics software development project that includes design, implementation, testing and demonstration of the software.
## Course Descriptions

### COMP 214 Project Management
Credit Units: 4.0  Course Hours: 64.0
You will develop essential project management skills that will place you in a position to make an immediate and valuable contribution to the success of real world projects. You will study industry standards and methodologies to develop an appreciation of the resources available to project managers. You will learn tools and techniques which are useful to the project process groups and knowledge areas. You will study the theory that supports project management and how apply it to real-world examples.

### COMP 215 Internet Application Development 1
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s): COMP 122
You will learn the fundamentals of Web design and application development. You will learn to create Web content that communicates effectively and is easy to maintain. Your studies will include learning HTML5, JavaScript, JQuery, AJAX and JavaScript sockets.

### COMP 216 AJAX
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): COMP 205*
Equivalent Course(s): COMP 216CE
You will learn the principles of AJAX (Asynchronous JavaScript and XML). You will create AJAX enabled web pages to simplify and enhance a variety of web experiences.

### COMP 217 Computer Interfacing Laboratory
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): COMP 221, COMP 222, COMP 207*
You will design, construct and debug a project based on embedded microcontrollers. Your project will involve interfacing to analog and digital peripherals, keypads, displays, and actuators.

### COMP 221 Computer Hardware Fundamentals
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): DGTL 110, DGTL 111, COMP 222*
You will study specific integrated circuits (IC) that make up the personal computer. You will analyze characteristics and addressing techniques for various types of memory, as well as basic computer structure and operation. You will design the logic circuits for memory addressing and input/output (I/O) port decoding. You will examine and interpret the basic central processing unit (CPU) internal control unit, I/O interfacing, and secondary storage systems.

### COMP 222 Microcontroller Programming
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): COMP 112, DGTL 110, DGTL 111
You will be introduced to embedded microprocessor applications and architecture. You will be introduced to Assembly and C programming languages. You will construct structured C programs for embedded microcontroller projects.

### COMP 227 Process Control Systems
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): INST 229, DGTL 110, DGTL 111
You will study methods and devices to control and automate industrial operations. You will differentiate final control operations and discrete-state control. You will design logic control circuits using Programmable Logic Controllers (PLC). You will also be introduced to supervisory control and data acquisition (SCADA) concepts.

### COMP 233 Object Oriented Programming Concepts
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s): COMP 122
You will learn advanced topics in Java programming and Object Oriented programming techniques. Your studies will include file manipulation, exception handling, graphical user interfaces, event handling, multi-threaded environments, and network programming. You will continue to study systems development, algorithm design and the Unified Modelling Language (UML). After completing this course, you will have developed a thorough understanding of Java's capabilities and strengths.
COMP 234 Database
Credit Units: 5.0 Course Hours: 80.0
Prerequisite(s): COMP 123
You will gain experience designing computer systems that involve database processing. You will focus on the hierarchical, relational, and network design. You will also gain experience in database processing using ORACLE and Query Languages (in particular SQL and SQL*PLUS).

COMP 235 Internet Application Development 2
Credit Units: 6.0 Course Hours: 96.0
Prerequisite(s): COMP 215, COMP 234
Your studies will provide hands-on experience developing .NET applications. The course content includes Web application topics such as the .NET AJAX framework, ASP.NET, distributed computing topics such as Windows Communication Foundation and Web Services, and the ADO.NET libraries for data access. You will complete course projects using Visual Studio .NET, ASP.NET, ADO.NET, and C#.

COMP 236 Operating Systems and Environment Configuration
Credit Units: 5.0 Course Hours: 80.0
Prerequisite(s): COMP 254
You will learn the fundamentals of developing software applications with open source tools and technologies. Your studies will provide you with a broad view of application development and deployment environments, including the hardware, operating systems, and servers required to develop and deploy software applications.

COMP 237 Systems Analysis and Requirements Management
Credit Units: 4.0 Course Hours: 64.0
Prerequisite(s): COMP 234
You will learn a variety of different methods, tools, and techniques that a systems analyst would use in the development of complex business information systems. You will use CASE tools to develop practical experience in planning analysis and design of business information systems. You will gather requirements, perform the analysis and begin design if a small-automated system belonging to a real world/business/organization to gain direct experience of systems analysis.

COMP 238 Data Communications and Networks
Credit Units: 4.0 Course Hours: 60.0
Prerequisite(s): CIRC 222, ENGE 224, INST 228
Corequisite(s): CNTR 227, INST 236
You will design, analyze, install and evaluate digital data communication systems. The course content includes digital communication concepts, industrial networks, local area networks, and wide area networks including fiber optics. The laboratory components will provide practical experience.

COMP 239 Information Security, Privacy and Ethics
Credit Units: 3.0 Course Hours: 48.0
You will learn how to plan and manage security and privacy policies. You will study the role of CIPS in providing ethical guidelines for professional conduct, and you will learn about the responsibilities of working with management information systems and their data. You will also discuss the ergonomics and health risks associated with computer based-work. Your studies will include the components of an information system security model and the threat groups that compromise them. In addition, you will be exposed to examples of security technology and how to implement it as part of a security plan.

COMP 246 SCADA Systems
Credit Units: 3.0 Course Hours: 48.0
Prerequisite(s): DGTL 221
You will be introduced to Supervisory Control and Data Acquisition (SCADA) Systems. Your studies will include communication protocols, network systems, contrast of remote terminal units and Programmable Logic Controllers (PLC). You will develop analysis and design techniques to create an active SCADA system.

COMP 248 Database Systems
Credit Units: 4.0 Course Hours: 64.0
Prerequisite(s): COMP 234
You will gain experience designing computer systems that involve database processing. You will focus on the hierarchical, relational, and network design. You will also gain experience in database processing using ORACLE and Query Languages (in particular SQL and SQL*PLUS).

COMP 249 Information Security, Privacy and Ethics
Credit Units: 3.0 Course Hours: 48.0
You will learn how to plan and manage security and privacy policies. You will study the role of CIPS in providing ethical guidelines for professional conduct, and you will learn about the responsibilities of working with management information systems and their data. You will also discuss the ergonomics and health risks associated with computer based-work. Your studies will include the components of an information system security model and the threat groups that compromise them. In addition, you will be exposed to examples of security technology and how to implement it as part of a security plan.

COMP 250 Operating Systems and Environment Configuration
Credit Units: 5.0 Course Hours: 80.0
Prerequisite(s): COMP 254
You will learn the fundamentals of developing software applications with open source tools and technologies. Your studies will provide you with a broad view of application development and deployment environments, including the hardware, operating systems, and servers required to develop and deploy software applications.

COMP 251 Systems Analysis and Requirements Management
Credit Units: 4.0 Course Hours: 64.0
Prerequisite(s): COMP 234
You will learn a variety of different methods, tools, and techniques that a systems analyst would use in the development of complex business information systems. You will use CASE tools to develop practical experience in planning analysis and design of business information systems. You will gather requirements, perform the analysis and begin design if a small-automated system belonging to a real world/business/organization to gain direct experience of systems analysis.

COMP 253 Systems Project
Credit Units: 6.0 Course Hours: 96.0
Prerequisite(s): COMP 214, COMP 237
You will demonstrate your skill in systems development using real projects or contrived cases that require applying the activities of the system development cycle in an interactive data base environment. The case projects are set in a team environment with the supervising faculty member serving as your consultant and evaluator.

Register online at saskpolytech.ca or call 1-866-467-4278
Sask Polytech Calendar 2019-2020
Course Descriptions

COMP 254 Computer Architecture and Data Communications
Credit Units: 6.0    Course Hours: 96.0
Prerequisite(s): COMP 123
You will be exposed to a wide variety of topics related to computer systems and networking. As you install and configure these system components, you will learn about computer hardware, workstation and server operating systems, and computer networking and data communications. Your studies will focus on the architecture of the Intel-based computer hardware and the Microsoft workstation and server operating system platforms.

COMP 255 Visual Application Development
Credit Units: 5.0    Course Hours: 80.0
You will study the Windows based application development environment. You will develop applications using graphical user interfaces and incorporate Object-Oriented Event-Driven (OOED) programming. The course content includes standard OOED programming concepts, graphics, database access, inter-application communications and data structures.

COMP 258 Object Oriented Software Development
Credit Units: 5.0    Course Hours: 80.0
Prerequisite(s): COMP 233
You will study the fundamentals of object oriented software design, UML and data structures. You will study the creation and selection of common collections and their related algorithms. You will apply these concepts in project development involving multi-user, networked application for data access.

COMP 259 Mobile Application Development 1
Credit Units: 4.0    Course Hours: 64.0
Prerequisite(s): COMP 233
Using the Android-based application development environment, you will extend web applications to a native mobile platform. You will write mobile applications that incorporate local data storage, implement handset hardware features such as GPS and connect to the network. You will compare native application development to cross platform development for multiple devices.

COMP 262 Mobile Application Development 2
Credit Units: 4.0    Course Hours: 64.0
Prerequisite(s): COMP 259
Building on the foundation of COMP 259, you will implement more advanced Android and cross platform development techniques. You will write applications that use dynamic user interface elements, incorporate remote data storage, and communicate with web services. Using cross platform development tools, you will create a mobile application that runs on various devices and will work with a multi-tiered business application.

COMP 280 Computer Fundamentals 2
Credit Units: 5.0    Course Hours: 72.0
Prerequisite(s): COMP 192
Building on the skills you developed in Computer Fundamentals I (COMP 192), you will be provided with the basics of database software. One advanced topic in AutoCAD, spreadsheets or database use will also be selected.

COMP 301 Software Systems
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): COAP 222, COMP 302*
You will analyze characteristics, issues and solutions pertaining to the design and implementation of operating systems. You will master various aspects of computer system administration.

COMP 302 Software Systems Laboratory
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): COAP 222, COMP 301*
You will analyze characteristics, issues and solutions pertaining to the design and implementation of operating systems. You will master various aspects of computer system administration and write software scripts.

COMP 600 Software Architecture and Programming
Credit Units: 3.0    Course Hours: 45.0
You will review fundamental programming concepts and apply them to an enterprise technology stack. You will learn how to design and deploy loosely coupled components to create software solutions. Your studies will include presentation layer technologies, business logic, service layer components, and data access. You will study best practices for secure development and research and compare technology options for building software solution architectures.

Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020
## Course Descriptions

### COMP 601 Business Software Applications
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** MGMT 128

Your studies will focus on the practical use of Microsoft Word, Excel, Outlook, and PowerPoint. You will learn a wide range of skills from intermediate to advanced in each of the applications.

### COMP 602 Information Systems
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** MGMT 605, ADMN 601

You will study the basic concepts of an information system and its application to the supply chain industry. You will learn about information systems, security, ethics, information technology, data resource management, trends in digital communications, and enterprise resource systems used in the supply chain industry.

### CONC 102 Concrete Technology 1
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** CONC 120

You will be introduced to the practical and theoretical aspects of concrete technology. You will perform current Canadian Standards Association (CSA) test procedures on plastic and hardened concrete as well as fine and coarse aggregates.

### CONC 103 Concrete Technology 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** CONC 102  
- **Equivalent Course(s):** CONC 220

You will study concrete aggregates, Portland cement, supplemental cementing materials and admixtures. You will analyze these materials through mix designs, batching and mixing. In a lab setting, you will test plastic and hardened concretes as well as finish and cure concrete mixes. You will then evaluate the test results collected and apply those results to the given design criteria.

### CONC 120 Concrete Technology
- **Credit Units:** 3.0  
- **Course Hours:** 52.0  
- **Equivalent Course(s):** CONC 102

You will be introduced to the practical and theoretical aspects of concrete technology. Building on the skills developed in the classroom and lab, you will perform current CSA test procedures on plastic and hardened concrete, and fine and coarse aggregates.

### CONC 122 Concrete
- **Credit Units:** 2.0  
- **Course Hours:** 30.0

You will learn the skills required to test, place, consolidate, finish, and cure concrete. Concrete maintenance and repair will also be covered.

### CONC 151 Concrete
- **Credit Units:** 1.0  
- **Course Hours:** 21.0

You will develop the skills needed to test, place, consolidate, finish and cure concrete. The course content includes selecting and proportioning ingredients for producing quality concrete.

### CONC 220 Concrete Technology
- **Credit Units:** 4.0  
- **Course Hours:** 64.0  
- **Prerequisite(s):** CONC 120

You will learn about concrete aggregates, Portland cement, supplemental cementing materials and admixtures. You will analyze these materials through mix designs, batching and mixing of these concrete materials; as well, you will test plastic and hardened concretes. You will finish and cure concrete mixes. You will then evaluate the test results collected and apply those findings to the given design criteria.

### COOK 197 Short Order Cooking
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** FOOD 170*

Equivalent Course(s): FOOD 102

You will learn how to prepare and produce a short order menu using the basic cooking principles of grilling, deep fat frying, sautéing and pan frying. You will practice the process of cooking meals to order in a restaurant setting.

### COOP 100 Cooperative Work Term
- **Credit Units:** 0.0  
- **Course Hours:** 0.0

Your co-operative education work term will provide you with the opportunity to consolidate theoretical and practical concepts learned in the classroom and gain valuable experience in a work setting.

### COOP 101 Co-operative Work Term
- **Credit Units:** 0.0  
- **Course Hours:** 0.0

Your co-operative education term will provide you with the opportunity to consolidate theoretical and practical concepts learned in the classroom and gain valuable experience in a work setting.
## Course Descriptions

### COOP 150 Co-operative Education Work Term
Credit Units: 0.0  Course Hours: 0.0  
Prerequisite(s):  JOBR 120  
Your co-operative education work term will provide an opportunity for you to integrate the formal knowledge and skills learned in the classroom with experiential learning from the workplace. You will have the opportunity to apply theoretical concepts to real work situations, work collaboratively in team work situations, experience the complexity of the roles and responsibilities within an organization, and apply personal employment skills.

### COOP 200 Cooperative Work Term
Credit Units: 0.0  Course Hours: 0.0  
Your second co-operative education work term will build on the experience gained during your first work placement and provide you with additional opportunities to develop skills and techniques related to your field of studies in a real work setting.

### COOP 201 Co-operative Work Term
Credit Units: 0.0  Course Hours: 0.0  
Your second co-operative education term will build on the experience gained during your first work placement and provide you with additional opportunities to develop skills and techniques related to your field of studies in a real work setting.

### COOP 300 Cooperative Work Term
Credit Units: 0.0  Course Hours: 0.0  
Your third co-operative education work term will round out the work term experience by adding related work knowledge through the application of theories and practices relevant to your field of studies.

### COOP 301 Co-operative Work Term
Credit Units: 0.0  Course Hours: 0.0  
Your third co-operative education work term will round out the work term experience by adding related work knowledge through the application of theories and practices relevant to your field of studies.

### COOS 101 LINUX+
Credit Units: 4.0  Course Hours: 60.0  
Your studies will focus on describing, installing, configuring and administering Linux operating system workstations and servers. You will use troubleshooting practices to diagnose hardware and software problems and maintain the Linux network system. The course will help you prepare to write the CompTIA Linux+ exam.

### COOS 181 Operating Systems
Credit Units: 4.0  Course Hours: 60.0  
Equivalent Course(s):  COOS 180, COOS 181CE  
You will be provided with the knowledge and skills required to install and configure desktop computers and other devices in a Windows business environment. You will use curriculum and labs for Microsoft 70-698 Installing and Configuring Windows 10 course.

### COOS 190 Systems Administration 1
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s):  COOS 181  
In this course you will install and configure Microsoft Server 2016 for use as a network operating system. You will use the Microsoft Official Academic Course(MOAC) curriculum and training materials. On the completion of this course, you will have covered the learning objectives required in the Microsoft 70-740 certification exam. The Computer Systems Technology program does not provide exams for Microsoft certification.

### COOS 291 Advanced Operating Systems
Credit Units: 5.0  Course Hours: 75.0  
Prerequisite(s):  COOS 181  
Equivalent Course(s):  COOS 280  
You will learn to work with both the command line and graphical interfaces of the Linux operating system. In addition you will learn about the file system, shell programming, system and network administration. Special emphasis will be placed on learning about Linux networks and telecommunications studies.
**Course Descriptions**

**COOS 293 Systems Administration 2**
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): COOS 190 or CNET 190  
You will study advanced network administration skills by managing network servers and services. You will study how to oversee a complex network environment and learn how to configure numerous network services with a variety of administrative tools. You will use Microsoft Official Academic Course (MOAC) curriculum and training materials. On completion of this course, you will have covered the learning objectives required in the Microsoft 70-411 certification exam. The Computer Systems Technology program does not provide exams for Microsoft certification.

**COOS 294 Enterprise Server Administration**
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): COOS 190 or CNET 190  
You will study administration skills for specialized enterprise level servers. You will then learn how to perform ongoing configuration and management of the servers.

**COOS 295 Systems Administration 3**
Credit Units: 3.0  Course Hours: 50.0  
Prerequisite(s): COOS 293 or CNET 293  
Equivalent Course(s): CNET 295  
You will study the advanced configuration of services necessary to deploy, manage and maintain a Windows Server infrastructure in an enterprise. You will learn such skills as fault tolerance, certificate services, advanced file services, advanced access control, and identity federation. You will use Microsoft Official Academic Course (MOAC) curriculum and training materials. After completing the course, you will be prepared to write the Microsoft 70-412 certification exam. The Computer Systems Technology program does not provide exams for Microsoft certification.

**CORR 100 Control Tactics**
Credit Units: 4.0  Course Hours: 60.0  
You will demonstrate appropriate control tactics and force options in compliance with the Use of Force Model.

**CORR 134 Abnormal Behaviour**
Credit Units: 4.0  Course Hours: 60.0  
You will compare general information on abnormal behavior to the theories on the causes of abnormal behavior and explore current treatment options.

**CORR 159 Extrajudicial Programs**
Credit Units: 1.0  Course Hours: 20.0  
You will examine the various community agencies and alternative measures programs that are part of the court system.

**CORR 167 Criminal Justice System**
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s): CORR 167CE  
You will examine the components of the criminal justice system. You will examine how the components work together to respond to crime and crime control.

**CORR 175 Introduction to Corrections**
Credit Units: 3.0  Course Hours: 40.0  
You will be introduced to the organizational structures of federal and provincial correctional systems. You will study the historical development of prisons in Canada. In this course you will also have an opportunity to tour federal and provincial correctional institutions.

**CORR 176 Youth Justice**
Credit Units: 2.0  Course Hours: 30.0  
You will review young offender legislation and examine Saskatchewan’s model for managing young offenders. You will discuss trends in approaches to youth justice and also examine specific programs delivered in Saskatchewan.

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### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
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</thead>
<tbody>
<tr>
<td>CORR 177</td>
<td>Women in Corrections</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will explore the historical roots of incarcerated women in Canada. Your studies will include studying gender issues in correctional programming, institutional initiatives for female offenders, and gender issues for female correctional staff.</td>
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<tr>
<td>CORR 179</td>
<td>Offender Supervision</td>
<td>2.0</td>
<td>28.0</td>
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<td></td>
<td>You will gain an understanding of offender typologies and develop specific skills for supervising inmates. You will learn institutional policies relating to offender management and apply supervisory skills in a variety of situations.</td>
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<tr>
<td>CORR 183</td>
<td>Correctional Reporting Procedures</td>
<td>3.0</td>
<td>45.0</td>
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<td>You will develop observational skills which support the objectives of the offender disciplinary process. Based on these acquired skills, you will write reports common to federal and provincial corrections. You will also link information in institutional reports to the delivery of testimony in both institutional and open court systems.</td>
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<tr>
<td>CORR 184</td>
<td>Introduction to Case Management</td>
<td>2.0</td>
<td>30.0</td>
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<td>You will examine the federal and provincial case management process from sentencing to the development of initial case plans.</td>
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<tr>
<td>CORR 188</td>
<td>Offender Programming</td>
<td>3.0</td>
<td>40.0</td>
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<td>You will review offender programming initiatives in correctional and community settings. You will be able to identify social learning tools as well as the objective and goals of offender programs.</td>
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<tr>
<td>CORR 189</td>
<td>Charter and Policy</td>
<td>1.0</td>
<td>18.0</td>
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<td>You will review legislative and policy directives that impact on the administration of security within institutions. The rights of inmates will be examined along with Institutional policies that govern a correctional officer’s daily duties and an inmate’s rights.</td>
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<tr>
<td>CORR 190</td>
<td>Elements of Security</td>
<td>3.0</td>
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<td>You will examine the elements of security as they relate to the front line correctional officer. You will define and identify various types of contraband found in correctional institutions as well as the protocol for gathering and preserving contraband as evidence. You will analyze the Situation Management Model, the Use of Force Management Model and the RCMP Community Policing Problem Solving Model CAPRA (Clients Acquire/Analyze information, Partnership, Response, Assessment of Action) as a means of managing response options in relation to institutional emergencies and offender behavior. You will also receive hands-on instruction in the application of searching techniques involving offender-occupied areas.</td>
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<tr>
<td>CORR 191</td>
<td>Offender Control</td>
<td>2.0</td>
<td>30.0</td>
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<td>You will receive hands-on instruction in the application of restraint equipment, and the procedural applications of searching clothed and unclothed offenders.</td>
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<tr>
<td>CORR 192</td>
<td>Violent Offenders</td>
<td>3.0</td>
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<td>You will identify violent and sexual offender typologies and discuss the theoretical explanations for violence and sadism. You will examine how Dangerous Offenders and Long Term Supervision Orders are determined by the court. You will also examine intervention strategies for violent and sexual offenders both in the institution and the community.</td>
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<tr>
<td>CORR 193</td>
<td>Institutional and Community Case Management</td>
<td>2.0</td>
<td>30.0</td>
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<td>You will examine the process by which offender progress is monitored in federal and provincial institutions. Specific emphasis will be placed on the case planning required to prepare offenders for reintegration back into the community. You will discuss the conditional release process and the intervention strategies utilized in community release plans.</td>
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</tbody>
</table>
Course Descriptions

CORR 194 Project in Correctional Studies
Credit Units: 4.0   Course Hours: 60.0
You will choose a topic in one of the following areas and develop a project or complete a research paper according to guidelines established by the program. You will be assigned an advisor for this project. All projects/research topics will be developed in conjunction with a program advisor. Suggested areas of study would include: • Mental Health in Corrections • Indigenous Initiatives the criminal justice system • International correctional system comparison research/study • Privatization in correctional industries • Initiatives for Female Offenders • Offenders in the Community • Victimology

CORR 240 Institutional Corrections
Credit Units: 3.0   Course Hours: 45.0
You will review legislative and policy directives that impact on inmates’ rights, their redress and the administration of security within institutions. You will be introduced to various inmate subcultures and the effect that prison gangs have on institutional operations. Manipulative behaviors resulting in staff members being “set-up” by inmates in correctional settings will be analyzed.

CORR 241 Security Foundations
Credit Units: 2.0   Course Hours: 24.0
You will examine the basic foundations of providing security in an institutional setting. You will learn the primary role of the correctional officer in providing care, custody and control of offenders. You will also study the concepts of dynamic and static security and individual security features that provide safety to the public, staff and offenders in institutional settings.

CORR 243 Major Incidents
Credit Units: 2.0   Course Hours: 24.0
You will examine indicators that contribute to disturbances and major incidents that occur in prisons. You will be introduced to the Crisis Management process as a means of address in various disturbances and major incidents. You will further examine contingency plans, procedural policies and resource teams related to responding to institutional emergencies.

CORR 245 Job Preparation
Credit Units: 2.0   Course Hours: 30.0
Prerequisite(s): COMM 119
Equivalent Course(s): LEGL 143
You will develop skills that allow you to successfully compete for jobs in the field of corrections and other related law enforcement careers.

COSA 190 Systems Analysis and Design
Credit Units: 4.0   Course Hours: 60.0
Prerequisite(s): COSC 180
You will explore and apply the concepts required to analyze, design, create, install and document a systems project. You will be exposed to key project management concepts and practices. You will be introduced to an industry standard modeling graphical language.

COSA 195 Systems Project
Credit Units: 4.0   Course Hours: 60.0
Prerequisite(s): CDBM 190, COSA 190, COSC 190
Corequisite(s): CPMG 195
Equivalent Course(s): COSP 191
You will gain experience in small systems analysis, design and implementation. You will be assigned to groups and given the specifications for a software system. You will work together as a team to develop a working system for the client. Emphasis is on the software development process.

COSA 280 IT Development Project 1
Credit Units: 3.0   Course Hours: 45.0
Prerequisite(s): CDBM 280*, CWEB 280*, COSA 195, CPMG 195
Corequisite(s): CPMG 280
You will study and employ the practical and theoretical concepts obtained in first year systems analysis and design courses by building an IT system. You will work as part of a development team on an IT problem for an external industry client. Your project will include the production and demonstration of functioning components of the system each release within deadlines set out in your project management documentation.

COSA 290 IT Development Project 2
Credit Units: 6.0   Course Hours: 90.0
Prerequisite(s): COSA 280, CDBM 280, CPMG 280
Corequisite(s): CPMG 290
You will continue your work as part of a development team on an IT problem for an external industry client that was started in COSA 280. Your project will include the production and demonstration of functioning components of the system each released within deadlines set out in your project management documentation. You will present the final product to the client.
### COSC 180 Introduction to Programming

**Credit Units:** 6.0  **Course Hours:** 90.0  
**Equivalent Course(s):** COSC 180CE

You will learn concepts used in object-oriented programming. You will create programs that use variables, allow for user input and output, and provide opportunities for simple decision strategies. You will also learn how to work with different variable types and how to debug programs. In addition, you will create and use strategies that involve repetition (looping) in your programs. You will create methods and work with elementary data collections (arrays). You will learn how to create object templates (classes) and create and utilize object in your programming. You will develop an understanding of inheritance and polymorphism, and you will utilize these object oriented techniques to solve problems.

### COSC 181 Computer Science

**Credit Units:** 4.0  **Course Hours:** 60.0  
**Prerequisite(s):** CO 172  
**Equivalent Course(s):** COSC 193, COSC 284

You will be provided an introduction to computers and computer programming, a description of structured programming and the program development cycle. You will learn how to design modular event-driven programs using a top-down structured approach. Your lab work will include using the Visual BasicNet language to develop applications for solving engineering problems. Your introduction to VB.Net and VB.Net environment will be followed by a discussion of object-oriented programming using an object oriented event-driven high-level language, event procedures, forms and form controls. You will learn techniques for coding event procedures using algorithms and flow charts to implement sequence selection and repetition control structures. You will examine functions, subprocedures and arrays. Examples used in the lab will be taken from engineering applications.

### COSC 190 Intermediate Programming

**Credit Units:** 6.0  **Course Hours:** 90.0  
**Prerequisite(s):** COSC 180

You will receive instruction in working with data structures and creating recursive methods. You will utilize standard file input/output techniques. You will learn about the basic tenants of Functional programming. You will become familiar with and be able to manipulate such advanced data structures as stacks and queues. The course content includes introductory GUI development, thread-based programming, and builds towards an introduction of Network programming techniques (sockets and Database access).

### COSC 193 Programming and Numerical Methods

**Credit Units:** 4.0  **Course Hours:** 64.0  
**Equivalent Course(s):** CDBM 190

You will gain an understanding of computer programming by developing your basic programming skills and knowledge, and applying them to the structured solution of engineering problems. Developing good programming habits, flowcharts/ algorithms and structured, modular programs that are well documented and tested will be emphasized. You will use Graphical User Interfaces to provide high-quality presentations of program data and results, and to conform to the high standards and expectations of today's users.

### COSC 195 Mobile Application Programming

**Credit Units:** 3.0  **Course Hours:** 40.0  
**Prerequisite(s):** COSC 190  
**Equivalent Course(s):** COSC 195CE

You will develop mobile application programs. Your studies will focus on the Android mobile environment and include an understanding of the mobile application development environment. You will develop simple and advanced mobile applications as well as understand mobile environment limitations and security issues with mobile applications. You will have an opportunity to publish mobile applications.

### COSC 262 Database Programming

**Credit Units:** 4.0  **Course Hours:** 60.0  
**Prerequisite(s):** COMP 176  
**Equivalent Course(s):** COSC 262CE

You will learn the structure of program design, development, testing and documentation. You will learn to design single and multi-table databases using the Statistical Package for Social Sciences (SPSS) and Access. Your course content will include the fundamentals of algorithms and algorithm analysis.

### COSC 286 Advanced Programming 1

**Credit Units:** 5.0  **Course Hours:** 75.0  
**Prerequisite(s):** COSC 190

You will study the use of predefined abstract data types and user defined abstract data types to improve program modularity. Your studies will include the design and implementation of abstract data types using object-oriented data structures. Topics will include alternative implementations of data structures and sorting techniques using interfaces, collections and iterators.
### COSC 292 Advanced Programming 2
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s):  COSC 286  
You will study structured programming techniques, a procedural language, functions, pointers, file input/output, records and dynamic memory management to create applications.

### COSC 295 Advanced Mobile Application Programming
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s):  COSC 195  
You will study basic iOS application development for Apple mobile devices and cross platform development that works on Android and Apple devices. Your studies will include an introduction to a programming language required to create applications for iOS mobile devices. Also, you will utilize a cross platform development tool to create a mobile application that can run on multiple platforms.

### COSC 600 Introduction to Programming 1
Credit Units: 3.0  Course Hours: 45.0  
You will learn concepts used in object-oriented programming. You will create programs that use variables, allow for user input and output, and provide opportunities for simple decision strategies. You will also learn how to work with different variable types and how to debug programs. In addition, you will create and use strategies that involve repetition (looping) in your programs.

### COSC 601 Introduction to Programming 2
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s):  COSC 600*  
You will create methods and work with elementary data collections (arrays). You will learn how to create object templates (classes) and create and utilize object in your programming. You will develop an understanding of inheritance and polymorphism, and you will utilize these object oriented techniques to solve problems.

### COSC 602 Intermediate Programming 1
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s):  COSC 601  
You will receive instruction in working with data structures and creating recursive methods. You will utilize standard file input/output techniques. You will learn the basic tenents of functional programming. You will become familiar with and be able to manipulate such advanced data structures as stacks and queues.

### COSC 603 Intermediate Programming 2
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s):  COSC 602*  
You will study introductory concepts related to graphical user interface (GUI) development, thread-based programming, and build towards an introduction of network programming techniques; specifically working with sockets and backend databases.

### COSC 604 Advanced Programming
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s):  COSC 603*  
You will study the use of predefined abstract data types and user defined abstract data types to improve program modularity. Your studies will include the design and implementation of abstract data types using object-oriented data structures. You will learn alternative implementations of data structures and sorting techniques using interfaces, collections and iterators.

### COSM 100 Reception and Retail
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s):  SANT 105  
Equivalent Course(s):  SUPP 144  
Your studies will focus on telephone skills, processing payments, maintaining records and opening and closing reception duties. You will practice your reception skills in the salon along with selling products and services, merchandising retail products and managing a salon.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSM 102</td>
<td>Manicuring and Pedicuring</td>
<td>2.0</td>
<td>30.0</td>
<td>SANT 105</td>
<td>COSM 146</td>
</tr>
<tr>
<td></td>
<td>You will develop an understanding of the anatomy of hands and feet. Your studies will help you acquire an understanding of hand and nail care, diseases and disorders. You will practice giving manicures and pedicures.</td>
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<tr>
<td>COSM 208</td>
<td>Skin Care and Makeup Techniques</td>
<td>3.0</td>
<td>45.0</td>
<td>SANT 105, SCI 107</td>
<td>COSM 145</td>
</tr>
<tr>
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<td>You will focus on a variety of methods and procedures that relate to preserving, maintaining and enhancing the skin. You will practice techniques in skin analysis, eyebrow arching, plain and specialized facials, waxing, ear piercing and brow and lash tinting. Lab experience will provide you with skill in a variety of make-up techniques that range from daytime to specialized. You will study skin diseases and disorders to assist you in selecting the most beneficial skin care products to suit the skin condition.</td>
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<tr>
<td>COSM 214</td>
<td>Machine Applied Skin Care</td>
<td>1.0</td>
<td>15.0</td>
<td>SANT 105, COSM 208</td>
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<td>You will learn how to use and maintain many technical tools, such as galvanic and high frequency machines, to perform facial treatments. These will require special electrical and safety precautions. You will learn about the tools used during in-depth facials, as well as the role electricity plays in skin care.</td>
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<tr>
<td>COSM 215</td>
<td>Specialized Facial Treatment, Set-up and Analysis</td>
<td>2.0</td>
<td>30.0</td>
<td>SANT 105, COSM 208</td>
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<td>You will be introduced to all aspects of facials, as well as the importance of recommending a homecare regimen. You will learn the importance of first impressions and professionalism in your work environment. You will be introduced to five standard skin types. You will then obtain and analyze essential data from the client, including a health history, in order to make accurate decisions about recommended services.</td>
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<tr>
<td>COSM 216</td>
<td>Epilation</td>
<td>2.0</td>
<td>30.0</td>
<td>SANT 105, COSM 208</td>
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<td>Removing unwanted hair makes up a large part of a salon or spa's business. You will learn the hair removal procedures an esthetician is expected to know in the professional world. Your studies will focus on sanitation and tools for hair removal, as well as how hair growth has been viewed in various cultures.</td>
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<tr>
<td>COSM 217</td>
<td>Specialized Manicures and Pedicures</td>
<td>1.0</td>
<td>15.0</td>
<td>SANT 105, COSM 208</td>
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<td></td>
<td>You will learn specialized techniques that will allow you to expand the services you can offer your manicure and pedicure clients. You will practice several different types of treatments that will enhance your services.</td>
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<tr>
<td>COSM 218</td>
<td>Nail Technology</td>
<td>6.0</td>
<td>90.0</td>
<td>COSM 102</td>
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<td>You will learn manicuring, pedicuring and artificial nail services for fashion-conscious clients. This course will teach you the many types of artificial nail extensions, nail art, nail maintenance and repair. In addition, you will learn about marketing and operating a nail business.</td>
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<tr>
<td>COSM 219</td>
<td>Spa Body Treatments</td>
<td>2.0</td>
<td>35.0</td>
<td>SANT 105</td>
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<td>Your studies will focus on the rapidly growing field of spa body treatments, which is part of the preventative medicine and wellness movement. You will learn that facial treatments are very closely related to other services offered for the body. You will learn how to clean, stimulate, and hydrate skin on the rest of the body, besides the face.</td>
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<tr>
<td>COSM 220</td>
<td>Make-up Artistry</td>
<td>1.0</td>
<td>18.0</td>
<td>COSM 208</td>
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<td>You will learn how to look at the natural beauty of the client and enhance or correct the facial features to give that person an overall pleasing look. You will be introduced to various looks that are created by make-up artists for theatrical, corrective and camouflage purposes. In addition, you will learn how to apply the theory of colour, set up a make-up station, consult with a client, and choose a product line.</td>
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### COSM 221 Advanced Clinical Skin Care
**Credit Units:** 1.0  **Course Hours:** 10.0  
**Prerequisite(s):** COSM 208

You will learn how estheticians are becoming partners with physicians to jointly offer patients expanded clinical skin care services to complement their medical treatment. You will learn about protocols, advanced treatments, surgical procedures, medical documentation, patient education, product knowledge and contraindications. You will gain an understanding of what results are expected for each treatment and procedure.

### COSM 222 Specialized Esthetic Treatments
**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** SANT 105, COSM 102

You will learn how to treat the many clients who seek the assistance of an esthetician for advanced skin care conditions, such as hyper-pigmentation, sun damage and acne. You will learn how to combine both medical salon treatments and home care to treat these conditions. Your studies will focus on what causes such conditions, what aggravates them, and what clears them. In addition, you will gain an understanding of how to treat ethnic skin, which is crucial in our culturally diverse society.

### COUN 100 Crisis Intervention
**Credit Units:** 1.0  **Course Hours:** 16.0  
**Equivalent Course(s):** COUN 100CE

You will learn the principles of crisis intervention. You will demonstrate basic strategies for dealing with individuals who are in a state of crisis.

### COUN 154 Addictions Counselling Theory
**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** COUN 152, COUN 158, ETHC 140

You will receive an orientation to the complete skilled helping process using the Egan Three Stage Problem Management Approach and the Opportunity Development Approach to Helping. You will examine establishing rapport, foundational counselling skills, assessing client problems, the process of facilitating client self-exploration, assisting a client in developing new perspectives and setting goals. You will learn how to challenge clients when they are stuck, the role of challenging denial in co-dependent and addicted clients, and the process of facilitating clients in designing their treatment plans.

### COUN 155 Addictions Counselling Practice
**Credit Units:** 8.0  **Course Hours:** 120.0  
**Prerequisite(s):** COUN 154*

You will conduct one to one counselling sessions using the Egan Three Stage Problem Management Approach and Opportunity Development Approach to Helping. You will practice foundational counselling skills, assist clients (both chemically dependent and their family members) with identifying, exploring, and clarifying problem situations. You will also assist clients in setting recovery goals and creating and implementing treatment plans. You will learn how to challenge denial, establish rapport, close helping sessions and adhere to the addictions worker code of ethics.

### COUN 156 Addictions and Intervention Strategies
**Credit Units:** 2.0  **Course Hours:** 30.0  
**Prerequisite(s):** COUN 245

Your studies will focus on the goals and philosophy of interventions. You will examine and practice an intervention process as it applies to initiating recovery from the addictions process. You will also examine the role of employee and family assistance programs as a form of intervention and harm reduction.

### COUN 157 Motivational Interviewing
**Credit Units:** 2.0  **Course Hours:** 30.0  
**Prerequisite(s):** CDEP 177  
**Equivalent Course(s):** COUN 150

You will examine the elements and process of motivational interviewing. You will also explore what motivates a person to change, in particular, to seek and maintain recovery from various conditions. You will practice the motivational interviewing process and working with resistant clients.
## COUN 158 Assessments and Recovery Plans
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): CDEP 178, CDEP 180, CDEP 181, CLTR 148, ETHC 140, HUMD 144, MHA 143, MHA 144  
Equivalent Course(s): COUN 149  
You will examine various comprehensive assessment instruments, the process of assessing clients using the whole person model in treatment modalities, case management procedures, risk assessment and best practices. You will practice both paper and electronic documentation and record keeping.

## COUN 159 Counselling Theory
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): ETHC 140  
You will receive an orientation to the complete skilled helping process. You will examine establishing rapport, foundational counselling skills, assessing client problems, the process of facilitating client self-exploration, assisting a client in developing new perspectives and setting goals. You will also examine the skills of challenging clients when they are stuck and the process of facilitating clients in designing their treatment plans.

## COUN 160 Crisis Intervention
Credit Units: 1.0  Course Hours: 16.0  
You will learn the principles of crisis intervention and negotiation as they apply to policing. You will demonstrate basic strategies for dealing with individuals who are in a state of crisis.

## COUN 180 Suicide Intervention
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): PRAC 385  
Equivalent Course(s): COUN 180CE  
You will acquire knowledge and develop skills for suicide prevention and intervention. You will explore personal and community perspectives on suicide. You will identify and assess suicide risk factors, apply suicide intervention techniques, and examine ways to mobilize community support. You will identify suicide prevention and post-vention strategies related to helping individuals and the community.

## COUN 239 Addictions Group Counselling
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): ADMN 251, ADMN 253, CDEP 246, COUN 155  
You will examine the principles of designing, facilitating and evaluating personal growth groups. Addictions education and recovery groups will be emphasized. The areas that you will explore include the nature and purpose of group counselling, models and stages of group growth and development, leadership/facilitator styles and skills, critical incidents, intervention techniques and designing groups using the Developmental Model of Recovery.

## COUN 241 Counselling Modalities
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): COUN 155  
You will be introduced to various counselling techniques that can be used to accompany the Egan Three Stage Problem Management Approach and Opportunity Development Approach to Helping. You will review the important link between counselling and twelve step programs. You will discuss the techniques as they apply to addictions counselling. You will have an opportunity to present a counselling modality.

## COUN 244 Addictions Group Design
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): COUN 239  
Equivalent Course(s): COUN 240  
You will examine, design, present and evaluate various addictions and personal growth group designs. The course will emphasize the developmental model of recovery and the trans-theoretical model of change.

## COUN 245 Addictions Group Facilitation
Credit Units: 6.0  Course Hours: 90.0  
Prerequisite(s): COUN 244  
Equivalent Course(s): COUN 240  
Your studies will focus on the skills needed to facilitate a group process, manage critical incidents, conduct third-party mediations, present planned theory inputs, facilitate structured experiences and assess group progress. The activities are designed to replicate a typical addictions education/counselling group according to the Developmental Model of Recovery. All activities will be videotaped with extensive feedback on your participation and facilitation skills.
Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPMG 195</td>
<td>Systems Project Management</td>
<td>1.0</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): COSA 190, TCOM 190</td>
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<tr>
<td></td>
<td>Corequisite(s): COSA 195</td>
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<tr>
<td></td>
<td>Equivalent Course(s): COSP 190</td>
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</tr>
<tr>
<td></td>
<td>You will practice project management, documentation, meeting and presentation skills. As a contributor to a computer system development project, you will prepare for and participate in project meetings, prepare project management documentation, manage progress using project management techniques, maintain storage of project documentation and deliver a presentation on the project to the client.</td>
<td></td>
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</tr>
<tr>
<td>CPMG 280</td>
<td>IT Development Project Management 1</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): COSA 195, CPMG 195</td>
<td></td>
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<tr>
<td></td>
<td>Corequisite(s): COSA 280</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>You will practice project management, documentation, meeting and presentation skills. As a contributor to a computer system development project, you will prepare for and participate in project meetings, prepare project management documentation, adapt project management processes as required, manage progress using project management techniques and manage storage of project documentation.</td>
<td></td>
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</tr>
<tr>
<td>CPMG 290</td>
<td>IT Development Project Management 2</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): COSA 280, CPMG 280</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corequisite(s): COSA 290</td>
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<tr>
<td></td>
<td>Equivalent Course(s): TCOM 290</td>
<td></td>
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<tr>
<td></td>
<td>You will continue your project management work from CPMG 280. You will continue to improve your project management, documentation, meeting and presentation skills. As well, you will make use of project monitoring techniques. As a contributor to a computer system development project, you will prepare for and participate in project meetings, prepare project management documentation, adapt project management processes as required, manage progress using project management techniques, manage storage of project documentation and deliver a presentation on a project.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRWT 100</td>
<td>Writing for Social and Interactive Media</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Equivalent Course(s): CRWT 100CE</td>
<td></td>
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<tr>
<td></td>
<td>You will develop a theoretical understanding of the content used for Social and Interactive Media. You will gain practical experience in the basics of writing and editing online content and how to create a digital story.</td>
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</tr>
<tr>
<td>CRWT 101</td>
<td>Introduction to Script Writing</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): COMP 102*, PROF 100*</td>
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<tr>
<td></td>
<td>You will discuss script formats and writing techniques that will provide a basic understanding of script writing. Your studies will include the research process, content requirements and script revision.</td>
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</tr>
<tr>
<td>CRWT 200</td>
<td>Story Development</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): CRWT 101</td>
<td></td>
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<tr>
<td></td>
<td>You will examine dramatic writing techniques used to develop both fiction and non-fiction scripts. Your studies will focus on characterization, dialogue, visualization and the revision process in script writing. You will apply these skills to produce fictional and non-fictional scripts.</td>
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</tr>
<tr>
<td>CSEC 200</td>
<td>Security</td>
<td>2.0</td>
<td>28.0</td>
</tr>
<tr>
<td></td>
<td>Equivalent Course(s): COAP 104, CSEC 200CE</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>You will learn the basic concepts of computer security. The course content includes encryption, firewalls and proxies, authentication and certificates, general security considerations and best practices. You will create a best-practices checklist as a practical exercise.</td>
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<tr>
<td>CSEC 280</td>
<td>Security 1</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): CNET 184</td>
<td></td>
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<tr>
<td></td>
<td>You will learn the fundamentals of computer security. You will learn to recognize several areas of security attacks, examine current security measures and evaluate techniques to enhance existing measures. You will examine methods to maintain the integrity of an organizations network infrastructure and the day-to-day operations.</td>
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</tbody>
</table>

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**Course Descriptions**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSEC 295</td>
<td>Security Topics</td>
<td>3.0</td>
<td>50.0</td>
<td>COHS 280, COOS 293, COSC 292, COSC 295</td>
</tr>
<tr>
<td></td>
<td>You will learn various attack and defense methodologies. While exploring current and emerging security topics you will learn how computer security affects businesses and business data. You will be introduced to the protection of an organizations assets, intellectual property and employees as well as methods for maintaining business continuity.</td>
<td></td>
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</tr>
<tr>
<td>CSEC 300</td>
<td>Cybersecurity</td>
<td>4.0</td>
<td>60.0</td>
<td>COHS 220</td>
</tr>
<tr>
<td></td>
<td>You will be introduced to computer and network security concepts. You will gain knowledge on the multiple areas of cybersecurity and its implementation.</td>
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</tr>
<tr>
<td>CSEC 600</td>
<td>Operating Systems and Applications Security</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>You will focus on the vulnerabilities of Windows and Linux operating systems. Your studies will include the best practices and methodologies to ensure that critical security upgrades and system patches are installed. You will explore vulnerabilities to web applications.</td>
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</tr>
<tr>
<td>CSEC 601</td>
<td>Web Security</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will delve into the current scripting and computer languages used by modern web clients and servers. Your focus will be on the programming methodologies used to prevent exploitation of web security vulnerabilities.</td>
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<tr>
<td>CSEC 602</td>
<td>Security Planning</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>You will develop the skills to identify essential elements of a Security Management System and the business processes that require protection. You will conduct risk assessments that will identify vulnerabilities and countermeasures to prevent and mitigate system failures. You will be able to identify the consequences of data loss and the safeguards to prevent data loss. Your studies will concentrate on the principles of implementing security in an organization, the preparation of cybersecurity policies and the assessment of effectiveness of existing cybersecurity policies.</td>
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<tr>
<td>CSEC 603</td>
<td>Information Security Testing</td>
<td>3.0</td>
<td>45.0</td>
<td>CSEC 602</td>
</tr>
<tr>
<td></td>
<td>You will learn how cyber-attacks penetrate Information Technology (IT) systems by circumventing security or exploiting vulnerabilities in the systems. You will apply a methodical approach to surveying, testing and auditing systems, and you will learn to prepare secure system designs, identify vulnerabilities, and defend systems against intrusion.</td>
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<tr>
<td>CSEC 604</td>
<td>CCNA Security</td>
<td>3.0</td>
<td>45.0</td>
<td>CNET 601, CSEC 600, INTL 600*</td>
</tr>
<tr>
<td></td>
<td>You will survey several aspects of network security to manage secure access to enterprise networks and servers. You will study the control of network access through centralized authentication, authorization and accounting protocols, and Virtual Private Networks. You will also study the implementation of Intrusion Prevention Systems to monitor for malicious traffic. You will configure Cisco Systems network security devices to provide secure access to the enterprise network. You will explore modern malware techniques and the use of cryptography to protect data. After completing the CCNA Security course, you will be prepared to take the CCNA - Security certification exam.</td>
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</tr>
<tr>
<td>CSEC 605</td>
<td>Network Monitoring and Penetration Testing</td>
<td>3.0</td>
<td>45.0</td>
<td>CNET 601, CSEC 600, INTL 600*</td>
</tr>
<tr>
<td></td>
<td>You will learn techniques used to monitor networks for unauthorized access. Your studies will include the concept of ethical hacking and the tools and methods systems used to test the security of systems currently in operation.</td>
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</tr>
<tr>
<td>CSEC 606</td>
<td>Ethical Hacking and Exploits</td>
<td>3.0</td>
<td>45.0</td>
<td>CSEC 602</td>
</tr>
<tr>
<td></td>
<td>You will learn various attack and defense methodologies. While exploring current and emerging security topics you will learn how computer security affects businesses and business data. You will be introduced to the protection of an organizations assets, intellectual property and employees as well as methods for maintaining business continuity.</td>
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</tr>
</tbody>
</table>

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## Course Descriptions

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<tr>
<th>Course Code</th>
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<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSEC 607</td>
<td>Digital Forensics</td>
<td>3.0</td>
<td>45.0</td>
<td>INTL 601*</td>
<td>You will study the principals of digital forensics to detect, recover, trace, analyze and interpret digital evidence. You will file structure, data recovery techniques, data hiding and the process for conducting a digital investigation.</td>
</tr>
<tr>
<td>CSRV 100</td>
<td>Microsoft Windows Server 1</td>
<td>6.0</td>
<td>90.0</td>
<td></td>
<td>You will study curriculum associated with the first of three exams required for the Microsoft Certified Solutions Associate exam (MCSA). You will validate the skills and knowledge necessary to implement a core Windows Server Infrastructure into an existing enterprise environment. The three MCSA exams collectively validate the skills and knowledge necessary for implementing, managing, maintaining, and provisioning services and infrastructure in a Windows Server environment. This Microsoft course is mapped to the current Administering Windows Server exam skills, including the recent objectives.</td>
</tr>
<tr>
<td>CSRV 101</td>
<td>Microsoft Windows Server 2</td>
<td>6.0</td>
<td>90.0</td>
<td>CSRV 100</td>
<td>You will study curriculum associated with the second of three exams required for the Microsoft Certified Solutions Associate exam (MCSA). You will validate the skills and knowledge necessary to implement a Windows Server Infrastructure into an existing enterprise environment. The three MCSA exams collectively validate the skills and knowledge necessary for implementing, managing, maintaining, and provisioning services and infrastructure in a Windows Server environment. This Microsoft course content is mapped to the current Administering Windows Server exam skills, including the recent objectives.</td>
</tr>
<tr>
<td>CSRV 102</td>
<td>Microsoft Windows Server 3</td>
<td>6.0</td>
<td>90.0</td>
<td>CSRV 101*</td>
<td>You will study the curriculum associated with the third of three exams required for the Microsoft Certified Solutions Associate exam (MCSA). You will validate the skills and knowledge necessary to implement a Windows Server Infrastructure into an existing enterprise environment. The three MCSA exams collectively validate the skills and knowledge necessary for implementing, managing, maintaining, and provisioning services and infrastructure in a Windows Server environment. This Microsoft course content is mapped to the current Administering Windows Server exam skills, including the recent objectives.</td>
</tr>
<tr>
<td>CUST 100</td>
<td>Customer Service Skills</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>You will develop your skills in providing customer service with an understanding of cultural, gender and disability diversity. The importance of customer service to an organization will be stressed.</td>
</tr>
<tr>
<td>CVEN 198</td>
<td>Civil Engineering Fundamentals</td>
<td>4.0</td>
<td>60.0</td>
<td>CADD 211</td>
<td>You will apply CAD drafting skills and engineering design fundamentals to produce civil engineering drawings. You will be introduced to civil design theories, municipal as well as provincial guidelines and regulations. You will use current civil design CAD software to produce your drawings.</td>
</tr>
<tr>
<td>CVEN 199</td>
<td>Civil Design 2</td>
<td>2.0</td>
<td>30.0</td>
<td>CVEN 198</td>
<td>You will become familiar with planning and designing municipal infrastructures. Your studies will include site grading and servicing developed areas with storm water, sanitary sewer and potable water delivery.</td>
</tr>
<tr>
<td>CVEN 200</td>
<td>Civil Applications</td>
<td>4.0</td>
<td>60.0</td>
<td>CVEN 199</td>
<td>You will apply computer aided drafting (CAD) skills and engineering design fundamentals to develop civil and municipal works. Your studies will focus on site planning, layout, grading, drainage and municipal services.</td>
</tr>
<tr>
<td>CVEN 201</td>
<td>Civil Design Project</td>
<td>4.0</td>
<td>60.0</td>
<td>CVEN 199, CVEN 200</td>
<td>You will apply computer aided drafting (CAD) skills and engineering design fundamentals to complete a civil design project. You will focus on site planning and design, and interpreting, analyzing and applying design and drafting standards. You will use current civil design CAD software to produce a set of engineering drawings.</td>
</tr>
</tbody>
</table>

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## Course Descriptions

### CWEB 100 Software Applications
- **Credit Units:** 2.0  
- **Course Hours:** 30.0
You will study the fundamental concepts concerning programming and software applications. You will use Javascript to create and execute code embedded within a Hypertext Markup Language (HTML) webpage. You will become versed in conditional and modular coding, as well as writing loops and using inputs and outputs. You will debug your Javascript program and compare how other coding languages compare to Javascript.

### CWEB 180 Web Site Development
- **Credit Units:** 4.0  
- **Course Hours:** 60.0
*Equivalent Course(s):* CNET 191, CWEB 180CE
You will learn how to use HyperText Markup Language (HTML) to develop Web pages for delivery over the World Wide Web. You will also learn how to plan and develop HTML documents to build a Web site based on W3 standards and enhance HTML documents using current techniques such as Cascading Style Sheets (CSS) site management using current software.

### CWEB 190 Internet Programming/Web Applications 1
- **Credit Units:** 4.0  
- **Course Hours:** 60.0
*Prerequisite(s):* COSC 180, CWEB 180
*Equivalent Course(s):* COSC 287
You will receive instruction and practice in the development of client-side Web applications. You will use JavaScript to improve Web page design, validate forms, detect browsers, create cookies, and detect and respond to user actions.

### CWEB 195 Website Interface Design
- **Credit Units:** 2.0  
- **Course Hours:** 30.0
*Prerequisite(s):* CWEB 190
*Equivalent Course(s):* COMP 190
You will plan and create a small website following current best practices. You will analyze website requirements. Using those requirements and following usability guidelines, you will design a site that works well on both desktop and mobile devices. You will apply responsive web design techniques. You will choose and create appropriate media for website content.

### CWEB 200 Website Development
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
*Prerequisite(s):* COMP 170
You will learn how to use HyperText Markup Language (HTML) to develop Web pages for delivery over the World Wide Web. You will also learn how to plan and develop HTML documents to build a Web site based on W3 standards and enhance HTML documents using current techniques such as Cascading Style Sheets (CSS) using current software. These websites will also follow usability guidelines.

### CWEB 280 Internet Programming/Web Applications 2
- **Credit Units:** 5.0  
- **Course Hours:** 75.0
*Prerequisite(s):* CDBM 280*, COSC 190, CWEB 195
*Equivalent Course(s):* COSC 293
You will receive instruction and practice in the development of server-side Web applications. You will learn how to write scripts that allow remote users to interface with databases existing on a World Wide Web server. You will become familiar with Hypertext Preprocessor (PHP), Structured Query Language (SQL), and Ajax.

### CWEB 600 Website Development
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
You will learn how to use HyperText Markup Language (HTML) to develop Web pages for delivery over the World Wide Web. You will also learn how to plan and develop HTML documents to build a Web site based on W3 standards and enhance HTML documents using current techniques such as Cascading Style Sheets (CSS).

### CWEB 601 Internet Programming and Web Apps 1
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
*Prerequisite(s):* CWEB 600*
You will receive instruction and practice in the development of client-side Web applications. You will use javascript to improve Web page design, validate forms, detect browsers, create cookies, and detect and respond to user actions.

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWEB 602</td>
<td>Internet Programming and Web Apps 2</td>
<td>3.0</td>
<td>45.0</td>
<td>CWEB 601</td>
<td>You will receive instruction and practice in the development of server-side Web applications. You will learn how to write scripts that allow remote users to interface with databases existing on a World Wide Web server. You will become familiar with Hypertext Preprocessor (PHP) and Structured Query Language (SQL).</td>
</tr>
<tr>
<td>CWEB 603</td>
<td>UX/UI Fundamentals</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>You will study the concepts of User Experience (UX) which encompass a wide range of activities including User Interface (UI) design, Information Architecture (IA) and field research. You will learn about usability design and testing, tight integration and collaboration with software development processes which are elements of User Experience (UX). You will develop a better understanding of the role of Experience User Interface (UX/UI) as you follow an iterative and agile approach which focuses on User-Centered Design (UCD) as the motivator for product direction.</td>
</tr>
<tr>
<td>CWEX 100</td>
<td>Essential Skills Foundations</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>You will learn about the importance of Essential Skills for Canadian employers, and verify your current level of Essential Skills using both formal and informal assessments. You will also compare your Essential Skills to the requirements of Canadian employers and set personal goals for improvement. Your studies will include an introduction to key strategies for building Essential Skills.</td>
</tr>
<tr>
<td>CWEX 101</td>
<td>Applying Essential Skills</td>
<td>2.0</td>
<td>30.0</td>
<td>CWEX 100</td>
<td>You will use a variety of learning resources and tools to practice and build the Essential Skills most important for your career. You will use the strategies you have learned to help conduct your job search and to improve your understanding of your preferred occupation.</td>
</tr>
<tr>
<td>CWEX 102</td>
<td>Tools and Techniques to Find a Job</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>You will develop the knowledge, skills and tools required to conduct a successful job search, including a customized resume, cover letter, online job application and employment portfolio. You will also practice professional interviewing techniques and review current human resource strategies for job seekers. You will recognize the impact of social media on your career and job search.</td>
</tr>
<tr>
<td>CWEX 103</td>
<td>Strategies for Workplace Success</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>You will review and practice a variety of employability skills valued by Canadian employers. You will improve your oral communication skills and demonstrate your ability to work as an effective team member. You will identify important service excellence behaviors and develop the knowledge, skills and attitudes needed to work well with people from indigenous and a variety of world cultures. You will also review Saskatchewan employment laws and practice sending effective business messages.</td>
</tr>
<tr>
<td>CYTO 180</td>
<td>Gynecologic Cytology Theory 1</td>
<td>3.0</td>
<td>50.0</td>
<td>PATH 281, HSTC 184*</td>
<td>You will study the cytomorphology of the female genital tract in the absence of pathology. This includes the responses of the female genital tract to the endocrine system, as well as inflammatory reactions and microorganisms found in cytologic specimens.</td>
</tr>
<tr>
<td>CYTO 181</td>
<td>Gynecologic Cytology Lab 1</td>
<td>4.0</td>
<td>57.0</td>
<td>PATH 281, CYTO 180*</td>
<td>Building on the theory learned in Gynecologic Cytology Theory 1 (CYTO 180), you will develop the skills needed to recognize normal states in gynecologic specimens. This includes cytohormonal patterns and inflammatory agents.</td>
</tr>
</tbody>
</table>
Course Descriptions

CYTO 182 Respiratory Cytology 1
Credit Units: 4.0  Course Hours: 56.0
Prerequisite(s):  PATH 281, HSTC 184*

You will develop an understanding of the anatomy, histology and normal cytology of the lung. You will study the cytologic features associated with benign conditions, fungal diseases and viral infections in sputum, bronchial brush, bronchial wash, bronchial alveolar lavage and fine needle aspiration specimens. You will also develop detection skills in recognizing the elements studied.

CYTO 184 Aspiration Cytology 1
Credit Units: 5.0  Course Hours: 68.0
Prerequisite(s):  PATH 281, HSTC 184

Your studies will focus on the embryology, anatomy, histology and cytology of the breast and thyroid gland. The pathology of each site will be related to histologic and cytologic features. You will study the principles of immunocytochemistry in relation to differential diagnoses. Your laboratory sessions will complement the theory and will focus on identifying pathologic states.

CYTO 280 Gynecologic Cytology Theory 2
Credit Units: 4.0  Course Hours: 53.0
Prerequisite(s):  CYTO 180

Building on the theory learned in Gynecologic Cytology Theory 1 (CYTO 180) you will study the cytomorphology of the female genital tract in pathologic states. This includes both benign and malignant lesions, as well as reactions to therapy.

CYTO 281 Gynecologic Cytology Lab 2
Credit Units: 6.0  Course Hours: 83.0
Prerequisite(s):  CYTO 181, CYTO 280*

Building on the theory learned in Gynecologic Cytology Theory 2 (CYTO 280), you will develop the skills needed to recognize pathologic states in gynecological cytology. The early detection of asymptomatic cancer will be emphasized.

CYTO 282 Respiratory Cytology 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  CYTO 182

Building on the knowledge acquired in Respiratory Cytology 1 (CYTO 182) you will develop an understanding of the pathology of the lung. You will review the cytologic features of lung cancer in sputum, bronchial brush, bronchial wash and fine needle aspiration specimens. Your laboratory sessions will complement the theory and will focus on recognizing and differentiating malignant tumours of the lung. You will also develop detection skills in recognizing the elements studied.

CYTO 283 Aspiration Cytology 2
Credit Units: 4.0  Course Hours: 57.0
Prerequisite(s):  PATH 281, HSTC 184

You will study embryology, anatomy, histology and cytology of the lymph nodes, salivary glands, head and neck lesions, and other less common organs and systems. The pathology of each site will be related to histologic and cytologic features. You will study the principles of immunocytochemistry in relation to differential diagnoses. Your laboratory sessions will complement the theory and will focus on identifying pathologic states.

CYTO 286 Body Fluid Analysis
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s):  PATH 281, HSTC 184

You will develop an understanding of the anatomy, histology and cytology of the urinary tract, body cavities and central nervous system. You will study cytologic features associated with various pathologic states in fluid and aspirated specimens. Your laboratory sessions will complement the theory and will focus on recognizing normal and pathologic states. You will also develop detection skills in recognizing the elements studied.

CYTO 287 Gastrointestinal Cytology
Credit Units: 4.0  Course Hours: 65.0
Prerequisite(s):  PATH 281, HSTC 184

Your studies will focus on the anatomy, histology and cytology of the gastrointestinal tract and accessory organs. The pathology of each site will be related to histologic and cytologic features. You will learn principles of ancillary studies in relation to differential diagnoses. Your laboratory sessions will complement the theory and will focus on identifying malignant pathologic states.
### DEMC 183 Dementia Behaviour
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): DEMC 183CE

You will study the types, behaviours and progression of dementia. Behaviour mapping techniques and interventions that promote optimum levels of functioning will be learned.

### DEMC 280 Dementia Family Care
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s): DEMC 280CE

You will learn how those with dementia are assessed and how to intervene in emergency situations. You will discuss environments and issues related to institutional care placement and the impact dementia has on families.

### DENT 159 Preventive Dentistry and Nutrition
Credit Units: 3.0  Course Hours: 45.0

You will be introduced to the concepts of preventive dentistry and nutrition as they relate to general/oral health and disease. You will learn the relationship between dental biofilm and oral diseases. In addition, you will study the appropriate use of and indications for oral care aids, products, and professional methods designed to prevent and control oral disease. A basic understanding will be developed of the functions and dietary sources of major nutrients, the nutritional needs throughout the lifecycle, as well as nutrition-related oral health issues. Your studies will help you develop the knowledge, skill, and attitude to practice excellent personal oral health care.

### DENT 164 Preventive Dentistry 1
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): BIOL 100, BIOL 101, CHEM 102, CHEM 103, ENGL 101, ENGL 102, PSYC 102, PSYC 103, SOCI 171, STAT 100

Your studies will provide an introduction to the philosophy of preventive dentistry. You will study the relationship between diet and oral health. You will learn the relationship between dental biofilm and oral disease. You will study oral care aids and products designed to prevent and control oral disease, including fluoride. You will acquire the knowledge, skills and attitude required to practice oral disease control.

### DENT 165 Dental Technology
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): DHYG 276
Equivalent Course(s): DENT 161

You will study physical and mechanical properties of dental materials used to take alginate impressions. You will also make study models of teeth and fabricate mouth protectors and whitening trays. You will practice manipulating the materials and operating equipment commonly used in dental offices and laboratories. You will critique your work by evaluating against the criteria for satisfactory laboratory generated items.

### DENT 166 Oral Embryology, Histology and Anatomy
Credit Units: 3.0  Course Hours: 45.0

You will learn, through lectures and laboratory/clinical experiences, the basic anatomy of permanent and deciduous teeth, their sequence of eruption, the basic structures of the oral cavity and the supporting dental structures. You will study prenatal and postnatal development and factors that affect normal and abnormal development of the face, palate, teeth and related structures of the oral cavity.

### DENT 180 Dental Technology
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): DENT 166, DNTL 167, DNTL 168, DNTL 169, DNTL 171, DNTL 172

You will study the physical properties of materials used for taking preliminary impressions and for fabricating diagnostic casts with dental stone. You will learn to take upper and lower preliminary impressions with a bite registration, and fabricate and finish stone casts. In addition, you will produce a mouthguard and whitening tray using a stone cast.

### DENT 262 Preventive Dentistry 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): DENT 164

You will acquire the knowledge and skills required to assess, plan, implement and evaluate self care programs for clients. You will learn how to use effective tobacco cessation strategies. You will learn how to incorporate educational theories to enable others to practice effective self care. You will also learn how to plan table clinics for various age and interest groups.
### DENT 263 Periodontology 1
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** ANAT 163, ANAT 164, MICR 261  
- **Corequisite(s):** PATH 268

Your studies will focus on the structure and function of the periodontium, host response in periodontal disease and etiology and characteristics of the most common forms of periodontal disease. Your studies will focus on the links between periodontal disease and systemic health and concepts related to periodontal therapy. You will acquire this information through a combination of classroom instruction and problem-based learning activities.

### DENT 267 Periodontology 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** DENT 263, DHYG 276

Your studies will focus on planning periodontal therapy for rare and complex forms of periodontal disease and periodontal occlusal trauma. You will plan the use of the most common chemotherapeutics used in periodontal therapy. You will study various periodontal surgical techniques and the post operative care for clients who have had periodontal surgery. You will acquire this information through a combination of classroom instruction, problem-based learning activities and laboratory practice.

### DENT 269 Dental Specialties 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** DHYG 277

You will discuss dental specialties including oral surgery, operative, fixed and removable prosthetics, endodontics and orthodontics. You will also learn about dental hygiene care for geriatric clients and clients with dental implants and esthetic dentistry.

### DENT 282 Dental Specialties
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** DENT 166, DNTL 167, DNTL 168, DNTL 169, DNTL 172, DNTL 173

You will be introduced to prosthodontic, endodontic, oral and maxillofacial surgery, orthodontic and periodontic procedures performed within a general dental practice. You will also discuss dental care for pediatric and geriatric clients. Your studies will focus on the specialized equipment, materials and procedures as it relates to your role as the dental assistant.

### DGTL 100 Digital Graphics Still Imaging
- **Credit Units:** 3.0  
- **Course Hours:** 42.0

Your studies will focus on digital production techniques and processes for creating graphics and still images. The course content includes capture, creation, manipulation, compositing and digital delivery. The material you create may be integrated into a project or digital portfolio.

### DGTL 101 Introduction to Audio
- **Credit Units:** 3.0  
- **Course Hours:** 45.0

You will learn production techniques and processes for audio production. Your studies will include recording, editing, mixing, and final output. You will create material that can be integrated into a project or digital portfolio.

### DGTL 103 Digital Portfolio Development
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** MULT 124, MULT 125, DSGN 103

You will learn what is required to create an interesting and effective digital portfolio.

### DGTL 104 Digital Presentations
- **Credit Units:** 1.0  
- **Course Hours:** 12.0  
- **Equivalent Course(s):** COMM 109

You will learn how to develop and deliver digital presentations.

### DGTL 105 Introduction to Video
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** DGTL 101

You will learn production techniques and processes for basic video production. Your studies will include content on shot-list creation, camera operation and compositional techniques, editing, and output options. You will create material to be integrated into a project or digital portfolio.

### DGTL 106 Digital 1
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Corequisite(s):** DGTL 107

You will be introduced to the basic principles of digital systems. You will use Boolean algebra to describe electronic logic circuits. You will design basic circuits including combinational logic, flip flops, counters, registers, multiplexers, demultiplexers, encoders and decoders.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGTL 107</td>
<td>Digital 1 Lab</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>DGTL 106</td>
<td>You will apply digital principles in a lab setting. You will construct circuits on a breadboard and use a multimeter and logic probe to analyze and troubleshoot them. Your studies will include using computer software to design and simulate circuits.</td>
</tr>
<tr>
<td>DGTL 108</td>
<td>Digital 2</td>
<td>3.0</td>
<td>45.0</td>
<td>DGTL 106, DGTL 107</td>
<td>DGTL 109</td>
<td>You will study microcontroller architecture and basic operation. You will develop and analyze assembly language programs. You will test and debug software using an integrated development environment. You will study analog to digital and digital to analog conversions.</td>
</tr>
<tr>
<td>DGTL 109</td>
<td>Digital 2 Lab</td>
<td>3.0</td>
<td>45.0</td>
<td>DGTL 106, DGTL 107</td>
<td>DGTL 108</td>
<td>You will study microcontroller hardware and peripheral components. You will learn how to interface basic input and output devices with a microcontroller. You will wire-wrap and use a microcontroller system in a hands-on environment.</td>
</tr>
<tr>
<td>DGTL 110</td>
<td>Digital Logic</td>
<td>2.0</td>
<td>30.0</td>
<td>ENGE 120, LABS 120, DGTL 111*</td>
<td></td>
<td>You will examine numbering systems; particularly, binary, hexadecimal and binary coded decimal. You will study logic gates, flip flops, counter, registers, and decoders of various logic families.</td>
</tr>
<tr>
<td>DGTL 111</td>
<td>Digital Logic Laboratory</td>
<td>3.0</td>
<td>45.0</td>
<td>ENGE 120, LABS 120, DGTL 110*</td>
<td></td>
<td>You will study logic gates, flip flops, counter, registers and decoders of various logic families as well as design hardware and software required for various programmable devices.</td>
</tr>
<tr>
<td>DGTL 200</td>
<td>Audio Post Production and Effects</td>
<td>3.0</td>
<td>48.0</td>
<td></td>
<td>DGTL 200CE</td>
<td>Sound is a critical element in a new media production. Computer-based tools have greatly increased the capabilities of the new media developer. You will learn how to create original music (using midi, loops and effects) and use a variety of filters and effects. You will demonstrate your skills by creating a multi-track audio project.</td>
</tr>
<tr>
<td>DGTL 201</td>
<td>Media Codecs and Formats</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>DGTL 201CE</td>
<td>You will develop the skills needed to produce quality compressed audio and video files. You will study compression fundamentals, the factors affecting compression and appropriate compression format selection. You will demonstrate your skills through practical projects.</td>
</tr>
<tr>
<td>DGTL 203</td>
<td>Microcontrollers</td>
<td>4.0</td>
<td>60.0</td>
<td>COMP 111, DGTL 108, DGTL 109</td>
<td></td>
<td>You will learn how to select a microcontroller for a particular application. You will write initialization and driver functions for a microcontroller system using the ‘C’ programming language. You will study serial ports, interrupts, displays and counters. You will work with a microcontroller system in a hands-on environment and use simulation software to develop programs to interface a microcontroller with its peripherals.</td>
</tr>
<tr>
<td>DGTL 204</td>
<td>Advanced Digital</td>
<td>4.0</td>
<td>60.0</td>
<td>DGTL 203, MGMT 102</td>
<td></td>
<td>You will learn how to write firmware drivers in ‘C’ for microcontroller peripherals, such as universal asynchronous receiver/transmitter (UART), electrically erasable programmable read only memory (EEPROM), capture, compare and pulse width modulation (PWM). You will learn how to write Verilog code for a field programmable gate array (FPGA). You will learn how to design a digital system using a Finite State Machine approach. You will work microcontroller and FPGA systems in a hands-on environment and use simulation software to test and verify designs.</td>
</tr>
</tbody>
</table>

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### DGTL 205 Digital Signal Processing
**Credit Units:** 4.0  **Course Hours:** 60.0  
**Prerequisite(s):** DGTL 203  
You will study concepts and applications involving digital signal processing (DSP) and you will gain an understanding of representing signals in the discrete domain. Your studies will introduce you to digital oscillators and digital filters. You will write and test programs using a DSP development system.

### DGTL 221 Digital Logic Circuits
**Credit Units:** 3.0  **Course Hours:** 48.0  
**Prerequisite(s):** ENGE 121, LABS 123  
**Corequisite(s):** ELTR 221  
You will be introduced to digital logic circuit analysis and design including logic gates, flip-flops, memories, logic arrays, number systems, truth table and Karnaugh maps. You will learn analysis and design techniques applied to various types of combinational and sequential logic circuits.

### DGTL 225 Digital Logic
**Credit Units:** 4.0  **Course Hours:** 60.0  
**Prerequisite(s):** ELTR 117, ELTR 118  
**Corequisite(s):** DGTL 226  
You will study the principles of digital logic and digital logic components (such as logic gates and flip-flops). Using number systems, truth tables and Karnaugh maps, you will design and analyze basic logic circuits.

### DGTL 226 Digital Logic Lab
**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** ELTR 117, ELTR 118  
**Corequisite(s):** DGTL 225  
You will illustrate and verify the principles of digital logic that are covered in the theory component of DGTL 225 (Digital Logic).

### DHYG 157 Dental Hygiene Fundamentals 1
**Credit Units:** 2.0  **Course Hours:** 30.0  
**Prerequisite(s):** BIOL 100, BIOL 101, CHEM 102, CHEM 103, ENGL 101, ENGL 102, PSYC 102, PSYC 103, SOCI 171, STAT 100  
**Corequisite(s):** ANAT 163, DHYG 161  
You will be introduced to the principles of body ergonomics. You will demonstrate the use of the dental mirror, a modified pen grasp, neutral wrist, fulcrum placement and moisture control procedures in all areas of the mouth. You will demonstrate the use of the periodontal probe.

### DHYG 161 Health and Safety in the Dental Environment
**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** BIOL 100, BIOL 101, CHEM 102, CHEM 103, ENGL 101, ENGL 102, PSYC 102, PSYC 103, SOCI 171, STAT 100  
**Corequisite(s):** ANAT 163, DHYG 157, MICR 261  
You will be introduced to principles of infection prevention and control and standard precautions in the dental environment. You will compare the decontamination processes of cleaning, disinfecting and sterilizing and describe dental operatory procedures in order to demonstrate current knowledge regarding infection prevention and control. You will discuss medical emergencies in a dental office.

### DHYG 164 Assessment 1
**Credit Units:** 2.0  **Course Hours:** 30.0  
**Prerequisite(s):** BIOL 100, BIOL 101, CHEM 102, CHEM 103, ENGL 101, ENGL 102, PSYC 102, PSYC 103, SOCI 171, STAT 100  
**Corequisite(s):** ANAT 163, ANAT 166, DHYG 161  
You will demonstrate how to measure vital signs. You will study the types of soft tissue lesions that are found in the head and neck area as well as inside the mouth and throat. You will demonstrate an extra oral cancer screening of the head and neck, an intra oral cancer screening of the soft tissues of the mouth and throat, a temporomandibular joint assessment and an orthodontic assessment.
## Course Descriptions

### DHYG 165 Preventive Techniques
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): DHYG 157, DHYG 161, DHYG 256, DHYG 257
Equivalent Course(s):  DNTL 262
You will learn the use and maintenance of dental handpieces, extrinsic stain removal techniques, and the application of topical fluoride and pit and fissure sealants.

### DHYG 200 Introduction to Clinical Dental Hygiene
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  BIOL 100, BIOL 101, CHEM 102, CHEM 103, ENGL 101, ENGL 102, PSYC 102, PSYC 103, SOCI 171, STAT 100
Corequisite(s):  ANAT 163, ANAT 164, ANAT 166, DENT 164, DHYG 157, DHYG 161, DHYG 164, DHYG 256, DHYG 257, MICR 261
You will assist with the provision of clinical dental hygiene therapy, following infection prevention and control protocols. Traits of a health care professional and dental record documentation will also be studied. You will be introduced to critical reflection.

### DHYG 201 Clinical Dental Hygiene 1
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  DHYG 200
Corequisite(s):  DENT 262, DENT 263, DHYG 165, DHYG 258, DHYG 259, DHYG 279, HLTH 262, PATH 268, RDGR 267, RDGR 268
You will begin performing basic, preventive clinical therapy skills in the Dental Hygiene Clinic, including documentation in client records. You will collect general and oral health assessment data and follow care plans to perform preventive clinical therapy. You will follow infection prevention and control protocols and demonstrate professional appearance and conduct required for a clinical setting. You will also learn to identify the results of clinical therapy.

### DHYG 256 Assessment 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  BIOL 100, BIOL 101, CHEM 102, CHEM 103, ENGL 101, ENGL 102, PSYC 102, PSYC 103, SOCI 171, STAT 100
Corequisite(s):  DHYG 157, DHYG 161, DHYG 164, DHYG 257
Equivalent Course(s):  DHYG 163
You will learn to recognize characteristics of healthy gingival tissues and how disease changes these characteristics. You will learn to recognize and record the variations of gingival and periodontal conditions. You will demonstrate the use of the explorer. You will also examine the dentition, demonstrate dental caries detection, and assess caries risk.

### DHYG 257 Dental Hygiene Fundamentals 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  BIOL 100, BIOL 101, CHEM 102, CHEM 103, ENGL 101, ENGL 102, PSYC 102, PSYC 103, SOCI 171, STAT 100
Corequisite(s):  DHYG 157, DHYG 161, DHYG 256
You will describe the function of dental hygiene instruments and be able to recognize their design features. Instrumentation terminology and the rationale for periodontal debridement will be discussed. You will demonstrate the use of sickle scalers, the universal curet and ultrasonic scaling devices. You will also learn how to maintain the sharpness of hand instruments.

### DHYG 258 Care Planning for Clinical Dental Hygiene
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s):  DHYG 257, DHYG 256
Corequisite(s):  DHYG 165, DHYG 201
You will develop an understanding of the dental hygiene process of care as it relates to clinical therapy. You will also be introduced to the skill of determining dental hygiene diagnoses based on client assessment data. Through lectures, labs and group work activities, you will practice developing and presenting dental hygiene care plans. You will also learn how to incorporate evaluation of dental hygiene clinical therapy into a care plan and how to use the outcomes to plan continuing care for clients.

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DHYG 259 Dental Hygiene Fundamentals 3
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  DENT 164
Corequisite(s):  DENT 262, DHYG 165, DHYG 201
You will learn fundamentals of dental hygiene therapeutic and supportive clinical therapy. Through lectures and labs, you will learn how to use and maintain area-specific curets. You will also learn how to plan care for clients with sensitive teeth.

DHYG 269 Dental Hygiene Practice
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s):  DHYG 281
You will study ethics and apply the Canadian Dental Hygienists’ Association’s Code of Ethics to various case studies. You will learn about jurisprudence, focusing on the laws governing the practice of dental hygiene, the Dental Discipline’s Act of Saskatchewan and the Saskatchewan Dental Hygienists’ Association’s By-Laws. You will also learn about the Canadian Dental Hygienists’ Association’s national competencies and various practice options for dental hygienists.

DHYG 275 Dental Hygiene Re-entry
Credit Units: 5.0  Course Hours: 75.0
This course is offered to graduates of CDAC-accredited programs who have been in practice, but allowed their license to lapse or have no current practice experience. Through both didactic and practical activities, participants will be provided an opportunity to update their knowledge and refresh their clinical skills. Graduates will be eligible to register and license as a dental assistant and may perform intraoral procedures as specified by Saskatchewan legislation.

DHYG 276 Clinical Dental Hygiene 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  DENT 262, DENT 263, DHYG 165, DHYG 258, DHYG 259, DHYG 201, DHYG 279, PATH 268, RDGR 267, RDGR 268
Corequisite(s):  DHYG 283
You will gain knowledge and experience in providing preventive and therapeutic clinical therapy to clients in the Dental Hygiene Clinic. You will collect assessment data from clients, identify problems and propose dental hygiene care plans to resolve oral health problems. While following health and safety protocols, you will learn how to provide preventive and therapeutic clinical therapy for clients and measure the results of the therapy. You will begin to use time management strategies and be expected to comply with professionalism and record keeping protocols.

DHYG 277 Clinical Dental Hygiene 3
Credit Units: 10.0  Course Hours: 150.0
Prerequisite(s):  DHYG 276
Corequisite(s):  ANES 262, DENT 165, DHYG 281
You will continue to provide care for clients in the Dental Hygiene Clinic. You will learn how to interpret client assessment data to determine dental hygiene diagnoses and, based on the data, you will develop dental hygiene care plans for clients. While complying with health and safety protocols, you will provide preventive, therapeutic and supportive clinical therapy to clients with moderate to advanced oral health problems. You will learn how to evaluate the effectiveness of clinical therapy and identify continuing care needs for clients. You will manage time and resources and apply professional conduct, communication and critical thinking skills.

DHYG 278 Clinical Dental Hygiene 4
Credit Units: 17.0  Course Hours: 255.0
Prerequisite(s):  DHYG 277
Corequisite(s):  DHYG 282
You will progress towards the competency required for an entry-level dental hygienist who can apply quality assurance standards and protocols to ensure a safe and effective working environment. You will assess the health status of clients and plan strategies to manage clients with health risks. You will establish dental hygiene care plans based on a client-centered approach and the best available resources. You will determine continuing care needs for clients based on the evaluation of the clinical therapy you provided. You will maintain professionalism in all aspects of dental record keeping, communication, management and collaboration with caregivers or other health professionals. You will also self assess your professional practice to help make the transition from student to graduate dental hygienist.

DHYG 279 Clinical Integration 1
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  DHYG 200
Corequisite(s):  DHYG 201
You will prepare for dental hygiene clinical practice as well as further develop radiology skills. You will learn how to use dental office software and how to manage a client pool. You will discuss the principles involved in ethical dental hygiene care.
Course Descriptions

DHYG 281 Clinical Integration 3
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): DHYG 276, DHYG 279
Corequisite(s): DHYG 277
You will learn to create personal plans for continuing competence and professional development. Through seminars and labs, you will review and practice your clinical therapy skills. You will discuss evidence-based decision making as it applies to oral self-care and intervention for tobacco cessation and caries risk. You will further develop instrumentation techniques to accomplish advanced periodontal debridement and practice organizing dental hygiene appointments for clinical therapy. Your studies will explore aging and disabilities in relation to dental hygiene care. You will apply the Canadian Dental Hygienists Association (CDHA) Code of Ethics to clinical practice.

DHYG 282 Clinical Integration 4
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): DHYG 277, DHYG 281
Corequisite(s): DHYG 278
You will prepare for the transition from graduate to professional dental hygiene practice and have the opportunity to mentor other dental program students. Through labs, you will learn how to perform overhang removal and place temporary restorations. You will apply evidence-based decision making to client case studies by developing a plan to manage periodontal therapy.

DHYG 283 Clinical Integration 2
Credit Units: 2.0  Course Hours: 30.0
Corequisite(s): DHYG 276
You will be introduced to pediatric dental hygiene care. You will present a preventive oral health learning activity at a community child care facility. You will learn about behaviour management techniques. In a lab setting, you will further develop your instrumentation skills. You will reflect on your application of preventive and therapeutic clinical therapy skills.

DNTL 167 Infection Prevention & Control
Credit Units: 2.0  Course Hours: 30.0
Your studies will focus on infection prevention and control in the dental office. You will learn to implement policies and procedures necessary to protect yourself, clients and co-workers and to prevent transmission of disease in the dental office.

DNTL 168 Moisture Control
Credit Units: 2.0  Course Hours: 30.0
You will be introduced to a variety of moisture control methods used in dentistry. Working on manikins and peers in the Dental Assisting Clinic, you will apply and remove a dental dam and apply other isolation techniques required for dental procedures. You will learn how to maintain a clear operating field for dental procedures.

DNTL 169 Permanent Restorative Procedures
Credit Units: 4.0  Course Hours: 60.0
Through lectures and practice in a simulated environment, you will develop skills to prepare the operatory and assist with permanent restorative procedures. You will apply topical anesthetic and assist with the administration of local anesthetic. You will also learn to use the Tofflemire TM Matrix system.

DNTL 171 Dental Restorative Materials
Credit Units: 4.0  Course Hours: 60.0
You will study the properties and clinical use of dental materials. The course content includes the manipulation of treatment lining, restorative and luting materials. You will learn to place liners, bases and bonding systems in basic cavity preparations without pulpal exposures. You will apply treatment liners on a manikin in the laboratory setting.

DNTL 172 Clinical Foundations
Credit Units: 3.0  Course Hours: 45.0
You will be working on manikins and peers in the Saskatchewan Polytechnic Dental Assisting Clinic to prepare you to practice ergonomically, use four-handed dentistry, develop instrumentation skills, obtain and record vital sign measurements and assist with an examination appointment. In preparation for client care procedures, you will also follow professional deportment and practice clinic support procedures.

DNTL 173 Fundamentals of Dental Assisting
Credit Units: 3.0  Course Hours: 45.0
You will learn how the dental assistant functions within the dental health team, the workplace and society. You will be introduced to the skills required to be successful in the dental assisting program and profession. In addition, you will learn the importance of consent, privacy and confidentiality in relation to dental records. Using a computerized office system, you will learn how to manage dental records, claims and accounts and schedule appointments. The dental assisting process of care will be introduced to provide a framework for providing quality care for clients.

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## Course Descriptions

### DNTL 174 Dental Communication and Practice Management
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** DNTL 173

You will study communication processes focusing on the dental assistant's role in practice management, marketing the practice, reporting suspected abuse and advocating for special needs clients. You will prepare written employment documentation. You will develop skills to maintain a positive environment, manage telephone calls, process mail and control inventory and supplies.

### DNTL 175 Provisional Crowns
- **Credit Units:** 1.0  
- **Course Hours:** 15.0  
- **Prerequisite(s):** CLIN 110, DENT 180, DENT 282, DNTL 174, DNTL 262, PATH 262, PRAC 115, RDGR 162  
- **Equivalent Course(s):** DENT 261

You will fabricate crown matrices and produce, cement and remove custom provisional crowns on dental manikins.

### DNTL 261 Preventive Dentistry
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** DENT 159, DNTL 262, CLIN 110, CLIN 111*  

You will acquire the knowledge and skills required to assess, plan, implement and evaluate personal oral self care plans for clients in a clinical setting. You will develop a dental assisting care plan specific to client needs with emphasis on oral self care and nutritional recommendations. You will use oral health promotion strategies to meet the needs of a community group.

### DNTL 262 Client Care Procedures
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** APHY 160, DENT 159, DENT 166, DNTL 167, DNTL 168, DNTL 169, DNTL 171, DNTL 172, DNTL 173

You will develop skills to perform clinical dental assisting procedures. You will learn to apply products that remove stain, prevent dental decay, whiten teeth and decrease tooth sensitivity.

### DOOR 120 Door Servicing
- **Credit Units:** 2.0  
- **Course Hours:** 34.0  
- **Prerequisite(s):** SFTY 126*

You will learn how to remove and replace interior trim panels and remove, service and replace window regulators, door locks and associated hardware. You will also learn how to service, remove and replace movable and stationary door glass. The course content includes repairing and replacing door hinges, aligning doors and sealing doors against wind, water and dust leaks.

### DRAW 100 Technical Drawing
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Equivalent Course(s):** DRFT 191

You will learn how to use various drawing instruments to produce drawings and sketches for parts production.

### DRAW 101 Blueprint Reading
- **Credit Units:** 3.0  
- **Course Hours:** 45.0

You will study drafting fundamentals and practice line drawing techniques, applying them to orthographic and isometric projections. You will apply industry symbols and language as it applies to blueprints and specifications. You will produce and interpret basic shop drawings and piping sketches as used at a typical work site.

### DRFT 104 Sketching
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Equivalent Course(s):** DRFT 124

You will receive an introduction to the techniques and standards required to communicate graphically. The course content includes sketching of orthographic and isometric views, geometric constructions, sectional views, lettering, dimensioning and scaling as part of the drafting component.

### DRFT 105 Computer Aided Drafting (CAD)
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Equivalent Course(s):** DRFT 107

You will receive an introduction to the techniques and standards required to communicate graphically. The course content includes a Computer Aided Drafting (CAD) user interface, view control, 2D geometric construction and drawing aids, layers, blocks, text, paper space, model space and plotting.

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Course Descriptions

DRFT 106 Drafting Fundamentals
Credit Units: 3.0  Course Hours: 45.0
Corequisite(s): CADD 120
Equivalent Course(s): DRFT 121
You will be introduced to orthographic drawing. You will practice sketching, geometric construction, orthographic projections, dimensioning, sectional views and descriptive geometry.

DRFT 107 Computer Aided Drafting (CAD)
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s): DRFT 105
You will be introduced to techniques and standards required to communicate graphically. You will develop skills in a Computer Aided Drafting (CAD) user interface, view control, 2D geometric construction and drawing aids, layers, blocks, text, paper space, model space and plotting.

DRFT 108 Construction Drawings and Field Sketching
Credit Units: 1.0  Course Hours: 15.0
This course will provide the skills required to read, understand and make calculations based on construction drawings. Provide skills to create professional sketches and notes for a geomatics member.

DRFT 109 Architectural Drafting: Fundamental Techniques
Credit Units: 3.0  Course Hours: 45.0
You will study the fundamentals of architectural drafting using manual techniques. You will be introduced to architectural drafting conventions while creating multi-view and single-view drawings.

DRFT 110 Architectural Drafting: Computer-Aided Techniques 1
Credit Units: 2.0  Course Hours: 30.0
You will acquire fundamental skills required to operate AutoCAD. The course focuses on architectural applications of the software.

DRFT 111 Architectural Drafting: Computer-Aided Techniques 2
Credit Units: 2.0  Course Hours: 30.0
You will acquire fundamental skills required to operate Autodesk Revit. You will create a partial set of working drawings for a single-family residence using fundamental procedures in Revit. This course serves as an introduction to Building Information Modelling (BIM) techniques.

DRFT 112 Drawing Standards
Credit Units: 3.0  Course Hours: 45.0
You will learn the fundamentals of drawing management including drawing types, symbols, red filing, updating and working copies.

DRFT 113 Drafting and Blueprint Reading
Credit Units: 2.0  Course Hours: 30.0
You will develop basic working drawings of small part assemblies by taking measurements, documenting relevant information, and developing sketches. You will construct parts and assemblies from your completed working drawings.

DRFT 174 Drafting Principles
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): CAD 181*
Corequisite(s): CAD 181
Equivalent Course(s): DRFT 106, DRFT 181
You will learn the basic theory and skills needed to generate graphic representation of an idea, concept or entity. You will use engineering lettering and geometric construction, prepare engineering graphs with computer software, use sketching methods, use basic descriptive geometry and its applications, and develop orthographic drawings, dimensioning, pictorial drafting, auxiliary views and sectional views. You will also construct engineering technical drawings using the orthographic projection method with an introduction to piping drawings.

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### DRFT 175 Mechanical Drafting

Credit Units: 5.0  
Course Hours: 80.0  
Prerequisite(s):  CAD 181, DRFT 174  
Equivalent Course(s):  DRFT 182, DRFT 205

The course builds on the skills you developed in DRFT 174 (Drafting Principles). You will acquire theory and facility in 2-D drawings of threaded fasteners, welding symbols and geometric dimensioning and tolerancing. You will complete detail drawings and assembly drawings that combine the majority of the basic concepts into one project. Some structural drawings will allow you to focus on more practical problems.

### DRFT 176 Drafting Project

Credit Units: 3.0  
Course Hours: 52.0  
Prerequisite(s):  DRFT 175  
Equivalent Course(s):  DRFT 182

Your studies will focus on piping drawings. You will learn how to use the different modules of a 3-D piping software program. You will use the program to produce piping and instrumentation drawings, orthographic piping drawings and isometric piping drawings. You will begin a piping project that will be used in FMEC 288 (Fluid Mechanics) and INST 288 (Instrumentation and Controls).

### DRFT 177 Mechanical Drafting

Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s):  CAD 181, DRFT 174

You will apply theoretical concepts from mechanics of materials to mechanical models. Drafting principles will be applied to applications such as mold and sheet metal design, stress and strain analysis and thermodynamic analysis to predict the performance of mechanical systems.

### DRFT 183 Drafting and Blueprint Reading

Credit Units: 4.0  
Course Hours: 60.0

You will acquire sufficient drafting and blueprint reading skills to produce acceptable shop drawings. You will be able to read all shop drawings for fabricating and maintaining industrial equipment. You will practice fabrication to complete the Arbor Press Project. Wherever possible, drafting courses will be modified to meet the specific requirements of the trade.

### DRFT 189 Electronic Drafting

Credit Units: 2.0  
Course Hours: 30.0

You will use electronic simulation and mechanical CAD software to prepare documentation of electronic circuits and systems.

### DRFT 205 Mechanical Drafting Fundamentals

Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s):  DRFT 106  
Corequisite(s):  CADD 211

You will be introduced to mechanical drafting and apply the skills and tools you learned in previous computer aided drafting (CAD) courses. You will practice dimensioning and develop sectional views. You will create 2-D part and assembly drawings. As well, you will use sketching and precision measuring instruments to produce a full set of mechanical drawing sets. You will use 3D modelling tools and documentation methods in your project.

### DRFT 208 Civil Drafting 2

Credit Units: 2.0  
Course Hours: 30.0  
Prerequisite(s):  CADD 124

Your studies will focus on the surveying components and tool space used in modern civil design CAD software. The course covers road plans, civil engineering drawings, survey data adjustment and the use of automated line work techniques.

### DRFT 209 Building Service Drafting

Credit Units: 3.0  
Course Hours: 45.0  
Corequisite(s):  CADD 211

You continue to develop your drafting skills to create 2D drawings. You will be introduced to the National Building Code of Canada (NBCC). Your drafting assignments will focus on architectural elevations, building layouts, utility layouts, wiring diagrams and heating, ventilation and air conditioning (HVAC) control schematics.

### DRFT 210 Architectural Drafting: Computer-Aided Techniques 3

Credit Units: 1.0  
Course Hours: 15.0  
Prerequisite(s):  DRFT 224

You will expand your skills using Revit for architectural application. You will use the software to create architectural drawings commonly found in commercial sets. This course allows you to practice your Building Information Modelling (BIM) skills.
### DRFT 220 Architectural Drafting: Residential Working Drawings 1
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** CNST 122, CODE 100, DRFT 110  
- **Corequisite(s):** CNST 221, CODE 101  
You will learn to produce architectural drawings for single-storey residential construction projects. Using AutoCAD, you will create construction drawings based on the typical requirements for residential permit sets.

### DRFT 224 Architectural Drafting: Residential Working Drawings 2
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** CNST 221, CODE 101, DRFT 220  
You will produce residential working drawings using computer drafting software, based on preliminary design data, manufacturers' literature and the National Building Code of Canada (NBC). Your focus will be on a custom-designed, two-storey house.

### DRFT 233 Architectural Drafting: Commercial Working Drawings
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** CNST 232, CODE 201, DRFT 210  
You will produce a partial set of working drawings for a commercial building using Revit. Your drawings will be based on preliminary design data, manufacturers' literature and the National Building Code of Canada (NBC).

### DRFT 234 Architectural Drafting: Commercial Working Drawings
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** CODE 201, DRFT 210, DSGN 234  
- **Corequisite(s):** CODE 300  
You will produce a partial set of working drawings for a commercial building using Revit. Your drawings will be based on preliminary design, design data, manufacturers' literature and the National Building Code of Canada (NBC).

### DRFT 290 Basic Drafting
- **Credit Units:** 5.0  
- **Course Hours:** 80.0  
- **Prerequisite(s):** DRFT 390  
- **Equivalent Course(s):** DRFT 174, DRFT 181, GRPH 190  
You will integrate non-CAD computer software with CAD software. You will practice the basic concepts of engineering graphics. You will sketch and use AutoCAD. You will use orthographic and isometric projection for shape description. You will draw sectional, auxiliary and partial views. You will develop skill in dimensioning and tolerancing using engineering drawing.

### DRFT 291 Advanced Drafting
- **Credit Units:** 5.0  
- **Course Hours:** 80.0  
- **Prerequisite(s):** DRFT 290, DRFT 391  
Your Semester 1 introductory drafting skills will serve as a foundation for this course. You will learn how to prepare a complete set of working drawings on the CAD system. You will become familiar with standard drafting practices and symbols used in a number of different engineering fields.

### DRFT 390 CAD Drafting 1
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Equivalent Course(s):** DRFT 390CE  
You will study the basic concepts of computer assisted drafting. You will learn how to use the AutoCAD user interface as it pertains to two dimensional CAD drawings. The course content includes drawing set-up, coordinate systems, drawing tools, editing commands, display options, layers, colors, line types, text, basic dimensioning and plot commands.

### DRFT 391 CAD Drafting 2
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Prerequisite(s):** DRFT 390  
- **Equivalent Course(s):** CAD 181, DRFT 391CE  
You will study advanced concepts of computer assisted drafting. The course content includes blocks, XREF's, plotting, dimensioning, advanced editing and drawing techniques and an introduction to 3D drafting.

### DRFT 392 CAD Drafting 3
- **Credit Units:** 1.0  
- **Course Hours:** 15.0  
You will study 3D drafting in AutoCAD. The course content includes solid features, solid editing and User Co-ordinate System. You will also study the generation of assemblies, sections and layouts for plotting.
Course Descriptions

**DRTR 103 Bearings, Seals, Clutches and Transmissions**
Credit Units: 4.0    Course Hours: 60.0  
Equivalent Course(s): DRTR 170  
You will learn how to remove, inspect and install various seals and bearings. You will also learn how to diagnose and repair clutches. The course content includes the operation, diagnosis and repair of manual transmissions.

**DRTR 104 Differentials and Final Drives**
Credit Units: 4.0    Course Hours: 60.0  
Prerequisite(s): DRTR 103*  
Equivalent Course(s): DRTR 171  
You will learn how to diagnose and repair drive lines and differentials. You will also study and repair planetary final drive and steerable drive axle systems.

**DRTR 105 Tracks and Undercarriage**
Credit Units: 4.0    Course Hours: 60.0  
Equivalent Course(s): DRTR 172  
You will study final drives, standard and planetary gear reductions and undercarriage in crawler tractors and wheeled machines. You will also learn basic rigging and hoisting principles.

**DRTR 106 Drivetrain Introduction Theory**
Credit Units: 2.0    Course Hours: 30.0  
You will learn procedures to properly determine serviceability of various seals and bearings. Proper removal and installation techniques for bearings and seals will also be discussed. Clutch types, operation, adjustment and removal procedures will be discussed. You will study single countershaft transmission diagnosis and overhaul procedures.

**DRTR 107 Drivetrain Introduction Shop**
Credit Units: 2.0    Course Hours: 30.0  
You will remove, inspect and replace seals and bearings. Clutches of various types will be removed, evaluated and reinstalled. Adjustment procedures for various clutches will be performed. Manual transmission and differentials will be overhauled.

**DRTR 108 Drivetrain Intermediate Theory**
Credit Units: 2.0    Course Hours: 30.0  
You will study various types of gear sets, ratios, as well as procedures for correction gear contact patterns, preloading and adjusting bearings in differential assemblies. Inspection and set up procedures for planetary final drive systems will be covered. Procedures for determining the serviceability of universal joints and drive line angles will be covered.

**DRTR 109 Drivetrain Intermediate Shop**
Credit Units: 2.0    Course Hours: 30.0  
You will service and overhaul differentials. Various types of planetary drive systems will be evaluated. Driveline components and operational angles will be evaluated.

**DRTR 110 Driveline Systems**
Credit Units: 4.0    Course Hours: 60.0  
You will learn operation, diagnosis and repair of wheels, tires, bearings, seals, driveshafts and axles. The course content includes the evaluation and repair of tire pressure monitor systems.

**DRTR 150 Tracks and Undercarriage**
Credit Units: 4.0    Course Hours: 60.0  
You will study final drives, standard and planetary gear reductions and undercarriage in crawler tractors and wheeled machines. You will also learn basic rigging and hoisting principles.

**DRTR 151 Bearings, Seals, Clutches and Transmissions**
Credit Units: 4.0    Course Hours: 60.0  
You will learn how to remove, inspect and install various seals and bearings. You will also learn how to diagnose and repair clutches. The course content includes the operation, diagnosis and repair of manual transmissions.

**DRTR 152 Differentials and Final Drives**
Credit Units: 4.0    Course Hours: 60.0  
You will learn how to diagnose and repair drive lines and differentials. You will also study and repair planetary final drive and steerable drive axle systems.
### Course Descriptions

#### DSGN 101 Elements and Principles of Design 1
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Courses:** DSGN 101CE, GAP 340, GRPH 125, GRPH 260  
- You will study basic design theory in the context of visual communications. You will learn about design tools and materials, and design processes including critiques and drawing. Using the formal elements of design, you will develop practical design skills.

#### DSGN 103 Web Site Design Principles
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** MULT 120*  
- **Equivalent Course(s):** DSGN 103CE  
- You will learn how to integrate the knowledge and skills from other courses to design, develop, and test effective web sites. You will also learn to analyze and critique existing web sites for usability and effectiveness. Your web analysis will include testing for usability and accessibility.

#### DSGN 104 Media Aesthetics 1
- **Credit Units:** 3.0  
- **Course Hours:** 40.0  
- **Prerequisite(s):** DSGN 101  
- You will learn how to orient your visual expressions within the parameters of a particular media. Two-dimensional perceptions are critical to the production of screen media. You will develop a familiarity with this new field of aesthetic expression.

#### DSGN 105 Structuring Screen Space
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** DSGN 101  
- You will learn to orient your visual expressions within the parameters of a particular media. Two-dimensional perceptions are critical to the production of screen media. You will develop familiarity with this field of aesthetic expression.

#### DSGN 106 Interface Design
- **Credit Units:** 3.0  
- **Course Hours:** 38.0  
- **Prerequisite(s):** DSGN 101  
- **Equivalent Course(s):** DSGN 106CE  
- You will learn the basics of interface design. You will also practice creative problem solving by designing interactive environments.

#### DSGN 107 Transmission and Distribution
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- You will study the nature of faults and their clearing. You will also study the principles of symmetrical components applied to the problem of fault current calculation in the case of three-phase symmetrical, line-to-line and line-to-ground faults.

#### DSGN 121 Design Studio: Fundamentals
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Equivalent Course(s):** GRPH 121  
- You will learn fundamental graphic skills and graphic design concepts. You will learn how to apply these skills to graphic presentations.

#### DSGN 200 Media Aesthetics 3
- **Credit Units:** 3.0  
- **Course Hours:** 40.0  
- **Prerequisite(s):** VDEO 101  
- You will study light and shadows and how they affect perception. You will learn about the deliberate use of lighting techniques for specific communication purposes.

#### DSGN 201 Sound Design
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** AUDI 202*  
- You will study the function of sound and various factors that contribute to designing sound for media. You will study methods and approaches to sound as implemented by prominent sound designers. You will learn to discern subtle details in your listening practices.

#### DSGN 202 User Interface Design
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** DSGN 103  
- **Equivalent Course(s):** DSGN 202CE  
- You will learn the basics of interface (UI) design. You will also practice creative problem solving by designing interactive environments. You will study the principles of interactivity, complexity and usability. You will develop the skills needed for creative and effective interfaces.
Course Descriptions

DSGN 203 Typography
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): GRPH 100
Equivalent Course(s): DSGN 203CE
You will study typographic terminology and learn to identify fonts and the families to which they belong. You develop an appreciation for the important role of typography in design. You will learn how to use type as a design element and create unique letters.

DSGN 204 Design Processes and Critical Studies
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): DSGN 101*
Equivalent Course(s): DSGN 204CE
You will develop exceptional graphic solutions based on solid analysis and design. You will investigate essential design processes and techniques. You will develop critical thinking and analytical skills. You will demonstrate your skills by creating appropriate solutions to design challenges.

DSGN 205 Contemporary Graphic Design
Credit Units: 4.0    Course Hours: 60.0
Equivalent Course(s): DSGN 205CE
You will develop an appreciation for innovation in the fields of media and art which are inspired by technological and societal change. You will learn to adapt to new methods and the ongoing redefinition of artistic trends. You will study major contemporary trends in new media design. You will research trendsetters and their work. You will create works in a variety of contemporary styles.

DSGN 206 Methods of Graphic Design
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): DSGN 204, GRPH 100
You will learn the creative approaches, techniques, strategies and processes used to create meaningful images that communicate ideas. The course content is drawn from the American Institute of Graphic Artists (AIGA) competencies of graphic design - hierarchy, typography, aesthetics, and composition.

DSGN 222 Lighting Design
Credit Units: 2.0    Course Hours: 32.0
You will study light and sight, factors affecting seeing, and lamp and luminaire characteristics. Your studies will focus on the application of the zonal cavity method of calculation to residential, commercial buildings and industrial plants. Methods to conserve energy will be emphasized. You will practice your skills by designing indoor and outdoor lighting systems.

DSGN 225 Transmission and Distribution
Credit Units: 3.0    Course Hours: 48.0
Prerequisite(s): ENGE 220
Your studies will focus on a review of the solution of balanced and unbalanced circuits and the principles involved in symmetrical components. You will study the nature of faults and their clearing. You will also study the principles of symmetrical components applied to the problem of fault current calculation in the case of three-phase symmetrical, line-to-line and line-to-ground faults.

DSGN 227 Electrical Systems Design
Credit Units: 3.0    Course Hours: 48.0
Prerequisite(s): ENGE 201, WIRE 100
Corequisite(s): DSGN 229
You will study the principles of electrical design and regulations governing electrical installations as stipulated by the Canadian Electrical Code (CEC). Your studies of electrical distribution design for residential, commercial, institutional and industrial occupancies will focus on the electrical service, distribution, feeders, load centers, branch circuits, protection devices and related equipment used on the job.

DSGN 229 Transmission Design
Credit Units: 3.0    Course Hours: 48.0
Prerequisite(s): COAP 232, DSGN 225
You will be introduced to the design and distribution of transmission lines. You will study route selection, structure design, sag calculations and charts, templates, staking sheets, crossings and cost estimation.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSGN 231</td>
<td>Design Studio: Residential</td>
<td>4.0</td>
<td>60.0</td>
<td>DSGN 121</td>
<td>GRPH 122</td>
</tr>
<tr>
<td></td>
<td>You will learn the fundamentals of the design process. You will use that process to design a house and present your design in a professional format.</td>
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<tr>
<td>DSGN 232</td>
<td>Design Studio: Institutional</td>
<td>4.0</td>
<td>60.0</td>
<td>DSGN 231</td>
<td>GRPH 220</td>
</tr>
<tr>
<td></td>
<td>You will use the design process to plan and design an institutional project that meets specialized client needs. You will present and critique your design in a professional setting.</td>
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<tr>
<td>DSGN 234</td>
<td>Design Studio: Commercial Mixed Occupancy 1</td>
<td>4.0</td>
<td>60.0</td>
<td>DRFT 224, DSGN 232, CODE 200</td>
<td>CODE 201</td>
</tr>
<tr>
<td></td>
<td>You will develop the programme and concept for a commercial mixed-occupancy interior. You will also visually communicate design ideas while advancing your presentation skills. You will use manual techniques and digital imaging software to enhance presentations, create graphic layouts and exploit multiple types of media.</td>
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<tr>
<td>DSGN 235</td>
<td>Design Studio: Commercial Mixed Occupancy 2</td>
<td>4.0</td>
<td>60.0</td>
<td>CODE 201, DSGN 234</td>
<td>DRFT 234</td>
</tr>
<tr>
<td></td>
<td>You will fully develop a final design proposal for a commercial mixed-occupancy interior, based on your preliminary design. You will prepare and present the proposal in a professional setting.</td>
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<tr>
<td>DSGN 280</td>
<td>Mechanical Design 1</td>
<td>3.0</td>
<td>48.0</td>
<td>SHOP 186, ENG 192, ENGM 180</td>
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<tr>
<td></td>
<td>You will learn the techniques of design, analysis and selecting various machine components (including belt and chain drive components, wire rope, fasteners, bolted connections, welded joints and combined stresses). You will also learn traditional design methods and then use computer solutions extensively to augment the design process.</td>
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<tr>
<td>DSGN 282</td>
<td>Mechanical Design 2</td>
<td>5.0</td>
<td>80.0</td>
<td>DSGN 280</td>
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<tr>
<td></td>
<td>Building on the skills you developed in DSGN 280 (Mechanical Design 1), you will learn the techniques of design, analysis and selecting various machine components. You will study bearings, shafts, springs, couplings, gears, clutches, brakes and cams. You will examine traditional design methods and then use computer solutions extensively to augment the design process. The combined material from DSGN 280 (Mechanical Design 1) and this course will be directed toward CAD 285 (Industry Design Project).</td>
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<tr>
<td>DSGN 283</td>
<td>Mechanical Design Project</td>
<td>2.0</td>
<td>30.0</td>
<td>DSGN 282</td>
<td>DRFT 234</td>
</tr>
<tr>
<td></td>
<td>You will learn how to develop and evaluate several components in the design of a machine. You will select and integrate bearings, shafts, springs, couplings, gears, clutches, brakes and cams based on the design knowledge you acquired in DSGN 280 (Mechanical Design 1) and DSGN 282 (Mechanical Design 2).</td>
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<tr>
<td>ECE 100</td>
<td>Introduction to Early Childhood Education</td>
<td>3.0</td>
<td>45.0</td>
<td>ECE 100CE</td>
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<td></td>
<td>You will study the values, roots and the practice of early childhood education from an historical and global perspective. A holistic view of the child (including emotional, social, cognitive, creative, spiritual and physical development) will be emphasized. The course provides an introduction to a variety of early childhood education models that are seen in Canada and in Saskatchewan. Building on this foundation, you will be introduced to the Project Approach and Emergent/Negotiated Curriculum as a basis of planning curriculum and the various ways they are implemented.</td>
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</table>
**ECE 101 Roles and Values of the Early Childhood Educator**  
Credit Units: 3.0  Course Hours: 40.0  
Equivalent Course(s): ECE 101CE  
The course focuses on the supporting values of the early childhood educator. You will examine the common values that include respect for human dignity and diversity. You will demonstrate through classroom and practical experience, responsibility, caring, compassion and teamwork. These are qualities that form the basis for personal and professional ethics of an early childhood educator.

**ECE 102 Programming for Creative Arts Development**  
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): ECE 100, (HUMD 100 or HUMD 181), ECE 181  
Equivalent Course(s): ECE 102CE  
The course focuses on the expressive media of visual arts, music, and creative movement. You will examine the role of the creative arts in an early childhood education program. You will receive instruction and practice in the arts and in planning curriculum that is responsive to children’s interests in artistic expression. Your studies will examine how programming for creative arts is accommodated through the Project Approach.

**ECE 103 Programming for Language Development**  
Credit Units: 3.0  Course Hours: 40.0  
Prerequisite(s): ECE 100, (HUMD 100 or HUMD 181), ECE 181  
Equivalent Course(s): ECE 103CE, ECE 183  
You will examine the development of language and receive instruction and practice in planning curriculum to respond to the language needs of children. You will explore language play, language games, creative drama, poetry, story reading and storytelling. Your studies will help you recognize quality in children’s literature. You will examine the use of the Project Approach in facilitating language and literacy development.

**ECE 104 Programming for Cognitive Development**  
Credit Units: 3.0  Course Hours: 40.0  
Prerequisite(s): ECE 100, (HUMD 100 or HUMD 181), ECE 181  
Equivalent Course(s): ECE 104CE, ECE 185  
You will study the cognitive development of children and acquire skills in planning curriculum to meet the cognitive needs of children. Utilizing a holistic approach, you will be introduced to the cognitive processes of young children. You will plan curriculum that is developmentally appropriate and design effective learning environments. The curriculum strategies include creating invitations to learning, experiences with sensory materials such as sand, water and blocks and the incorporation of mathematical and scientific concepts into daily activities. Your studies will examine how programming for cognitive development is accommodated through the Project Approach.

**ECE 105 Programming for Social and Emotional Development**  
Credit Units: 3.0  Course Hours: 40.0  
Prerequisite(s): ECE 100, (HUMD 100 or HUMD 181), ECE 181  
Equivalent Course(s): ECE 105CE  
The course will examine the development of social and emotional skills in early childhood. You will receive instruction and practice in planning curriculum to meet the social and emotional needs of children. You will explore how children respond to different social and emotional situations and the role of the early childhood educator in facilitating healthy social and emotional development.

**ECE 106 Role of Play in Early Childhood Education**  
Credit Units: 3.0  Course Hours: 40.0  
Equivalent Course(s): ECE 106CE, HUMD 182  
You will learn about the role of play in the development of skills and abilities of young children. You will focus on the value of play in early childhood development programming and the role of the early childhood educator in expanding the play opportunities for children.
Course Descriptions

ECE 142 Health, Safety and Nutrition
Credit Units: 3.0  Course Hours: 40.0
Equivalent Course(s):  ECE 142CE
Your studies will focus on creating environments and practices that contribute to the health, safety, and nutritional needs of children. You will study the physical development of children. You will also receive information that will assist you in identifying and addressing health and safety issues including abuse and neglect.

ECE 181 Observation of Children
Credit Units: 3.0  Course Hours: 40.0
Equivalent Course(s):  ECD 122, ECE 181CE
The course combines theory and practical application to assist you in developing skills in observing and recording the behaviour of children. You will learn how to organize observations and document children's interests, learning and development.

ECE 200 Play Environments
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  PRAC 181 or PRAC 105
Equivalent Course(s):  ECE 200CE
The course is a continuation of Play in Early Childhood Education. You will use play theory to plan developmentally appropriate programs, plan indoor play environments, and to examine outdoor play environments.

ECE 201 Program Planning for Early Childhood Education Programs
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PRAC 181 or PRAC 105
Equivalent Course(s):  ECE 201CE
The course is a culmination of the diploma program. You will use information on developmentally appropriate practice, child development, and holistic planning to plan curriculum for young children. You will incorporate information on children with diverse needs, multi-age groups, and diverse cultures to plan both individual and group programs.

ECE 202 Programming for Infants and Toddlers
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PRAC 181 or PRAC 105
Equivalent Course(s):  ECE 202CE, ECE 225
You will examine the development of infants and toddlers in more specific detail. Using that information you will plan programs including activities and environments that will encourage the holistic development of infants and toddlers.

ECE 220 Anti-Bias Education in Early Childhood
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  PRAC 181 or PRAC 105
Equivalent Course(s):  ECE 220CE
Your studies will focus on the issues related to providing respectful and relevant early learning and child care for all children and families. Students will have opportunities to examine their personal beliefs and values as they relate to the planning and implementation of an anti-bias curriculum for children. You will acquire the knowledge and develop the skills needed to build partnerships with families while respecting their diverse needs.

ECE 221 Observation and Assessment
Credit Units: 3.0  Course Hours: 40.0
Prerequisite(s):  PRAC 181 or PRAC 105
Equivalent Course(s):  ECE 221CE
You will learn advanced observation techniques and be introduced to common assessment tools. Using information from observation and assessment tools, you will develop individualized programs for children.

ECE 226 Programming for School Age Children
Credit Units: 3.0  Course Hours: 30.0
Prerequisite(s):  PRAC 181 or PRAC 105
Equivalent Course(s):  ECE 226CE
You will examine the characteristics of school age children and the program activities that may be designed to accommodate them. You will also discuss the role of the caregiver and the child care issues distinctive to this age.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 100</td>
<td>Economics</td>
<td>5.0</td>
<td>80.0</td>
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<tr>
<td>ECON 120</td>
<td>Microeconomics</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>ECON 121</td>
<td>Macroeconomics</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>ECON 200</td>
<td>Introduction to Agricultural Economics</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>ECON 280</td>
<td>Economics</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>ECON 400</td>
<td>Micro and Macro Economics</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>ECRD 180</td>
<td>Electrocardiography</td>
<td>3.0</td>
<td>45.0</td>
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</tbody>
</table>

**ECON 100 Economics**
Credit Units: 5.0  Course Hours: 80.0
Equivalent Course(s): ECON 100CE

You will study the foundations of macroeconomics. Your studies will include an introduction to the economic principles of scarcity, opportunity costs, demand and supply, and comparative market structures. You will then focus on learning about the major macroeconomic elements impacting our economy. This includes Gross Domestic Product, unemployment and inflation, government spending and taxation, the Canadian banking system, foreign trade and other key macroeconomic variables.

**ECON 120 Microeconomics**
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s): ECON 120CE, RT 191

Your studies will focus on an introduction to microeconomics. You will learn how individuals, businesses and governments make decisions in a world of scarce resources and unlimited wants. You will study how production and consumption choices are made in a market economy. You will learn to analyze economic fundamentals in supply, demand, costs, response to price changes, and income distribution. Finally, you will gain an understanding of the most common market structures along with their price and output determination in the Canadian economic marketplace.

**ECON 121 Macroeconomics**
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): ECON 120

This course will help you to understand how our economy works at a national level, along with the problems and choices faced by any modern economy. You will learn how to measure and interpret the state of the economy with macroeconomic variables such as GDP, inflation, unemployment, money supply, and interest rate. You will study how monetary policy (money supply and interest rates) and fiscal policy (government spending and taxation) are used to smooth economic fluctuations. You will examine foreign trade and exchange rates in a global economy.

**ECON 200 Introduction to Agricultural Economics**
Credit Units: 3.0  Course Hours: 45.0

You will explore the economics of the food, fibre, and fuel industries. You will analyze consumer and business behaviour under various market and regulatory conditions, as well determine changes to supply and demand curves. Both microeconomic and macroeconomic factors will be defined and discussed in relation to agricultural value chains.

**ECON 280 Economics**
Credit Units: 2.0  Course Hours: 30.0

You will be introduced to Economic Theory. You will study introductory economic concepts, operations of a market (with an examination of demand and supply), and the role of government in a market economy related specifically to the hospitality industry, government in Canada, economic indicators, examination of money and the Canadian banking system. You will also be introduced to microeconomics with particular emphasis on types of competition related to the hospitality industry.

**ECON 400 Micro and Macro Economics**
Credit Units: 3.0  Course Hours: 45.0

You will study the basics of microeconomics and macroeconomics. Your studies will include economic theory, problems and solutions. You will gain an understanding in scarcity, opportunity costs, demand and supply; as well as how various market structures determine output and price. From a macro perspective you will learn about the role of the government's spending and taxation, the Canadian banking system, foreign trade and other key macroeconomic variables.

**ECRD 180 Electrocardiography**
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): ECRD 180CE

Your studies will focus on the theoretical aspects required to perform electrocardiograms. The course content includes recording techniques, recognizing artifacts and identifying remedies to minimize them, and recognizing basic cardiac arrhythmias.

**EDUC 160 Principles of Education**
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): HLTH 163
Equivalent Course(s): EDUC 160CE

Your study will focus on the basic goal of education and the role of selfmanagement in diabetes care. You will review the principles of good communication and how to assess your clients' readiness to learn. You will be introduced to the stages of behaviour change that help guide the education process.

Register online at saskpolytech.ca or call 1-866-467-4278  Sask Polytech Calendar 2019-2020  314
# Course Descriptions

## EDUC 180 Supporting Instruction I
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): EDUC 180CE

You will be introduced to individual learning styles and other factors that influence learning differences in students. You will learn strategies that facilitate student learning including instructional approaches, classroom management, and effective observation and recording.

## EDUC 181 Supporting Instruction 2
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): EDUC 180  
Equivalent Course(s): EDUC 181CE

You will be provided with an overview of the Saskatchewan curriculum with a focus on language arts, technology and basic mathematics. You will expand your knowledge of strategies to provide educational support under a teacher's supervision.

## EDUC 200 Foundations in Adult Education
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): SFCP 600

You will focus on theoretical aspects of the adult teaching and learning experience. You will examine your personal philosophy of teaching and how that is reflected in your instructional practice. In your studies you will examine principles of adult education, instructional methods and their impact on the learning environment.

## EDUC 201 Adult Learning
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): EDUC 200  
Equivalent Course(s): SFCP 601

You will examine concepts and theories that underpin the foundation and philosophy of adult education and training. Your studies will focus on the role of lifelong learning and the relationship of adult physical, psychological, cognitive, and socio-cultural development to adult learning. You will link theory and practice by composing a strategy to integrate adult learning theory and principles into your teaching practice.

## EDUC 202 Instructional Strategies in Adult Education
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): EDUC 200

You will integrate adult learning theory and principles into your instructional practice. Your studies will focus on using instructional strategies to create, present and analyze lessons for face-to-face (F2F), blended and online delivery. You will discuss and practice communication techniques with your colleagues, as well as foster a reflective practice that informs teaching and learning.

## EDUC 203 Curriculum Design
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): EDUC 200  
Equivalent Course(s): SFCP 603

You will develop skills related to the design and development of curriculum. Your studies will focus on completing a needs assessment to identify curriculum changes, then designing the learning outcomes, instructional strategies and student assessment to meet this need. You will analyze and design a curriculum project related to your program area. The course content provides an introduction to the processes used to evaluate curriculum.

## EDUC 204 Educational Technology
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): EDUC 200  
Equivalent Course(s): SFCP 604

You will examine the use of technology in the educational process. Your studies will help you acquire skills using a variety of educational technology tools along with evaluating their effectiveness in the classroom. You will study blended learning environments and design a module of online content in a learning management system. You will examine emerging trends in educational technology and explore their relevance to your program.

## EDUC 205 Student Evaluation
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): EDUC 200  
Equivalent Course(s): SFCP 602

You will explore evaluation and assessment of students in adult education environments. Your studies will encompass strategies for planning and designing assessment tools to evaluate student learning. You will construct and analyze evaluation tools to measure knowledge and skills.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 206</td>
<td>Teaching Portfolio Development</td>
<td>3.0</td>
<td>45.0</td>
<td>EDUC 200</td>
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<tr>
<td></td>
<td>You will develop your teaching portfolio driven by your teaching philosophy. Your studies will help you select, reflect and organize portfolio evidence around instructor competency standards. You will share your assembled teaching portfolio and submit a plan for professional development and portfolio maintenance. In this course you will learn how to establish and maintain a mentorship relationship.</td>
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<tr>
<td>EDUC 207</td>
<td>Educational Leadership</td>
<td>3.0</td>
<td>45.0</td>
<td>EDUC 200</td>
<td>SFCP 606</td>
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<tr>
<td></td>
<td>You will examine educational leadership, leadership theories and styles and how they can be applied to the educational setting. Your studies will consider challenges in leadership and the effect on education. Culture of the organization and the classroom will be discussed as it relates to leadership. You will explore the historical perspective and future trends, working toward a personal philosophy of leadership.</td>
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<tr>
<td>EDUC 260</td>
<td>The Education Process</td>
<td>3.0</td>
<td>45.0</td>
<td>HLTH 267</td>
<td>EDUC 260CE</td>
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<td></td>
<td>You will utilize the principles of adult learning, as you study the characteristics of adult learners and the approaches used to enhance learning and healthy self-care practices. You will also use the Staged Model of Change in Practice to explore the behaviours that affect learning and your clients' readiness to learn.</td>
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<tr>
<td>ELCT 102</td>
<td>Electrical Basics Theory</td>
<td>2.0</td>
<td>30.0</td>
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<td></td>
<td>You will study the fundamentals of electricity and magnetism, Ohm’s law and the use of analog and digital meters. Various faults and their effects on circuit operation will be discussed. You will study battery construction, operation, as well as testing and servicing procedures.</td>
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<tr>
<td>ELCT 103</td>
<td>Electrical Basics Shop</td>
<td>2.0</td>
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<tr>
<td></td>
<td>You will practice diagnosing faults in electrical circuits using digital meters. Wet cell batteries will be tested and serviced as required.</td>
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<tr>
<td>ELCT 104</td>
<td>Electrical Starting and Charging Systems Theory</td>
<td>2.0</td>
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<td></td>
<td>You will study the fundamentals of a cranking system as well as the control circuits and components. Charging system fundamentals as well as control systems will also be discussed.</td>
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<tr>
<td>ELCT 105</td>
<td>Electrical Starting and Charging Systems Shop</td>
<td>2.0</td>
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<td>You will disassemble starters and alternators and test their internal components for serviceability. Reassembled alternators and starters will be tested to verify operation. Starting and charging systems will be diagnosed utilizing test equipment and repaired.</td>
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<tr>
<td>ELCT 106</td>
<td>Electrical Systems 1</td>
<td>4.0</td>
<td>60.0</td>
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<td></td>
<td>You will learn the operation, diagnosis and repair electrical circuits and components.</td>
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<tr>
<td>ELCT 107</td>
<td>Electrical Systems 2</td>
<td>4.0</td>
<td>60.0</td>
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<td>Building on the skills developed in Electrical Systems 1 you will examine the operation, diagnosis and repair of computer control systems and batteries.</td>
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<tr>
<td>ELCT 108</td>
<td>Starting, Charging, Lighting and Wipers</td>
<td>4.0</td>
<td>60.0</td>
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<td></td>
<td>You will become familiar with the operation, diagnosis and repair of starting, charging, lighting, and wiper systems.</td>
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<tr>
<td>ELCT 109</td>
<td>Electrical Theory and Practices</td>
<td>3.0</td>
<td>45.0</td>
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<td></td>
<td>You will gain an understanding of the electrician trade, electrical theory, electrical terminology and mentoring. Your studies will familiarize you with the basic principles of electricity related to high voltage applications. You will terminate conductors and install typical lighting and receptacle circuits.</td>
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</tbody>
</table>
### ELCT 110 Equipotential Bonding and Grounding Zone
Credit Units: 2.0  Course Hours: 30.0

Your studies will focus on equipotential grounding and bonding. Topics addressed in the course include electrical theory, permanent grounding methods, fault currents, capacities of temporary grounding connectors and testing. You will discuss how to create a safe work environment using equipotential grounding and bonding systems.

### ELCT 111 Electricity Fundamentals
Credit Units: 4.0  Course Hours: 60.0

Your studies will focus on the principles of electrical circuits. You will analyze principles and theorems of electricity including current, voltage and resistance. You will solve electrical circuit problems.

### ELCT 112 Basic Electricity 1
Credit Units: 3.0  Course Hours: 45.0
Corequisite(s): ELCT 113

You will study the fundamentals of direct current (DC) electricity. You will be introduced to basic electrical quantities, circuits and circuit analysis techniques. You will analyze series, parallel, and series-parallel circuits.

### ELCT 113 Basic Electricity Lab 1
Credit Units: 3.0  Course Hours: 45.0
Corequisite(s): ELCT 112

You will apply the principles of direct current (DC) electricity in a lab setting. You will construct circuits on a breadboard and use multimeters to analyze them. Circuits will also be constructed and analyzed using circuit simulation software. Spreadsheet software will also be used to analyze circuits and data.

### ELCT 114 Basic Electricity 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): ELCT 112, ELCT 113
Corequisite(s): ELCT 115

You will study the fundamentals of alternating current (AC) electricity. You will be introduced to electrical quantities, circuits and circuit analysis techniques. Circuits will be analyzed using software tools.

### ELCT 115 Basic Electricity 2 Lab
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): ELCT 112, ELCT 113
Corequisite(s): ELCT 114

You will apply the principles of alternating current (AC) electricity in a lab setting. You will construct circuits on a breadboard and use multimeters, function generators and oscilloscopes to analyze them. Circuits will also be constructed and analyzed using circuit simulation software. Spreadsheet software will also be used to analyze circuits and data.

### ELEC 109 Electrical
Credit Units: 2.0  Course Hours: 30.0

You will learn the basic theory and practical application of electricity.

### ELEC 119 Electrical Theory
Credit Units: 4.0  Course Hours: 54.0

You will explore electrical theory and develop the practical skills needed to test electrical components and systems. You will also develop the skills needed to service batteries.

### ELEC 120 Electrical Systems
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): SFTY 126*

You will focus on identifying, diagnosing, servicing, repairing and replacing automotive wiring, electrical parts and computer components.

### ELEC 138 Basic Electricity 1
Credit Units: 3.0  Course Hours: 48.0

You will study the fundamentals of electricity. The course content includes an introduction to basic electrical quantities, basic electric circuits and circuit analysis. You will receive hands-on instruction regarding the use of multimeters. You will perform experiments to reinforce the fundamentals of electricity and use multimeters to evaluate the characteristics of basic DC & AC circuits.
### ELEC 139 Basic Electricity 2
Credit Units: 3.0  
Course Hours: 51.0  
You will learn the operating principles of transformers, relays, generators, single and three-phase AC motors. You will construct and analyze rectifier and relay control circuits. You will analyze the operation of transformers and test the performance of a variety of AC motors. You will construct and troubleshoot common motor control circuits.

### ELEC 148 Fundamentals of Electrical Systems
Credit Units: 6.0  
Course Hours: 95.0  
You will learn the fundamentals of electricity and magnetism, wiring circuits, electrical components and Ohm's Law. You will also learn how to diagnose and repair batteries, wiring circuits and electrical components.

### ELEC 149 Basic Electricity
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): SAFE 104*  
You will be introduced to the basic concepts of direct current (DC) and alternating current (AC) circuits and machines. You will use multi-meters, perform electrical calculations and apply transformer principles. You will study electrical distribution systems in relation to building lighting.

### ELEC 150 Passive Direct Current (DC) Circuits 1
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): ELEC 142  
You will describe basic electronic principles and verify Ohm's Law and power equations. You will apply these principles and equations in analyzing and troubleshooting series, parallel and series-parallel circuits. You will gain practical experience using multi-meters and power supplies.

### ELEC 151 Passive Direct Current (DC) Circuits 2
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): ELEC 150*  
Equivalent Course(s): ELEC 143  
You will study the principles of magnetism and electromagnetism. You will test, measure and analyze inductors, capacitors, resistive networks and transducers.

### ELEC 152 Passive Alternating Current (AC) Circuits 1
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): ELEC 151*  
Equivalent Course(s): ELEC 144  
You will interpret and analyze waveforms using complex number math. You will troubleshoot and analyze resistive-capacitive (RC), and resistive-inductive-capacitive (RLC) circuits. You will gain experience using oscilloscopes, function generators and frequency counters.

### ELEC 153 Passive Alternating Current (AC) Circuits 2
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): ELEC 152*  
Equivalent Course(s): ELEC 145  
You will test and troubleshoot transformer and resonant circuits. You will analyze resistive-capacitive (RC) and resistive-inductive-(RL) pulse response and resonant and passive filter response.

### ELEC 154 Direct Current (DC) Power Plants
Credit Units: 1.0  
Course Hours: 15.0  
You will discuss typical power plant configurations and the maintenance required to ensure the back-up equipment is ready to function in the event a commercial power supply is disrupted. You will describe grounding techniques.

### ELEC 155 Fundamentals of Electrical Systems
Credit Units: 5.0  
Course Hours: 75.0  
You will learn the fundamentals of electricity and magnetism, wiring circuits, electrical components and Ohm's Law. You will also learn how to diagnose and repair batteries, wiring circuits and electrical components.

### ELEC 156 Starting and Charging Circuits
Credit Units: 3.0  
Course Hours: 50.0  
You will study electromagnetism as it relates to starting and charging system operation. You will learn how to service and troubleshoot starting and charging systems and their components.
ELEC 157 Fundamentals of Electrical Systems
Credit Units: 4.0 Course Hours: 60.0
You will study fundamental principles of electricity and magnetism, wiring circuits, electrical components and Ohm’s Law. You will also learn how to diagnose and repair batteries, wiring circuits and electrical components.

ELEC 158 Starting and Charging Circuits
Credit Units: 4.0 Course Hours: 60.0
Prerequisite(s): ELEC 157*
Equivalent Course(s): ELEC 172
You will study electromagnetism as it relates to starting and charging system operation. You will learn how to service and troubleshoot starting and charging systems and their components.

ELEC 159 Electrical Systems
Credit Units: 4.0 Course Hours: 60.0
Prerequisite(s): ELEC 149, SAFE 104
You will be introduced to electrical troubleshooting techniques and how to apply them to building systems equipment. You will learn how an uninterrupted power supply system operates and how to manage auxiliary power and lighting systems. Your studies will also include variable frequency drives.

ELEC 188 Basic Electricity 1
Credit Units: 2.0 Course Hours: 30.0
Equivalent Course(s): ELEC 288, PHYS 224
You will be introduced to the basics of alternating current (AC) and direct current (DC) circuits and machines. You will use electrical metering devices, perform electrical calculations and describe the operation of transformers and electrical distribution systems.

ELEC 279 Basic Electricity
Credit Units: 4.0 Course Hours: 60.0
Equivalent Course(s): ELEC 190
You will be provided an introduction to the fundamentals of DC and AC measurement and circuitry (including Ohm’s Law, power and series and parallel circuits). A laboratory program is an integral part of this course.

ELEC 291 Basic Electricity 2
Credit Units: 3.0 Course Hours: 45.0
Prerequisite(s): ELEC 188
Building on the knowledge gained in ELEC 188 (Basic Electricity 1) your studies will cover topics including electrical: theory, circuits, machines and calculations. These topics are required for 3rd Class Power Engineering certification.

ELEC 296 Electrical Basics
Credit Units: 4.0 Course Hours: 60.0
You will focus on basic electrical theory, including electron theory, Ohm’s Law, Watt’s Law and the laws of series and parallel circuits. The course content includes battery operation and servicing. You will use multi-meters to explore electrical circuit operation to perform basic diagnostics.

ELEC 298 Electrical Starting and Charging Systems
Credit Units: 3.0 Course Hours: 45.0
You will focus on the fundamentals of electrical starting and charging systems found on agricultural equipment. You will learn the principles of electrical charging and starting systems. You will explore each of these system components and perform diagnosis on each independent system.

ELEC 299 Electrical System Diagnostics
Credit Units: 2.0 Course Hours: 30.0
You will focus on the diagnosis and testing of electrical systems on agricultural equipment. You will interpret schematic system diagrams to diagnose and repair electrical circuits and systems.

ELTR 113 Electronic Telecommunication Principles 1
Credit Units: 4.0 Course Hours: 60.0
You will become familiar with the relationship between spectrum bandwidth and information. You will also learn special techniques and coded digital communications.

ELTR 117 Basic Electronics
Credit Units: 4.0 Course Hours: 60.0
Corequisite(s): ELTR 118, MAT 100
Your studies will focus on the principles of electrical circuits. You will study DC and AC circuits, and solid state devices. Circuit analysis techniques will be emphasized throughout the course.
ELTR 118 Basic Electronics Lab
Credit Units: 3.0  Course Hours: 45.0
Corequisite(s):  ELTR 117
Using laboratory experiments and practice, you will illustrate and verify the electrical theory learned in ELTR 117 (Electronics Theory).

ELTR 128 Data Communications
Credit Units: 6.0  Course Hours: 90.0
Prerequisite(s):  MICR 106, ELTR 129*
You will study electronic data, voice and video communication technology. Serial, local area network (LAN) and wide area network (WAN) standards for data communication will be emphasized.

ELTR 129 Radio Communications
Credit Units: 6.0  Course Hours: 90.0
Prerequisite(s):  CIRC 103
You will study radio communications technology. Amplitude and angle modulation techniques used in wireless communications will be emphasized. You will also construct and evaluate communication system circuits for broadcast radio and wireless communications.

ELTR 135 Active Components and Circuits 1
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  ELEC 153*
Equivalent Course(s):  ELTR 130
You will study linear and switching power supplies, the bipolar junction transistor (BJT), and field-effect-transistors. You will troubleshoot power supplies and their components, including rectifier diodes, filters and integrated circuit (IC) three-terminal-regulators. You will study BJT biasing and operation plus FET devices and circuits.

ELTR 136 Active Components and Circuits 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  ELTR 135*
Your studies will focus on amplifiers and circuits. You will study the decibel, amplifier classes, op-amp circuits and integrated circuit (IC) timers and apply troubleshooting techniques to these circuits. You will also be introduced to specialized semiconductors.

ELTR 137 Digital Integrated Circuits 1
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  ELEC 151*
Equivalent Course(s):  ELTR 133
You will use and convert arithmetic operations in various number systems. You will test basic logic circuits and basic digital logic devices. Your studies will include describing and examining combinational and sequential logic circuits.

ELTR 138 Digital Integrated Circuits 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  ELTR 137*
Equivalent Course(s):  ELTR 134
You will analyze and troubleshoot encoder and decoder circuits. You will build and analyze a Digital-to-Analog Converter (DAC) circuit and an Analog-to-Digital Converter (ADC) circuit. Your studies will also include low-level programming of a basic microprocessor.

ELTR 148 Electronic Communication Principles 1
Credit Units: 3.0  Course Hours: 45.0
You will study noise concepts, amplitude modulation (AM) and single sideband (SSB) communications. You will also describe the fundamentals of amplitude modulation (AM).

ELTR 149 Electronic Communication Principles 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  ELTR 148*
You will study describe frequency modulation (FM) transmission, generation and reception. You will use a spectrum analyzer.

ELTR 182 Electricity and Electronics 1
Credit Units: 5.0  Course Hours: 77.0
Equivalent Course(s):  ELTR 120
You will study basic electricity and electronics from a functional point of view. The examination of components will be avoided in favour of a black box approach. The course content includes current and voltage (AC and DC), resistance, capacitance, inductance, Ohm’s Law, series and parallel circuits, electrical power and energy, and digital electronic circuits.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTR 183</td>
<td>Aircraft Electronics and Avionics</td>
<td>3.0</td>
<td>45.0</td>
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</tr>
<tr>
<td></td>
<td>You will examine electrical theory and power generation as it applies to aircraft electrical systems. You will also examine various avionics and electrical systems including EFIS. Troubleshooting electrical problems and appropriate emergency procedures will also be discussed.</td>
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</tr>
<tr>
<td>ELTR 193</td>
<td>Industrial Electronics</td>
<td>2.0</td>
<td>30.0</td>
<td>ELCT 114, ELCT 115</td>
</tr>
<tr>
<td></td>
<td>You will study electric controls and electric machines by looking at the theory behind their operation. You will review the operation of relays, solenoids, alternating current (AC) and direct current (DC) motors, and motor controls. You will also study single-phase and three-phase circuits.</td>
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</tr>
<tr>
<td>ELTR 194</td>
<td>Industrial Electronics Lab</td>
<td>3.0</td>
<td>45.0</td>
<td>ELCT 114, ELCT 115</td>
</tr>
<tr>
<td></td>
<td>You will study the operation of electric controls and electric machines by constructing circuits and observing their operation. You will construct circuits containing solenoids, relays, alternating current (AC) and direct current (DC) motors, and motor controls. You will also study single-phase and three-phase circuits.</td>
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</tr>
<tr>
<td>ELTR 195</td>
<td>Power Electronics</td>
<td>4.0</td>
<td>60.0</td>
<td>ELCT 114, ELCT 115</td>
</tr>
<tr>
<td></td>
<td>You will be introduced to the operation of rectifiers, voltage regulators, thyristors, opto-electronic devices and power switching circuits. You will construct circuits using rectifiers, regulators, thyristors and opto-electronic devices.</td>
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</tr>
<tr>
<td>ELTR 196</td>
<td>Mechatronics</td>
<td>1.0</td>
<td>15.0</td>
<td>ELTR 195</td>
</tr>
<tr>
<td></td>
<td>Using the power electronics devices, you will design and build a self-starting solar powered car model that will race against other cars on a purpose built race track.</td>
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<tr>
<td>ELTR 197</td>
<td>Analog Devices</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td></td>
<td>You will be introduced to discrete electronic components and their application in analog circuits. You will explore diodes, bipolar junction transistors (BJT), field effect transistors (FET), comparators and operational amplifiers (op-amps).</td>
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<tr>
<td>ELTR 198</td>
<td>Troubleshooting</td>
<td>1.0</td>
<td>15.0</td>
<td>ELTR 197</td>
</tr>
<tr>
<td></td>
<td>You will develop a structured approach to troubleshooting electronic circuits. Analog circuits and applications are emphasized.</td>
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<tr>
<td>ELTR 200</td>
<td>Introduction to Communication Systems</td>
<td>3.0</td>
<td>45.0</td>
<td>ELTR 198</td>
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<td></td>
<td>You will learn about the fundamental principles that apply to various communication systems. Noise, transmission lines, and Fourier series are explored during this course.</td>
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<tr>
<td>ELTR 201</td>
<td>Data Communications</td>
<td>2.0</td>
<td>30.0</td>
<td>ELTR 200</td>
</tr>
<tr>
<td></td>
<td>You will study electronic data, voice and video communication technology. Serial, local area network (LAN) and wide area network (WAN) standards for data communication are emphasized.</td>
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<tr>
<td>ELTR 202</td>
<td>Data Communications Lab</td>
<td>3.0</td>
<td>45.0</td>
<td>ELTR 202</td>
</tr>
<tr>
<td></td>
<td>You will use electronic data, voice and video communication technology. You will use serial, local area network (LAN) and wide area network (WAN) standards for data communications.</td>
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</tbody>
</table>

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### ELTR 203 Radio Communications
Credit Units: 2.0  
Course Hours: 30.0
Prerequisite(s): ELTR 200
Corequisite(s): ELTR 204
You will study radio frequency (RF) communications technology. Common modulation techniques used in wireless communications will be analyzed.

### ELTR 204 Radio Communications Lab
Credit Units: 3.0  
Course Hours: 45.0
Prerequisite(s): ELTR 200
Corequisite(s): ELTR 203
You will construct and test radio frequency (RF) communications circuits using common RF test equipment. Through hands on experiments you will learn how to evaluate and troubleshoot RF circuits, components and systems.

### ELTR 221 Semi-Conductor Electronics
Credit Units: 3.0  
Course Hours: 48.0
Prerequisite(s): ENGE 121, LABS 123, MAT 110
Your studies will focus on semiconductor diodes, bipolar transistors and field effect transistors. You will design, analyze and discuss the circuit applications of each device in its various configurations.

### ELTR 223 Industrial Electronics
Credit Units: 3.0  
Course Hours: 48.0
Prerequisite(s): ELTR 221
Corequisite(s): LABS 224
You will study the application of electronics to industrial controls. Your studies will include power amplifiers, field effect transistors, integrated circuits and operational amplifier circuits.

### ELTR 226 Industrial Electronics
Credit Units: 3.0  
Course Hours: 44.0
Prerequisite(s): ELTR 223
You will be a combination of classroom and lab activities which will help you become familiar with oscillators, power rectifiers, voltage regulation, filtering and power supplies.

### ELTR 228 Industrial Electronics
Credit Units: 3.0  
Course Hours: 48.0
Prerequisite(s): ELTR 226
Corequisite(s): LABS 227
You will focus on the control of AC and DC energy with single and multi-phase rectifiers, converters and controllers including DC and AC motor speed control. You will study current technologies such as power field-effect transistors (FETs), optical coupling, digital to analog conversion and ongoing changes in technology.

### ELTR 287 Computer Hardware
Credit Units: 4.0  
Course Hours: 64.0
Equivalent Course(s): COHS 190
Your studies will focus on gaining knowledge of computer operation. You will perform computer component installation. You will learn computer maintenance techniques. Classroom and lab experiences will help you analyze failed computer systems. The course content includes returning a failed computer to operational status. You will be able to communicate with others about computer systems and related hardware.

### ELTR 289 Electricity and Electronics 2
Credit Units: 5.0  
Course Hours: 77.0
Prerequisite(s): ELTR 182
Building on the skills you developed in ELTR 182 (Electricity and Electronics 1), you will receive a general overview of electrical applications. The course content includes the power supply, transformers, AC and DC motors, electromagnetic and electronic control device symbols, basic PLC programming symbols and variable speed drives. You will be introduced to some basic automation ideas with respect to industrial plant control.

### EMER 100 Patient Assessment & Transport
Credit Units: 2.0  
Course Hours: 30.0
You will learn to perform scene assessment, obtain a patient history, acquire vital signs, perform a physical examination and incorporate this knowledge into a complete patient assessment. You also will learn principles of extrication and rescue as it pertains to both industrial and agricultural emergencies. You will be introduced to the principles of road and aeromedical transport. You will operate an ambulance on a public roadway. Upon completion of the course you will receive certification from the Saskatchewan Safety Council for Professional Driver Improvement.
### Course Descriptions

#### EMER 101 Cardiac Care
**Credit Units:** 4.0  **Course Hours:** 65.0  
**Prerequisite(s):** APHY 164*, APHY 165*  
You will provide care for common cardiac disorders (including vascular diseases, cardiac inflammatory disorders, acute coronary syndromes, heart failure, cardiac conduction disorders and cardiac arrest). You will integrate 3-lead electrocardiograms into patient care as well as obtain 12-lead electrocardiograms. You also will be introduced to advanced cardiac therapies (including transcutaneous pacing, manual defibrillation and cardioversion). Upon completion of this course you will receive Basic Life Support for Healthcare Provider’s certification from the Heart and Stroke Foundation.

#### EMER 102 Respiratory Care
**Credit Units:** 5.0  **Course Hours:** 75.0  
**Prerequisite(s):** APHY 164*, APHY 165*  
You will provide care for common respiratory disorders (including asthma, anaphylaxis, pneumonia and respiratory failure). Your learning activities will include oxygen delivery, maintenance of upper airway, manual ventilation techniques and continuous positive airway pressure (CPAP). You will be introduced to advanced respiratory support therapies (including advanced airway management and ventilation techniques).

#### EMER 103 Diverse Population Groups
**Credit Units:** 2.0  **Course Hours:** 23.0  
**Prerequisite(s):** APHY 164*, APHY 165*  
You will integrate care for common illnesses and injuries specific to diverse population groups (including geriatric, physically impaired, and mentally impaired). As well, you will describe common challenges associated with bariatric and culturally diverse patients. Upon completion of this course you will receive certification for Geriatric Education for Emergency Medical Services (GEMS).

#### EMER 104 Community Paramedic
**Credit Units:** 2.0  **Course Hours:** 30.0  
You will study the collaborative role of the community paramedic. You will acknowledge the need for community support agencies. You will be introduced to common laboratory procedures and diagnostic imaging and how to differentiate between normal and abnormal results. You will develop the skills required to provide non-emergent care to a home health patient (including catheter care and routine wound care) as well as integrate care to a palliative patient.

#### EMER 105 Advanced Respiratory Management
**Credit Units:** 5.0  **Course Hours:** 76.0  
**Prerequisite(s):** EMER 158*, PATH 100*  
Based on analysis of common medical and laboratory data, you will provide care for adult patients with respiratory emergencies. You will develop advanced diagnostic skills and therapies including endotracheal intubation, surgical airways, alternate medication routes and mechanical ventilation.

#### EMER 106 Interpersonal Communications and Patient Assessment
**Credit Units:** 1.0  **Course Hours:** 21.0  
You will study aspects of interpersonal communications including verbal, non-verbal, and emotional patient responses. Building on your basic interviewing and assessment skills, you will develop advanced assessment skills, including patient acuity rating scales.

#### EMER 107 Professionalism, Leadership, and Communications
**Credit Units:** 3.0  **Course Hours:** 45.0  
**Equivalent Course(s):** COMM 107  
Your studies will help you to develop qualities that are important for paramedic practice (professionalism, leadership, reflection and communication). You will gain knowledge of legal and ethical aspects of paramedic practice, develop your communication skills (including conflict management) and learn the principles of critical thinking. You will also evaluate the importance of participation in continuing education and professional development. You will gain knowledge regarding ethical conduct for research involving humans and will receive the Tri-Council Policy Statement: Course on Research Ethics (TCPS 2: CORE) certification upon completion of the course.

#### EMER 108 Health and Safety
**Credit Units:** 3.0  **Course Hours:** 45.0  
**Equivalent Course(s):** SFTY 135  
You will learn how to develop strategies for maintaining a healthy lifestyle. Your studies will focus on personal wellness, maintaining a safe work environment, using infection control techniques and practicing proper lifting and moving techniques. You will also learn how to manage a variety of situations, including crime scenes, hazardous materials, and potential terrorist actions.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EMER 109 Patient Assessment, Transport, and Diverse Populations</strong></td>
<td>4.0</td>
<td>60.0</td>
<td>APHY 164, APHY 165, EMER 109, PHAR 100</td>
<td>You will learn how to perform a scene assessment, obtain a patient history, acquire vital signs, perform a physical examination and incorporate this knowledge into a complete patient assessment. You will describe common challenges associated with bariatric and culturally diverse patients. You will be introduced to the principles of road ambulance and aeromedical transport. You will also be required to operate an ambulance on a public roadway. Upon completion of the course, you will receive certification from the Saskatchewan Safety Council for Professional Driver Improvement.</td>
</tr>
<tr>
<td><strong>EMER 110 Cardiac and Respiratory Theory</strong></td>
<td>3.0</td>
<td>45.0</td>
<td>EMER 110</td>
<td>APHY 164, APHY 165, EMER 109, PHAR 100</td>
</tr>
<tr>
<td><strong>EMER 111 Cardiac Care</strong></td>
<td>3.0</td>
<td>45.0</td>
<td>EMER 110</td>
<td>APHY 164, APHY 165, EMER 109, PHAR 100</td>
</tr>
<tr>
<td><strong>EMER 112 Respiratory Care</strong></td>
<td>3.0</td>
<td>45.0</td>
<td>EMER 110</td>
<td>APHY 164, APHY 165, EMER 109, PHAR 100</td>
</tr>
<tr>
<td><strong>EMER 113 Trauma Management 1</strong></td>
<td>3.0</td>
<td>45.0</td>
<td>APHY 164, APHY 165, EMER 109, PHAR 100</td>
<td>You will be introduced to the assessment and management of shock, burns, fractures and soft tissue injuries. You will also be introduced to the skills necessary in assessing and managing head and facial, thoracic, abdominal and spinal injuries. You will learn the principles of extrication and rescue as well as how to integrate triage and multiple patient management into paramedic practice.</td>
</tr>
<tr>
<td><strong>EMER 114 Trauma Management 2</strong></td>
<td>3.0</td>
<td>45.0</td>
<td>EMER 113</td>
<td>APHY 164, APHY 165, EMER 109, PHAR 100</td>
</tr>
<tr>
<td><strong>EMER 115 Medical Care 1</strong></td>
<td>3.0</td>
<td>45.0</td>
<td>APHY 164, APHY 165, EMER 109, PHAR 100</td>
<td>You will learn how to provide care for common medical disorders, including gastrointestinal, genitourinary, reproductive, gynecological and obstetrical disorders. You will also learn how to provide care for neonatal and pediatric patients. Upon completion of this course you will receive certification in Pediatric Education for Prehospital Professional (PEPP).</td>
</tr>
<tr>
<td><strong>EMER 116 Foundations of Community Paramedicine</strong></td>
<td>3.0</td>
<td>45.0</td>
<td>APHY 164, APHY 165, EMER 109</td>
<td>You will study the collaborative role of the community paramedic and recognize the significance of utilizing community support agencies. You will be introduced to common laboratory procedures and diagnostic imaging and how to differentiate between normal and abnormal results. You will develop the skills required to provide non-urgent care to a home health patient (including catheter care and routine wound care) as well as integrate care for a palliative patient. You will also integrate care for common illnesses and injuries specific to geriatric population groups.</td>
</tr>
</tbody>
</table>

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## Course Descriptions

### EMER 151 Obstetrics and Pediatrics

- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Prerequisite(s):** APHY 164*, APHY 165*

You will integrate care for pediatric patients, neonatal patients, and patients with common gynecological and obstetrical disorders. You will also perform a simulated delivery. Upon completion of this course you will receive certification in Pediatric Education for Prehospital Professional (PEPP).

### EMER 155 Patient Management and Integration

- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** EMER 107, EMER 108, EMER 111, EMER 112, EMER 114, EMER 115, EMER 116, EMER 198, EMER 199

You will integrate communication, professionalism, leadership, knowledge of medicolegal, ethics and physical strength into paramedic practice. You will integrate approach, assessment, treatment and transport for a cardiovascular, trauma, medical and respiratory patient in a simulated setting. You will integrate care following Saskatchewan Paramedic Clinical Practice Protocols. You will also think critically while interpreting patient history and physical assessment as it relates to a patient presentation.

### EMER 158 Transition to Advanced Care Paramedic

- **Credit Units:** 3.0  
- **Course Hours:** 50.0

Your studies will focus on foundational communication, leadership, regulatory, and professional elements of paramedic practice. You will refine primary care paramedic assessments, skills and treatment plans as you prepare for advanced life support knowledge, skills and abilities.

### EMER 159 Patient Management and Integration 1

- **Credit Units:** 2.0  
- **Course Hours:** 37.0  
- **Prerequisite(s):** ANAT 167*, EMER 105*, EMER 106*, EMER 158*, EMER 175*, EMER 178*, FTNS 162*, PATH 100*, PHAR 171*

You will integrate theory and skills in the management of simulated patients within the prehospital and health facility environments. The course content includes management strategies congruent with scope of practice in Saskatchewan.

### EMER 170 Trauma Management

- **Credit Units:** 5.0  
- **Course Hours:** 75.0  
- **Prerequisite(s):** APHY 164*, APHY 165*

You will provide care for common traumatic injuries. You will learn assessment and management of shock, burns, fractures and soft tissue injuries. You will also learn the skills necessary to assess and manage head and facial, thoracic, abdominal and spinal injuries. You will be introduced to advanced life support therapies relevant to trauma (including indications for chest tubes and needle thoracostomy). Upon completion of this course you will receive certification in International Trauma Life Support (ITLS) at the basic level.

### EMER 171 Medical Care 1

- **Credit Units:** 3.0  
- **Course Hours:** 48.0  
- **Prerequisite(s):** APHY 164*, APHY 165*

You will integrate care for common medical disorders (including gastrointestinal, genitourinary and eye, ear, nose and throat disorders). You will also learn how to describe and integrate care for a patient experiencing disorders as a result of adverse environments.

### EMER 175 Medical 1

- **Credit Units:** 3.0  
- **Course Hours:** 39.0  
- **Prerequisite(s):** EMER 158*, PATH 100*

Your studies will focus on adult patients presenting with common medical emergencies. You will provide advanced life support to patients with neurological, immune and endocrine system illness as well as those exposed to adverse environments.

### EMER 178 Advanced Cardiac Management

- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** EMER 158*, PATH 100*

You will study advanced cardiac diagnostics including 12-lead electrocardiogram analysis. You will provide advanced cardiac life support (including electrical therapies) to patients based on information gathered from advanced assessments. You will become certified in Advanced Cardiac Life Support.

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### Course Descriptions

#### EMER 180 Field Practicum
Credit Units: 13.0  
Course Hours: 200.0
Prerequisite(s): ANAT 167, EMER 158, EMER 159, EMER 175, EMER 176, EMER 177, EMER 178, FTNS 162, LEAD 160, MICR 160, PHAR 161, PHAR 162, PHAR 168

You will participate in a supervised pre-hospital field experience. An advanced care paramedic preceptor will evaluate theory and skill sets studied in Semester 1. You will function under the scope of practice as defined by the Saskatchewan Health Emergency Treatment Protocols.

#### EMER 181 Clinical Practicum
Credit Units: 13.0  
Course Hours: 196.0
Prerequisite(s): ANAT 167, EMER 158, EMER 159, EMER 175, EMER 176, EMER 177, EMER 178, FTNS 162, LEAD 160, MICR 160, PHAR 161, PHAR 162, PHAR 168

You will participate in a supervised clinical experience in specialized areas of a health care facility. Health care professionals will evaluate your assessment, management and communication skills. You will function according to health care facility policy and advanced care paramedic scope of practice. Clinical areas include emergency department, operating room and coronary care.

#### EMER 182 Medical Care 2
Credit Units: 3.0  
Course Hours: 45.0
Prerequisite(s): APHY 164*, APHY 165*, EMER 109, PHAR 100

You will integrate care for common medical disorders, including, neurological, behavioral and psychiatric, endocrine and toxicological disorders.

#### EMER 199 Medical Care 3
Credit Units: 3.0  
Course Hours: 45.0
Prerequisite(s): APHY 164, APHY 165, EMER 109, PHAR 100  
Equivalent Course(s): EMER 171

You will study the pathophysiology and learn to integrate care for common medical disorders including eye, ear, nose and throat disorders. You will study the pathophysiology and integrate care for a patient experiencing disorders as a result of adverse environments. You will integrate care for common illnesses and injuries specific to the physically impaired and mentally impaired. Upon completion of this course you will receive certification in Gentle Persuasive Approach (GPA).

#### EMER 200 Specialized Therapeutics
Credit Units: 1.0  
Course Hours: 15.0
Prerequisite(s): EMER 159

You will study advanced wound care and drainage systems. You will also interpret data from indwelling vascular devices.

#### EMER 201 Obstetrics, Gynecology and Pediatrics
Credit Units: 3.0  
Course Hours: 51.0
Prerequisite(s): EMER 159, PATH 200*

You will study pregnancy from conception to birth, and manage pregnancy, labour, antepartum and gynecological emergencies. You will study neonatal and pediatric illnesses and injuries as well as advanced treatment modalities. You will become certified in Pediatric Advanced Life Support (PALS) and Neonatal Resuscitation Procedures (NRP).

#### EMER 262 Medical 2
Credit Units: 3.0  
Course Hours: 39.0
Prerequisite(s): EMER 159, PATH 200*

Building on your knowledge from Medical 1 (EMER 175), you will provide advanced life support to adult patients with gastrointestinal; reproductive; genitourinary; and eyes, ears, nose and throat illnesses as well as those patients experiencing illness due to poisoning and overdose.

#### EMER 270 Advanced Trauma Management
Credit Units: 3.0  
Course Hours: 43.0
Prerequisite(s): EMER 159, PATH 200*

Building on your patient assessment skills, you will develop advanced assessments and apply advanced life support treatments in trauma emergencies. You will become certified in International Trauma Life Support (ITLS)-Advanced.

#### EMER 279 Diverse Population Groups
Credit Units: 2.0  
Course Hours: 34.0
Prerequisite(s): EMER 159, PATH 200*

Your studies will focus on individuals with diverse medical needs including cancer patients, geriatric patients and patients with conditions impacting physical and cognitive abilities. You will learn how to implement emergency care for patients while addressing their diverse healthcare needs. You will also become certified in Geriatric Education for Emergency Medical Services (GEMS).
# Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EMER 281</strong></td>
<td>Patient Management and Integration 2</td>
<td>2.0</td>
<td>37.0</td>
<td>ANAT 267*, EMER 200*, EMER 201*, EMER 262*, EMER 270*, EMER 279*, FTNS 163*, LEAD 100*, PATH 200*</td>
</tr>
<tr>
<td></td>
<td>You will integrate theory and skills in the management of simulated patients within prehospital and health facility environments. The course content includes management strategies congruent with scope of practice in Saskatchewan.</td>
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<tr>
<td><strong>EMPL 180</strong></td>
<td>Employability Skills</td>
<td>3.0</td>
<td>45.0</td>
<td>COM 103, COM 105, COMM 292, EMPL 180CE, EMPS 105</td>
</tr>
<tr>
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<td>You will receive instruction and practice in written communication skills needed in the workplace. You will develop effective job search strategies, with emphasis on communicating a professional image through job search materials and interview skills.</td>
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<tr>
<td><strong>EMPS 102</strong></td>
<td>Work Environment Skills</td>
<td>2.0</td>
<td>25.0</td>
<td>MKTG 202</td>
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<td>Your studies will focus on safe working practices. You will receive an introduction to WHMIS and Occupational Health and Safety.</td>
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<tr>
<td><strong>EMPS 105</strong></td>
<td>Personal Management</td>
<td>3.0</td>
<td>48.0</td>
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<tr>
<td></td>
<td>You will focus on your role in the office including lifelong learning and goal setting, your rights and responsibilities, professionalism and ethics. You will also prepare for the job search process.</td>
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<tr>
<td><strong>EMPS 106</strong></td>
<td>Employability Skills</td>
<td>1.0</td>
<td>14.0</td>
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<tr>
<td></td>
<td>You will learn good work habits, attitudes and behaviours commonly known as employability skills. You will apply these skills to all facets of your studies.</td>
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<tr>
<td><strong>EMPS 107</strong></td>
<td>Workplace Wellness</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will examine the roles and concepts of professional behavior in the security industry. You will also examine the components of a healthy lifestyle necessary for wellness in the workplace.</td>
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<tr>
<td><strong>EMPS 108</strong></td>
<td>Workplace Wellness</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will examine the concepts of wellness and healthy lifestyles as they apply to a workplace setting. Your studies will include information on workplace stress and strategies for stress management. Your studies will also include elements of occupational health and safety issues common to dispatch personnel.</td>
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<tr>
<td><strong>EMPS 200</strong></td>
<td>Portfolio Development</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will design your résumé and portfolio to feature the skills for successful employment. Your studies will involve practicing valuable employee traits while preparing for your profession.</td>
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<tr>
<td><strong>EMPS 201</strong></td>
<td>Portfolio Design and Presentation</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td></td>
<td>An effective portfolio containing a comprehensive selection of your best work is essential. You will discuss the types of portfolios and learn what is necessary to include in a portfolio. You will be expected to produce a strong portfolio. You will have the opportunity to receive feedback on your work through peer and instructor critiques.</td>
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<tr>
<td><strong>EMPS 240</strong></td>
<td>Workplace Wellness</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will examine various topics and practices relating to maintaining workplace safety in a correctional work environment. You will follow a fitness routine in preparation for the physical demands of working in a correctional environment.</td>
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</tr>
<tr>
<td><strong>ENG 100</strong></td>
<td>Applied Theory of Structures</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td></td>
<td>You will build on your knowledge of physics to solve problems involving work and the equilibrium of cantilevers, trusses and frames. Your studies will lead to your basic understanding of frame analysis.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 120</td>
<td>Codes and Standards</td>
<td>2.0</td>
<td>30.0</td>
<td>ELTR 117, ELTR 118, INST 102, INST 103</td>
<td>You will study codes and standards related to industrial process measurement and control. You will also study design and construction practices.</td>
</tr>
<tr>
<td>ENG 192</td>
<td>Strength of Materials</td>
<td>5.0</td>
<td>80.0</td>
<td>ENG 191</td>
<td>Your studies will focus on the relationship between external applied loads and the induced internal stresses in various structural members. You will discuss design and analysis techniques of axial and torsionally loaded members, beams, columns and joints. You will also investigate how materials behave under complex stress states.</td>
</tr>
<tr>
<td>ENG 200</td>
<td>Applied Fluid Mechanics</td>
<td>3.0</td>
<td>45.0</td>
<td>ENG 100</td>
<td>Building on your skills gained in applied physics, you will study the steady flow energy equation. Your studies will include open channel design, pipe sizing considerations, pump selection as well as open and closed loop piping system. You will analyze pumping requirements for series and parallel piping systems using computer software.</td>
</tr>
<tr>
<td>ENG 201</td>
<td>Applied Mechanics of Materials</td>
<td>4.0</td>
<td>60.0</td>
<td>ENG 100</td>
<td>You will study the concept of stress and strain, properties and behaviour of various materials. Your studies will focus on stress and deformation resulting from axial loads, direct shear and torsional loads, shear force and bending moment diagrams, as well as bending stress and transverse shear stress. You will be introduced to basic concepts pertaining to various jointed connections including thin walled cylinders in the design of domestic tanks.</td>
</tr>
<tr>
<td>ENG 291</td>
<td>Concurrent Engineering</td>
<td>4.0</td>
<td>62.0</td>
<td>CAD 283, CAD 295, DSGN 282, ENG 292, ENGM 290</td>
<td>You will learn how to take a design from concept to finished product. You will closely integrate and constantly check the integrity of the engineering design, design documentation, engineering analysis and manufacturability of the product. Your studies will focus on managing the continuous feedback among all aspects of the process, ensuring they are considered in parallel rather than sequential and ensuring they use common databases wherever possible.</td>
</tr>
<tr>
<td>ENG 292</td>
<td>Finite Element Modeling</td>
<td>4.0</td>
<td>64.0</td>
<td>CAD 283, ENG 192</td>
<td>You will gain experience using FEM software by applying several programs to the solution of typical analysis problems. You will develop an appreciation of the power and limitations of FEM by comparing computer-produced results with experimentally derived data and alternative classical methods of stress analysis.</td>
</tr>
<tr>
<td>ENGE 100</td>
<td>Troubleshooting and Safety</td>
<td>2.0</td>
<td>32.0</td>
<td>ENGE 121, LABS 123</td>
<td>You will focus on troubleshooting techniques that apply to many situations and occupations. You will use computer simulation software to draw, simulate, and create &quot;what if&quot; scenarios for electrical circuits. You will be introduced to various environment and safety regulations.</td>
</tr>
<tr>
<td>ENGE 101</td>
<td>Power Systems Transmission</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>Your studies will focus on electrical apparatus. You will explore the transformers including grounding and gauge protection, breakers and fuses, as well motor and manual isolators among other topics.</td>
</tr>
<tr>
<td>ENGE 102</td>
<td>Power Systems Transmission: Switch Yard and Substation Design</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>Your studies will include switchyard design principles and layout as well as substation design principles and station drawing interpretation. Busbars, ground grids and standards will be examined.</td>
</tr>
</tbody>
</table>

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### ENGE 103 Power Systems Transmission: Construction and Installation
- **Credit Units:** 2.0  
- **Course Hours:** 30.0
Your studies will focus on apparatus construction and installation. You will interpret processes and determine sequencing.

### ENGE 104 Power Systems Transmission: Troubleshooting Power Systems
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
Your studies will focus on preventive maintenance and troubleshooting apparatus. You will learn how to safely troubleshoot problems under emergent conditions.

### ENGE 105 Batteries
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
Your studies will focus on batteries. You will explore battery maintenance and influence on performance and control. You will also perform battery tests and examine back up power systems.

### ENGE 106 Relaying and Protection
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
You will study the methods of modern power system relay protection as it pertains to electrical transmission and distribution systems as well as transformers. Your studies will include analyzing basic relaying practices and requirements as they relate to mechanical and computerized relays and interrupting devices.

### ENGE 107 Semiconductor Electronics
- **Credit Units:** 4.0  
- **Course Hours:** 60.0
Prerequisite(s): ENGE 120, LABS 120
You will analyze the characteristics of semiconductor diodes, bipolar transistors, field effect transistors (FET’s) and thyristors. You will operate these devices to design and analyze practical analog circuits. You will apply mathematical calculations, computer simulation and laboratory experimentation to evaluate circuits.

### ENGE 120 Basic Electricity
- **Credit Units:** 4.0  
- **Course Hours:** 60.0
Prerequisite(s): LABS 120*, MAT 110*
Equivalent Course(s): ENGE 121
Your studies will focus on the principles of direct current (DC) circuits. You will analyze principles and theorems of electricity including current, voltage and resistance. You will solve electrical circuit problems.

### ENGE 121 Basic Electricity
- **Credit Units:** 6.0  
- **Course Hours:** 96.0
Corequisite(s): LABS 123
Equivalent Course(s): ENGE 120
Your studies will focus on the principles of DC circuits. You will study electricity, current, voltage and resistance; Ohm's Law, power and energy; series-parallel circuits, capacitance and inductance; R-C and R-L circuits. Circuit analysis techniques will be stressed throughout the course.

### ENGE 200 Alternating Current (AC) Basic Electricity
- **Credit Units:** 4.0  
- **Course Hours:** 60.0
Prerequisite(s): ENGE 120, LABS 120, MAT 110
You will analyze the principles and methods of alternating current (AC) circuits. You will evaluate AC voltage and current phasors, reactance, series-parallel circuits, impedance, networks, AC power resonance, and decibel ratios.

### ENGE 201 Electrical Machines 1 (DC Machines)
- **Credit Units:** 3.0  
- **Course Hours:** 48.0
Prerequisite(s): ENGE 121, LABS 123, MAT 110
Corequisite(s): LABS 200
You will study the principle of magnetism as well as the principles and characteristics of the operation and application of DC generators and motors. You will investigate the construction of electrical machines. Your studies will also include an introduction to the windings used in DC electrical machines.
Course Descriptions

**ENGE 202 Electrical Machines 3 (AC Machines)**
Credit Units: 3.0  Course Hours: 48.0
Prerequisite(s): ENGE 220, LABS 221, ENGE 201, LABS 200, MAT 112
Corequisite(s): LABS 201
You will study the principles, characteristics of the operation and the application of single and three-phase induction motors, synchronous motors and alternators. You will investigate the construction, principle and operation of induction generators and special types of motors. You will also become familiar with the paralleling of generators.

**ENGE 220 AC Circuits**
Credit Units: 3.0  Course Hours: 48.0
Prerequisite(s): ENGE 121, LABS 123, MAT 110
Corequisite(s): LABS 221
You will learn the principles and analysis methods of AC single and three phase circuits. You will study AC voltage and current, phasor algebra, reactance, series-parallel circuits, impedance, networks and equivalent circuits. Your studies will also include AC power, resonance, passive filters, motors, Delta-Wye and Wye-Delta transforms, balanced and unbalanced loads.

**ENGE 221 Robotics and Embedded Systems**
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): DGTL 110, DGTL 111, ENGE 107, COMP 112
You will study robotics in the field of embedded systems. You will study the various types of sensors and actuators and learn their characteristics, applications, and interfacing circuits. You will learn the methods of applied research. You will also apply your skills by developing a robotic device in a project.

**ENGE 224 Logic Control**
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): INST 221, ENG 120, DGTL 225, DGTL 226
You will study the operation and applications of electro-mechanical relays. Your studies will focus on the concepts of normally open, normally closed, instantaneous and time-delay relay contacts and coils. As an introduction to programmable logic controllers (PLCs), you will design logic control circuits using electro-mechanical relays and mini PLCs.

**ENGE 231 Electrical Machines 2 (Transformers)**
Credit Units: 3.0  Course Hours: 44.0
Prerequisite(s): ENGE 201, ENGE 220, LABS 221
Your studies will focus on the construction, principles, connections and characteristics of operation and the application of single-phase and three-phase transformers.

**ENGE 232 Relaying and Protection**
Credit Units: 3.0  Course Hours: 48.0
Prerequisite(s): ELTR 226, COAP 232, DSGN 225
Corequisite(s): ELTR 228
You will study the methods of modern power system relay protection as it pertains to electrical transmission and distribution systems as well as transformers. Your studies will include analyzing basic relaying practices and requirements as they relate to mechanical and computerized relays and interrupting devices.

**ENGL 100 Critical Reading and Writing**
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): ENGL 100CE
You will develop basic skills in critical analysis, effective reading and composition by analyzing and evaluating materials from various disciplines. You will also refine your understanding and practice of the structures of composition by writing a report on a topic of your choice using APA-style format.

**ENGL 101 Critical Reading and Writing**
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): ENGL 101CE
You will develop basic skills in critical analysis, effective reading and composition by analyzing and evaluating materials from various disciplines. You will also refine your understanding and practice of the structures of composition by writing a report on a topic of your choice using APA-style format.
### ENGL 102 Literature Survey
**Credit Units:** 3.0 **Course Hours:** 45.0
**Prerequisite(s):** ENGL 101

You will produce high quality, argumentative essays based on Saskatchewan literature. You will analyze and discuss literary works from Saskatchewan authors, issues that have affected Saskatchewan both in the past and present, and write about Saskatchewan-based topics. You will research Saskatchewan-based topics and issues and apply that knowledge in our analysis of the course material. In addition to analyzing course texts, you will learn to recognize logical fallacies and create logical arguments on various topics throughout the course in order to create contentious thesis statements and supportive material.

### ENGL 1201 IELTS 6.5
**Credit Units:** 0.0 **Course Hours:** 300.0
International English Language Testing Score (IELTS) - testing to Level of 6.5

### ENGM 100 Applied Mechanics
**Credit Units:** 3.0 **Course Hours:** 45.0
**Prerequisite(s):** MATH 182
**Equivalent Course(s):** PHYS 102

You will learn the basic principles of statics. You will apply statics principles to solve various scenarios.

### ENGM 180 Materials of Engineering
**Credit Units:** 5.0 **Course Hours:** 77.0
**Equivalent Course(s):** ENG 191, ENGM 288

You will gain practical knowledge of the fundamental structure, properties (physical, mechanical, chemical) and supplied form of common engineering materials. This knowledge will assist in the evaluation and selection of materials suitable for given design and/or manufacturing processes. Major focus will be directed towards iron and iron alloys (steels), with additional examination of non-iron metals and alloys (aluminum, copper, etc), ceramics, polymers, and composite materials. Your studies will also include areas such as material corrosion and non-destructive examination.

### ENGM 191 Applied Mechanics: Statics
**Credit Units:** 5.0 **Course Hours:** 77.0
**Prerequisite(s):** MATH 182 or MATH 193
**Equivalent Course(s):** ENGM 190, ENGM 191CE, MECA 120

You will learn how to use basic algebra and trigonometry to determine the forces in stationary machine and equipment members. The course content includes force systems, center of gravity, static friction and moment of inertia, and the application of these principles to engineering problems.

### ENGM 193 Applied Mechanics - Dynamics
**Credit Units:** 5.0 **Course Hours:** 77.0
**Prerequisite(s):** ENGM 191

Building on the skills you developed in ENGM 191 (Applied Mechanics: Statics), your studies will focus on kinematics and kinetics. In kinematics, you will analyze the geometry of rectilinear, circular and general plane motions. In kinetics, you will analyze the forces and movements associated with motion using the dynamic equilibrium method, the work, energy power method and the impulse-momentum method. You will learn how to solve engineering problems involving motion only and the forces causing that motion. You will also study linkage mechanisms and their motion.

### ENGM 280 Mechanical Design
**Credit Units:** 6.0 **Course Hours:** 90.0
**Prerequisite(s):** ENGM 289

You will examine the techniques used in the design, analysis and selection of various machine components. Components you will study include shafts, belt and chain drive components, wire rope, fasteners, bearings, springs, couplings, gears, clutches and brakes.

### ENGM 281 Mechanical Design Project
**Credit Units:** 2.0 **Course Hours:** 30.0
**Corequisite(s):** ENGM 280

You will design a machine that is made up of several components you learned to design and select in ENGM 280 (Mechanical Design), along with other more specialized components. You will use specialized software programs as an aid in the design project.
## Course Descriptions

### ENGM 289 Strength of Materials
- **Credit Units:** 5.0  
- **Course Hours:** 77.0  
- **Prerequisite(s):** DRFT 174, ENGM 180, ENGM 191  
- **Equivalent Course(s):** ENG 192  
You will study the relationship between the external applied loads and the induced internal stresses in various structural members. You will also learn design and analysis techniques of axial and torsional loaded members, beams, columns and pressure vessels.

### ENGM 290 Dynamics
- **Credit Units:** 4.0  
- **Course Hours:** 64.0  
- **Prerequisite(s):** ENG 192  
- **Equivalent Course(s):** ENGM 289  
You will study dynamics theory and principles in this course. You will solve kinematics and kinetics problems using principles of relative velocity and Newton's laws of motion. You will analyze forces and motion of mechanical systems using principles of work, energy, and energy conservation. You will study the principles of momentum. You will analyze machine element linkages and vibrations using manual methods and computer software.

### ENGN 113 Engine Theory
- **Credit Units:** 1.0  
- **Course Hours:** 12.0  
You will be provided with an introduction to the basic operation of two-cycle and four-cycle engines with a focus on lubricants and spark plugs.

### ENGN 116 Engines
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
You will gain knowledge of engine operation and the use of precision measuring tools. You will develop skills in engine disassembly, component evaluations, measurement and reassembly procedures.

### ENGN 125 Engine Systems 1
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
You will gain an understanding of the types of engines and the operation, diagnosis and repair of engine systems.

### ENGN 126 Engine Systems 2
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
Your studies will help you develop skills in evaluating the operation, diagnosis and repair of engine assemblies.

### ENGN 127 Engine Systems 3
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
The course focuses on the diagnosis, repair and replacement of engine assemblies.

### ENGN 128 Engine Overhaul and Assessment
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
Your studies will focus on the construction and operation of the engine's internal and external components. You will inspect an operational engine and disassemble the engine in order to assess the internal components for wear and to determine serviceability. You will utilize the appropriate service manuals and specialized tools to support the manufacturer's inspection and repair process. You will inspect crankshafts, connecting rods and piston assemblies, cylinder liners, engine bearings, engine blocks and related engine accessories.

### ENGN 129 Engine Overhaul and Assembly
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
Your studies will focus on the assembly of the internal and external engine components. You will assemble the engine sub-assemblies and complete the engine assembly process. You will utilize the appropriate service manuals and specialized tools to support the manufacturer's inspection and assembly process. You will develop a plan to verify the assembly steps while ensuring quality control. You will perform a post-assembly inspection of the engine prior to ignition and perform operational system checks.

### ENGN 150 Diesel Fuel Systems
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
You will be introduced to the diesel fuel supply systems and how they allow combustion to occur. You will inspect air induction systems, test engine compression, study high and low pressure fuel injection systems, and inspect and repair diesel fuel injectors.

### ENGN 151 Engines
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
You will gain knowledge of engine operation and the use of precision measuring tools. You will develop skills in engine disassembly, component evaluations, measurement and reassembly procedures.
### ENGN 180 Aircraft Engines
Credit Units: 3.0    Course Hours: 45.0
You will study various types of aircraft engines and propellers, including piston and turbine. You will examine general maintenance procedures including entries into aircraft journey logbooks.

### ENGN 183 Diesel Fuel Systems
Credit Units: 2.0    Course Hours: 30.0
You will be introduced to the diesel fuel supply systems and how they allow combustion to occur. You will inspect air induction systems, test engine compression, study high and low pressure fuel injection systems, and inspect and repair diesel fuel injectors.

### ENGN 191 Engines Basics
Credit Units: 4.0    Course Hours: 60.0
You will study the basic physical principles of operation and construction of two-stroke and four-stroke engines. The course content includes cooling systems, components, and coolants. You will also study additives, lubricants, filter systems, oil analysis and safely cleaning components.

### ENGN 192 Engines Fuel Systems
Credit Units: 4.0    Course Hours: 60.0
You will be introduced to diesel fuel supply systems and how combustion occurs. You will inspect air induction systems, test engine compression, study high and low-pressure fuel injection systems, and inspect and repair diesel fuel injectors.

### ENGP 103 Legislation and Codes
Credit Units: 1.0    Course Hours: 15.0
You will review the various provincial, Canadian and American Society of Mechanical Engineers (ASME) legislation and codes related to the construction and operation of boilers, pressure vessels and refrigeration plants.

### ENGP 105 Power Lab 1
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): HEAT 100, SAFE 104, ENGP 106*
You will practice workplace safety. You will operate steam plant systems. You will use boiler controls and test interlocks. You will also practice water testing procedures.

### ENGP 106 Power Lab 2
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): ENGP 105
You will practice workplace safety. You will perform boiler inspection and maintenance in accordance to provincial codes and regulations. You will interpret combustion and draft data.

### ENGP 178 Heating Systems
Credit Units: 2.0    Course Hours: 30.0
You will be introduced to heating boiler terminology, design, operation and government regulations. You will learn about various heating, ventilation and air conditioning (HVAC) systems and the importance of building ventilation. You will also study lighting, water supply and sanitary drainage systems.

### ENGP 180 Power Lab 1
Credit Units: 4.0    Course Hours: 60.0
Equivalent Course(s): PROP 182
You will learn the major components of a steam plant and participate in the start-up of the equipment which is similar to that used in industry. You will also perform water testing and chemical treatment.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</table>
| **ENGP 181 Piping, Valves, Materials and Welding** | Credit Units: 3.0  Course Hours: 45.0  
You will learn about and perform the various types of maintenance tasks required to keep plant equipment functioning in a safe workplace. |
| **ENGP 183 Prime Movers** | Credit Units: 2.0  Course Hours: 30.0  
Your studies will focus on the basics of steam and gas turbine construction and operation. You will also study internal combustion engines and steam engines used in industry. |
| **ENGP 186 Pumps, Compressors, and Lubrication** | Credit Units: 2.0  Course Hours: 30.0  
You will receive an introduction to the characteristics and operation of pumps and compressors. Your studies will include a focus on lubrication, its properties, methods of application and importance to efficient equipment operation. |
| **ENGP 187 Power Lab 2** | Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): ENGP 180  
You will practice your knowledge and skills to manipulate steam production for the purpose of operating turbines, heat exchangers, pumps and auxiliary fuel systems in a functioning high pressure steam lab. |
| **ENGP 188 Plant Operation and Maintenance** | Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): ENGP 181  
You will practice your plant maintenance skills by performing tasks such as shaft alignment and boiler cleaning maintenance and repair. As well, you will study piping systems construction. |
| **ENGP 189 Code Calculations 2** | Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): ENGP 286  
You will learn to use the American Society of Mechanical Engineers (ASME) Section 1 and VIII codes. You will learn to perform calculations needed for repairs and construction of boilers and pressure vessels. |
| **ENGP 190 Boiler and Boiler Systems** | Credit Units: 3.0  Course Hours: 45.0  
You will receive an introduction to boiler terminology, design, operation and government regulations and codes pertaining to boilers. |
| **ENGP 191 Boiler Safety Devices** | Credit Units: 2.0  Course Hours: 30.0  
You will study boiler and fittings code requirements as well as the design and operation of combustion, feedwater and safety controls. |
| **ENGP 280 Refrigeration** | Credit Units: 1.0  Course Hours: 15.0  
Prerequisite(s): RFRG 195  
You will build on the introductory concepts and knowledge that you developed in the 4th Class Refrigeration course. You will focus on industrial applications dealing specifically with compressors, auxiliaries and controls. |
| **ENGP 284 Applied Mechanics (Third Class)** | Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): ENGP 179  
You will focus on theory and calculations applied to the power engineering field. The course content includes mass, force, motion, energy, power, vectors and stress calculations. |
| **ENGP 285 Power Lab 3** | Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): ENGP 187  
You will continue to build your skills by operating plant equipment with an emphasis on computerized control systems. You will have the opportunity to develop your supervisory skills by assuming the role of Chief Engineer in the power lab. The course augments the Boiler Branch requirements for plant experience as qualifying time to challenge the inter-provincial examinations for 3rd Class certification. |
Course Descriptions

ENGP 286 Codes and Calculations 1
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s): ENGP 103
You will investigate the various areas covered by the American Society of Mechanical Engineers (ASME) codes, Canadian Standards Association (CSA) codes and the Provincial Boiler Act and Regulations. You will study and practice ASME code calculations.

ENGP 288 Applied Mechanics (Second Class)
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): ENGP 284
You will apply your knowledge and skills by solving centrifugal force, moments, couples and centroids, torsion, fluid mechanics, flow and orifices as well as weirs problems.

ENGP 289 Power Lab 4
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): ENGP 285
You will study second class power engineer responsibilities in the control and management of a power plant. You will learn to conduct various efficiency tests and will have the opportunity to apply your supervisory skills in the power lab. You will produce power using a steam turbine driven generator.

ENGP 290 Pumps and Compressors
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): ENGP 186
You will study the design and operation of various pumps. You will expand your knowledge of pumping terminology and calculations, air compression and system components.

ENGP 292 Prime Movers and Plant Auxiliaries
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): ENGP 183
You will enhance your skills and knowledge about prime movers used in industry. You will study the internal combustion engines, gas turbines, and steam turbines used in large heating and industrial plants. Cogeneration systems, heat exchangers and fired heaters are also described in this course.

ENGP 295 Metallurgy and Testing of Materials
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): ENGP 103
You will study the structure of various metals and their alloys, heat treatments and the application of these metals in power plants. You will identify the various material defects and the destructive and non-destructive tests used to detect them.

ENGP 296 Industrial Chemistry, Metallurgy and Drawings
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): INST 182, STEA 184, WTER 182
You will study the principles of chemistry, corrosion in industrial operations and how some of these processes will effect metallurgy and materials. You will also learn how to read industrial drawings.

ENGP 297 Combustion, Piping and Plant Management
Credit Units: 2.0  Course Hours: 30.0
You will study second class power engineer responsibilities in the control and management of a power plant. You will learn how to perform calculations and do flue gas analysis required for optimum efficiency in plant operation. You will learn piping design, valve and actuator application, steam trap systems and insulation. You will learn maintenance strategies, fire protection systems and review safety management programs.

ENVR 101 Environmental Science and Technology 1
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): ENVR 440
You will examine the natural world scientifically in an attempt to explain how life on earth is sustained. You will review human population development with its increasing resource requirements. You will study sustainable resource management applied to urban and natural environments including associated risks of hazardous materials. You will take a global perspective using objective risk analysis and environmental ethics.
ENVR 105 Environmental Site Assessment 1
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MEAS 109
Corequisite(s): ENVR 101
You will acquire the knowledge needed to plan, design, organize and implement the first phase of an Environmental Site Assessment (ESA). During the Phase I ESA, you will collect current and historical site information and identify potential and actual environmental concerns associated with the subject site and the adjacent properties.

ENVR 151 Environmental Sustainability
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): ENVR 145
You will study ways to link ecological concerns to individual and community decision making. A key focus will be to work in a small group on issues related to sustainability. Options that recreation and community organizations could use to reduce environmental impact will be explored and strategies will be developed.

ENVR 181 Sampling Techniques
Credit Units: 4.0  Course Hours: 66.0
Prerequisite(s): ENVR 184, CHEM 189, MGMT 190, ENVR 280*
Building on the skills you developed in Environmental Science 2 (ENVR 280) and Radiation Safety, Measurement and Protection (CHEM 189), you will focus on sampling protocol and the use of equipment. Several types of sampling processes are included, each of which have to be mastered over the course of the class. You will learn sampling techniques in surface water, sediments, ground water and air.

ENVR 184 Environmental Science 1
Credit Units: 3.0  Course Hours: 48.0
You will be introduced to the fundamentals of basic science and ecological principles required to understand the potential impacts of various types of pollution. You will also examine advantages and disadvantages of various energy choices.

ENVR 200 Atmospheric Environment
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): ENVR 236, PHYS 102
You will be introduced to the basics of meteorology with a focus on natural and anthropogenic air pollutants, and their properties, sources, and effects on the atmosphere. You will learn how to set up meteorological and air monitoring equipment to test for atmospheric parameters and sample for the criteria air contaminants and other pollutants. The emphasis will be on the utilization of proper sampling protocols and procedures. The laboratory results will be compared to applicable federal and provincial ambient air quality regulations and objectives.

ENVR 203 Liquid and Solid Waste Management
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CHEM 200, HYDO 201, PHYS 102
You will develop an understanding of the design basis of unit treatment processes and networks planning in municipal, industrial, and solid waste fields. Based on the skills you develop, you will design and plan a treatment facility in wastewater or solid waste landfill using best management practices. You will apply your skills in management and planning of domestic and industrial hazardous waste problems, impacts and treatment/disposal.

ENVR 205 Environmental Site Assessment 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): ENVR 105, ENVR 236, CAMP 204*
Corequisite(s): CHEM 201
You will acquire the knowledge needed to plan, design, organize and implement the second phase of an Environmental Site Assessment (ESA). During the Phase II ESA, you will demonstrate field procedures for the investigation of areas of potential environmental concern (APECs). You will design a field investigation plan to locate, sample, identify and monitor the contaminants of concern.

ENVR 206 Energy Resource Management
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): ENVR 101, CHEM 201
You will examine the major components of energy management including supply, demand, regulation and environment. You will explore the concepts and principles behind successful energy management involved in the economic, environmental, and social implications of building operations and systems management. The course will also cover global energy systems, the environmental impacts of alternative energy sources, and Canadian energy issues.
Course Descriptions

ENVR 207 Remediation and Reclamation
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s):    ENVR 205
You will plan, design, organize and implement various types of environmental remediation using the results of your previous Phase I and Phase II Environmental Site Assessments (ESAs). You will use gathered information and knowledge in the application of remediation techniques including bioremediation, barrier systems, mechanized systems, and excavations. You will also explore soil and vegetation reclamation and restoration of Prairie ecosystems impacted by industrial and other human processes including the stabilization of soils and slopes, identification and selection of native plant species; and reclamation of riparian areas. Fundamentals of equivalent land capability, end-use planning, and the development of a reclamation plan are included.

ENVR 226 Site Assessment and Remediation
Credit Units: 6.0    Course Hours: 96.0
Prerequisite(s):    HYDO 225
Corequisite(s):    ENVR 236
You will acquire the knowledge needed to plan, design, organize and implement an Environmental Site Assessment (ESA). During the first phase, you will collect current and historical site background information and identify potential environmental concerns. During the second phase, you will sample, test, monitor, identify, and locate the contaminants. During the third phase, you will evaluate the risk assessment and select the proper site remediation technology.

ENVR 227 Waste Management
Credit Units: 6.0    Course Hours: 96.0
Prerequisite(s):    ENVR 235, ENVR 231, HYDO 225
The course content includes the methods of classification, handling, transportation and disposal of municipal, biomedical and dangerous waste material. You will study pollution prevention models and techniques, constraint mapping, landfill site selection and landfill design layout. Your fieldwork will include developing waste minimization and waste characterization plans.

ENVR 228 Environmental Management
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s):    ENVR 101, CHEM 201
You will study the environmental project management elements of environmental liability, accountability and due diligence in terms of risk assessment and risk management, Occupational Health and Safety, and emergency response planning. You will learn how to apply environmental management systems using the International Organization for Standardization (ISO 14000 series).

ENVR 229 Environmental Impact Assessment
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s):    ENVR 235, ENVR 236, HYDO 202
You will learn about the evolution of the environmental impact assessment process in Canada and in particular, Saskatchewan. The environmental impacts associated with various industry activities will be explored. The components of an Environmental Impact Statement will be reviewed. You will learn how to evaluate an area for environmental sensitivities and how to mitigate potential impacts of proposed activities. You will complete several exercises that will assist in the preparation of a preliminary environmental impact report or environmental protection plan.

ENVR 231 Environmental Control
Credit Units: 5.0    Course Hours: 80.0
Prerequisite(s):    MAT 246, HYDO 225
Corequisite(s):    ENVR 236, WTER 226
The course provides an introduction to various industrial processes and manufacturing that may cause pollutants as a by-product. You will learn how to identify, describe and apply design criteria and calculations to the selection of pollution control techniques and abatement equipment. Using dispersion modelling for air, water, groundwater and ground permeation, you will conduct the prediction of pollution.
## Course Descriptions

### ENVR 232 Environmental Engineering
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): WTER 231

You will be introduced to environmental site assessments (ESA) and environmental impact assessment (EIA) including their components, processes and applicable regulations. You will study the effects of engineering projects and human activities on the biophysical and human environment. You will illustrate the aims and objectives of an EIA as they pertain to Canada and Saskatchewan. Emphasis will be placed on the stages of an EIA, which includes proposals, screening, scoping through to monitoring and compliance.

### ENVR 233 Environmental Monitoring
Credit Units: 3.0  
Course Hours: 48.0  
Prerequisite(s): MEAS 106, COAP 108, PHYS 102  
Corequisite(s): HYDM 221

You will receive an introduction to measuring and monitoring environmental pollutants. Ambient air, indoor air and noise will be emphasized. You will receive practical hands-on experience in the lab using standard methods and procedures to record, operate and maintain equipment to sample, test and monitor ambient conditions and pollutants. You will analyze data for compliance to environmental regulatory acts, regulations, standards, policies and guidelines. You will also assess the proper air pollution control equipment for industrial processes.

### ENVR 234 Environmental Ecology 1
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): ENVR 101, MEAS 109, SOIL 102

You will cover the spatial and temporal variation and evolution of life. You will study energy flow and productivity, nutrient cycles, and limnology. You will be introduced to the classification of organisms based on taxonomy and of ecosystems based on ecoregion classification.

### ENVR 235 Environmental Ecology 2
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): ENVR 234

You will build on concepts introduced in previous courses. You will learn about terrestrial and aquatic ecology to assess land management practices and interpret water quality. You will explore the factors that influence the distribution of life and the competitive forces that impact population growth.

### ENVR 236 Environmental Monitoring
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): ENVR 101, MEAS 109, SOIL 102  
Corequisite(s): CHEM 200

You will be introduced to the formation, taxonomy, and chemical properties of soils. You will learn about the relationships between terrestrial, riparian and aquatic environments. You investigate various protocols to monitor and assess the health of each environment. Emphasis will be placed on demonstrating safe practices for outdoor field activities and laboratory settings. You will learn about the risks of various substances to environmental and human health.

### ENVR 280 Environmental Science 2
Credit Units: 6.0  
Course Hours: 90.0  
Prerequisite(s): ENVR 184

Building on the skills you developed in Environmental Science I (ENVR 184), you will be provided an understanding of the environmental impacts of pollution. Your studies will include gas, liquid, and solid pollutants; air, water, and noise pollution; government legislation and policy; and methods of monitoring and protection. Relevant provincial and federal legislation will be examined.

### ENVR 281 Water Treatment & Distribution
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): ENVR 280  
Corequisite(s): ENVR 181, MATH 298

You will focus on the basics of conventional water treatment. You will learn the processes of surface water treatment, reservoir management, coagulation and flocculation, sedimentation, filtration, disinfection, taste and odor control, and corrosion control. You will focus on the proper installation, inspection, operation, maintenance and repair of water distribution systems.

### ENVR 290 Environmental Monitoring
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): LABT 154

You will be introduced to the fundamentals of the environment, its monitoring and management. You will examine the technology available for environmental soil and air monitoring. You will develop hands-on skills by performing air and soil monitoring analyses as a laboratory component. You will also learn some specific topics in the area of soil chemistry and toxicology.

Register online at saskpolytech.ca or call 1-866-467-4278
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVR 401</td>
<td>Environmental Science and Technology 2</td>
<td>3.0</td>
<td>45.0</td>
<td>ENVR 441</td>
<td>You will study pollution prevention and mitigation technology. You will also develop environmental management strategies for agriculture, oilfield, mining and pulp and paper operations.</td>
</tr>
<tr>
<td>ENVR 402</td>
<td>Environmental Sampling</td>
<td>4.0</td>
<td>60.0</td>
<td>ENVR 442</td>
<td>You will perform environmental compliance and inspection-related sampling activities. You will develop the skills needed for collecting legal samples of soil, sediments, air and liquids. You will include safety measures with the sampling activities.</td>
</tr>
<tr>
<td>EQPT 103</td>
<td>Fabrication Equipment</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td>The course covers the proper use and maintenance of the hand tools and the shop equipment used in welding and fabricating shops in industry.</td>
</tr>
<tr>
<td>EQPT 104</td>
<td>Raise Bore Drill Parts</td>
<td>5.0</td>
<td>70.0</td>
<td>MINE 105</td>
<td>You will receive an introduction to the parts of the six component assemblies of a raise bore drill and learn the purpose of each component.</td>
</tr>
<tr>
<td>EQPT 105</td>
<td>Drill String and Wrenching System</td>
<td>10.0</td>
<td>150.0</td>
<td>EQPT 106</td>
<td>The course covers the components and purpose of the Drill String and Wrenching System and the safe use of wrenching tools.</td>
</tr>
<tr>
<td>EQPT 106</td>
<td>Drill Console and Pendant Controls</td>
<td>5.0</td>
<td>80.0</td>
<td>EQPT 104</td>
<td>You will practice operating controls on the drill console. You will study the function of switches, gauges, valves and warning lights on the primary control console and the portable control pendants (consoles). You will also learn safe operating procedures.</td>
</tr>
<tr>
<td>EQPT 107</td>
<td>Equipment Setup and Takedown</td>
<td>8.0</td>
<td>120.0</td>
<td>EQPT 105</td>
<td>You will become familiar with the procedures required to safely and efficiently move, setup, takedown and store a raise bore drill.</td>
</tr>
<tr>
<td>EQPT 108</td>
<td>Tools and Equipment</td>
<td>1.0</td>
<td>15.0</td>
<td>EQPT 189</td>
<td>You will learn the principles and procedures for safely and efficiently using a wide range of kitchen equipment and tools.</td>
</tr>
<tr>
<td>EQPT 109</td>
<td>Tools and Equipment</td>
<td>6.0</td>
<td>96.0</td>
<td></td>
<td>You will learn how to select, use and maintain a wide variety of hand tools and non-power equipment. You will also learn how to operate and maintain portable electric tools, pneumatic tools, powder actuated tools, cutting torches and stationary power tools.</td>
</tr>
<tr>
<td>EQPT 111</td>
<td>Tools and Equipment</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>You will focus on the use and care of hand tools, power tools, and various equipment used in the trade. The safe use of Powder Actuated Tools will be discussed. You will also learn about basic rigging and hoisting techniques.</td>
</tr>
<tr>
<td>EQPT 112</td>
<td>Tools</td>
<td>1.0</td>
<td>18.0</td>
<td></td>
<td>You will learn how to select, use and maintain a wide variety of hand tools and non-power equipment. You will also learn how to operate and maintain portable electric tools, pneumatic tools, and powder actuated tools.</td>
</tr>
<tr>
<td>EQPT 113</td>
<td>Equipment Operation and Maintenance</td>
<td>3.0</td>
<td>39.0</td>
<td>EQPT 170</td>
<td>You will learn the function and operation of component parts, and regular service and maintenance procedures. You will learn how to operate, service and maintain various types of construction trucks and construction equipment. You will work at a construction site to gain experience in operating construction trucks and a variety of earth-moving equipment.</td>
</tr>
</tbody>
</table>

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## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQPT 116</td>
<td>Layout and Template Development</td>
<td>3.0</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>You will develop skills in layout and template development. You will learn how to use geometric construction to layout two-dimensional figures.</td>
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</tr>
<tr>
<td>EQPT 117</td>
<td>Layout and Fitting</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will apply your layout, fitting and tacking skills in shop projects.</td>
<td></td>
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</tr>
<tr>
<td>EQPT 118</td>
<td>Metal Working Equipment</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will use metal working and fabrication equipment to cut, bend and form metal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EQPT 126</td>
<td>Tools</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Corequisite(s): PROJ 122</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>You will learn how to select and properly use a wide variety of hand tools, portable power tools and stationary tools and equipment. You will also learn how to identify and use powder actuated tools.</td>
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</tr>
<tr>
<td>EQPT 131</td>
<td>Photography in Resource Management</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>You will study a variety of photographic techniques in resource management and resource enforcement. You will create digital images and videos to be integrated into documentation.</td>
<td></td>
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</tr>
<tr>
<td>EQPT 161</td>
<td>Equipment Operation and Maintenance</td>
<td>3.0</td>
<td>39.0</td>
</tr>
<tr>
<td></td>
<td>You will learn how to operate, service and maintain various types of construction trucks and construction equipment. Your studies will focus on the function and operation of component parts and regular service and maintenance procedures. You will work at a construction site to gain experience in operating construction trucks and a variety of earth-moving equipment.</td>
<td></td>
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</tr>
<tr>
<td>EQPT 162</td>
<td>Seeding and Tillage Equipment</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will learn the terminology and theory of basic machinery components, including belt and chain drives, ratios, power takeoffs, and gear drives. You will become familiar with the theory of operation for tillage and seeding equipment and global positioning systems (GPS) as it applies to variable rate seeding technology. You will learn to pre-deliver and service air seeder carts, seeding tools and tillage equipment. You will apply theory knowledge to practical applications for seeding and tillage component repairs.</td>
<td></td>
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</tr>
<tr>
<td>EQPT 173</td>
<td>Seeding and Tillage Equipment</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will learn the terminology and theory of basic machinery components, including belt and chain drives, ratios, power takeoffs, and gear drives. You will become familiar with the theory of operation for tillage and seeding equipment and global positioning systems (GPS) as it applies to variable rate seeding technology. You will learn to pre-deliver and service air seeder carts, seeding tools and tillage equipment. You will apply theory knowledge to practical applications for seeding and tillage component repairs.</td>
<td></td>
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</tr>
<tr>
<td>EQPT 191</td>
<td>Warehouse Equipment and Uses</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>You will identify tools and equipment used in a warehouse and demonstrate their proper use and maintenance.</td>
<td></td>
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</tr>
<tr>
<td>EQPT 194</td>
<td>Seeding and Tillage Equipment</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will learn the theory of operation for seeding and tillage equipment and satellite-based Global Positioning Systems (GPS) as it applies to guidance, variable rate and section control seeding technology. You will explore the pre-delivery inspection process and service precision seeding equipment. You will develop troubleshooting skills by applying the operational theory of precision seeding equipment to practical applications. You will learn how to work safely when exposed to anhydrous ammonia applicators.</td>
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</tr>
</tbody>
</table>
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQPT 196</td>
<td>EQPT 196 Harvesting Equipment</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will learn the theory of operation for harvesting equipment and related attachments. You will explore the operation of satellite-based Global Positioning Systems (GPS) and how it applies to harvesting equipment. You will explore the practical applications of a combine inspection, assessment, servicing and adjusting harvesting equipment and components.</td>
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<td></td>
</tr>
<tr>
<td>EQPT 197</td>
<td>EQPT 197 Hay and Forage Equipment</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will study the operating principles and service and repair processes of hay and forage equipment. You will explore how to perform a complete machine inspection and develop a repair plan. You will learn how to adjust, service and repair forage and haying equipment.</td>
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</tr>
<tr>
<td>EQPT 198</td>
<td>EQPT 198 Sprayers and Applicators</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will focus on the set-up and pre-delivery of self-propelled and pull-type field sprayers. The course content includes the theory of operation, service, repair and calibration of spray systems and components.</td>
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</tr>
<tr>
<td>EQPT 199</td>
<td>EQPT 199 Pre-Delivery and Performance</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will learn the process of the pre-delivery setup and inspection of tractors. You will focus on setting the machine to manufacturer's specifications, tractor appearance, installing accessories, tractor ballasting, and tractor and engine performance.</td>
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<td></td>
</tr>
<tr>
<td>EQPT 202</td>
<td>EQPT 202 Sprayers/Applicators-Shop</td>
<td>1.0</td>
<td>14.0</td>
</tr>
<tr>
<td></td>
<td>You will learn to service, repair and calibrate spray systems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EQPT 401</td>
<td>EQPT 401 Small Motors</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>You will learn how to use chainsaws in a field setting. This will include proper cutting techniques and safety procedures.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTH 100</td>
<td>ESTH 100 Introduction to Skin Care and Makeup Techniques</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>You will review a variety of methods and procedures that relate to preserving, maintaining and enhancing the skin. You will practice techniques in eyebrow arching, waxing, and brow and lash tinting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESTH 101</td>
<td>ESTH 101 Foundations of Esthetics</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will explore sciences as they relate to esthetics. The course content includes chemistry, physics, anatomy and physiology, trichology, nutrition and metric conversion. You will examine communication skills for estheticians.</td>
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</tr>
<tr>
<td>ESTH 102</td>
<td>ESTH 102 Skin Care Techniques</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): ESTH 101*, SANT 110*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>You will focus on a variety of methods and procedures that relate to preserving, maintaining and enhancing the skin. You will practice techniques in skin analysis, eyebrow arching, plain and specialized facials. You will study skin diseases and disorders to assist you in selecting the most beneficial skin care products to suit the skin condition.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESTH 103</td>
<td>ESTH 103 Make-up Artistry</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): ESTH 102*</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>You will learn how to use makeup techniques to enhance a client's facial features. You will be introduced to the various looks that are created by make-up artists for theatrical, corrective, and camouflage purposes. In addition, you will learn how to apply the theory of colour, enhance eye brows and lashes, consult with a client, and choose suitable product.</td>
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<td></td>
</tr>
<tr>
<td>ESTH 104</td>
<td>ESTH 104 Machine Applied Facial and Body Treatments</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): ESTH 101*, ESTH 102*, SANT 110*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>You will obtain and analyze essential data from the client through client consultation in order to make accurate decisions about recommended services. You will learn how to use technical tools to perform specialized facial treatments.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ESTH 105 Esthetics Treatments and Massage
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s):  ESTH 101*, ESTH 102*, SANT 110*
Your studies will focus on identifying skin conditions relating to the rapidly growing field of spa body treatments and cosmetic massage. You will learn how to combine both medical spa treatment and home care regime to treat these conditions.

ESTH 106 Advanced Sciences and Clinical Skin Care
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s):  ESTH 105*
You will gain a better understanding of basic chemical reaction that take place in the skin. Your studies will include information about new skin ingredients such as serums and polymers. You will learn how to cooperate with physicians to complement client care. Your studies will focus on protocols, advanced treatments, patient education, product knowledge, and counter indications.

ESTH 107 Epilation
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s):  ESTH 101*, SANT 110*
You will learn the hair removal procedures and techniques an Esthetician is expected to know.

ESTH 108 Lash Extensions
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s):  SANT 110*
Describe and demonstrate the application of temporary eyelash enhancements, semi permanent eyelash enhancements, and permanent eyelash extensions.

ESTM 400 Construction Cost Estimating and Procurement
Credit Units: 3.0    Course Hours: 45.0
You will learn how to estimate costs for a construction project and prepare a bid based on that estimate.

ETHC 140 Ethics in Mental Health and Addictions
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s):  CDEP 177
You will examine the purpose and ethical basis for being a skilled helper with particular emphasis in the addictions industry. You will be introduced to the Problem Management Approach to Helping. You will learn how to apply the codes of ethics and confidentiality in the human services industry, notably the addictions industry.

ETHC 181 Patient Care in Radiography 1
Credit Units: 2.0    Course Hours: 37.0
Prerequisite(s):  INFC 180
You will learn the radiographer’s role in basic patient care when performing medical imaging procedures. You will learn about documentation in health care, isolation and transmission based precautions, and assessment of patients’ physical status. You will apply transferring techniques and learn about patient personal care assistance, identification of emergency procedures and recognition of basic medical accessory equipment.

ETHC 182 Patient Care in Radiography 2
Credit Units: 2.0    Course Hours: 36.0
Prerequisite(s):  ETHC 181
You will learn the radiographer’s role in patient care when performing advanced medical imaging procedures involving surgical asepsis, medication administration, intravenous therapy and contrast media administration.

ETHC 184 Jurisprudence and Ethics
Credit Units: 3.0    Course Hours: 45.0
Equivalent Course(s):  ETHC 184CE
You will gain an understanding of the acts, bylaws and regulations that govern funerals. The course will also include information about the professional and ethical practices that are important in this profession.
# Course Descriptions

<table>
<thead>
<tr>
<th>ETHC 185 Professional Practices 1</th>
<th>EXFN 221 Exterior Windows and Doors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit Units</strong>: 3.0 <strong>Course Hours</strong>: 42.0</td>
<td><strong>Credit Units</strong>: 1.0 <strong>Course Hours</strong>: 15.0</td>
</tr>
<tr>
<td><strong>Equivalent Course(s)</strong>: ETHC 185CE, HUMR 182</td>
<td><strong>You will learn the installation procedures for exterior windows and doors.</strong></td>
</tr>
<tr>
<td>You will receive an introduction to health care and health care delivery systems. You will study the legal and ethical issues faced by health care professionals. You will discuss interpersonal and employability skills required in health care professions with an emphasis on teamwork, communication and stress management. You will learn methods to deal with grief and loss, in addition to skills and techniques for critical thinking and conflict management.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ETHC 280 Professional Practices 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit Units</strong>: 2.0 <strong>Course Hours</strong>: 30.0</td>
<td><strong>F</strong></td>
</tr>
<tr>
<td>You will study health care organizational behaviour and the skills required for leadership/management roles. You will discuss cooperative work relationships, conflict resolution, budgeting, strategic planning, the collective bargaining process and workload measurements. You will develop workplace documents and demonstrate job search techniques.</td>
<td><strong>FEMT 301 Botany</strong></td>
</tr>
</tbody>
</table>

| **Credit Units**: 3.0 **Course Hours**: 45.0 | **Credit Units**: 3.0 **Course Hours**: 45.0 |
| **Equivalent Course(s)**: FEMT 410, FORE 342 | **You will describe the processes of plant life from the cellular level, growth and reproduction, photosynthesis, respiration, fluid translocation and germination. You will identify a plant's contribution to society and the ecosystem with emphasis on forestry plants. You will also identify some physical properties of wood.** |

<table>
<thead>
<tr>
<th>ETHC 300 Professional Ethics and Sustainable Development</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit Units</strong>: 3.0 <strong>Course Hours</strong>: 45.0</td>
<td><strong>FEMT 400 Forest Health</strong></td>
</tr>
<tr>
<td>You will learn the appropriate approach to sensitive ethical and environmental issues pertaining to construction. You will examine sustainable development practices that minimize the impact of construction projects on the environment and maximize energy efficiency.</td>
<td><strong>Credit Units</strong>: 2.0 <strong>Course Hours</strong>: 30.0</td>
</tr>
<tr>
<td><strong>You will describe and identify general pest, disease, climatic and pollution damage agents that represent forest health concerns in Saskatchewan.</strong></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXFN 220 Exterior Finishes and Accessories</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit Units</strong>: 2.0 <strong>Course Hours</strong>: 30.0</td>
<td><strong>FILM 164 Set Protocol and Set Safety</strong></td>
</tr>
<tr>
<td>You will learn procedures for constructing cornices and installing exterior finishes.</td>
<td><strong>Credit Units</strong>: 1.0 <strong>Course Hours</strong>: 15.0</td>
</tr>
<tr>
<td><strong>Equivalent Course(s)</strong>: FILM 164CE</td>
<td><strong>You will learn about the scope of practice for each occupation within film, video and new media, reporting structures and union regulations. You will also study health and safety as it relates to a production set.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIN 100 Personal Finance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit Units</strong>: 4.0 <strong>Course Hours</strong>: 64.0</td>
<td><strong>FIN 100 Personal Finance</strong></td>
</tr>
<tr>
<td><strong>Equivalent Course(s)</strong>: FIN 100CE</td>
<td><strong>You will explore many concepts related to planning and managing personal finances. You will develop the knowledge and decision-making tools to help you make sound financial decisions and/or provide advice to others. Your studies will introduce concepts in banking, deposit accounts, investing, tax and retirement planning. You will explore the uses and misuses of personal credit and review the importance of insurance and estate planning. You will be able to apply the skills and knowledge that you develop in a wide variety of real world situations.</strong></td>
</tr>
</tbody>
</table>

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## Course Descriptions

**FIN 202 Financial Products and Services**  
Credit Units: 6.0  
Course Hours: 96.0  
Excellent product knowledge is central to relationship banking. You will develop a solid understanding and knowledge of financial products and services. Your understanding will enable you to differentiate among products, to compare products and, to fully explain products to individual clients. You will also acquire the foundation you need to keep informed about trends and market innovations in retail products and services. The second component of the course relates to consumer lending in a bank setting. Topics include types of consumer credit, credit investigation, and collateral. All topics are dealt with in the context of a financial institution. Training exercises, role plays, and cases that personal bankers experience are used in this course.

**FIN 220 Finance**  
Credit Units: 5.0  
Course Hours: 80.0  
Prerequisite(s): ACCT 122  
Equivalent Course(s): ACP 475, FIN 220CE  
You will become familiar with the role of finance and its implication for risk, income and control, credit conditions and a firm's state of liquidity. You will examine sources of capital and corporate borrowing, cost of capital theory and optimal capital structure, and capital budget decision making.

**FIN 225 Relationship Building**  
Credit Units: 5.0  
Course Hours: 80.0  
You will develop techniques to improve your presence and effectiveness in client interactions by applying the key elements of the communication process. You will learn communication modes, perceptions and techniques, including body language. You will learn to tailor these communication applications to the reality of the financial services industry.

**FIN 227 Financial Institution Operations**  
Credit Units: 4.0  
Course Hours: 64.0  
Your studies begin with an examination of the transactional systems in financial institutions associated with financial products and services. Subsequently, your studies will focus on the managerial systems. You will review the rapid pace of change in the financial industry and explore future directions. You will examine internal policies and procedures which serve to ensure consistency and security through standardized practices. You will examine the crucial role that the financial industry plays in our economy.

**FIN 232 Strategic Financial Advising**  
Credit Units: 5.0  
Course Hours: 80.0  
Prerequisite(s): FIN 202, FIN 225  
You will develop an efficient and effective response to a client's needs for financial services which is the ultimate goal of relationship banking. The course is designed to help develop you as a professional by providing you with the level of knowledge and skills necessary to match the client's financial needs and objectives to financial products and services. You will develop the competence to successfully complete business transactions and ultimately, you will achieve the level of competence required by financial services professionals.

**FIN 235 Tax Fundamentals**  
Credit Units: 4.0  
Course Hours: 64.0  
Equivalent Course(s): TAX 221  
You will learn the fundamentals of personal taxation that include calculating income, deductions, taxable income, and tax payable. The culmination of these steps is the actual preparation of personal tax returns.

**FIN 241 Investment Funds in Canada (IFC) Prep**  
Credit Units: 6.0  
Course Hours: 96.0  
You will develop the required skills and knowledge to advise clients about their mutual fund investments based on their objectives, timeline and risk tolerance. Your studies will include these topics: a mutual fund representative’s legal, ethical, and professional responsibilities. You will learn about the financial markets, the mutual fund industry, your role as a mutual fund sales representative, and different types of mutual funds. You will also gain an understanding in the importance of the “Know Your Client” rule and how to apply it. You will learn the risk-return relationship of investments as well as be able to explain the process of creating and managing investment portfolios that meets client’s needs. You’ll gain an understanding of the different types of mutual funds. Finally, you will be able to assess mutual fund’s performance and fee structure and be able to explain these features to a client. Upon successful completion of the course, you will be eligible to write the licensing exam for the sale of mutual funds in the Canadian marketplace.

**FIN 281 Financial Management**  
Credit Units: 2.0  
Course Hours: 30.0  
Prerequisite(s): ACCT 191*  
The course provides an introduction to analyzing and interpreting financial statements for management decision making. You will acquire financial management skills related to the successful management of a small business or department of a larger business.

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## FIN 400 Finance
Credit Units: 3.0  Course Hours: 45.0
You will study the basic components of modern corporate and personal finance. Your studies will include the following topics: accounting, time value of money, shares, debt instruments including bonds and debentures, valuations, interest calculations, and rate of return.

## FIN 600 Finance
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): ACCT 600
You will become familiar with the role of finance and its implication for risk, income and control, credit conditions and a firm’s state of liquidity. You will examine sources of capital and corporate borrowing, cost of capital theory and optimal capital structure, and capital budget decision making.

## FIRE 101 Wildland Fire Fundamentals
Credit Units: 3.0  Course Hours: 45.0
You will apply wildland fire management fundamentals including fire detection, assessment and reporting, fire safety and organization, fire weather, fire behaviour as well as response planning systems. You will participate in field exercises in fire pump set-up, hose handling, sprinkler system set-up, two-way radio communication and the use of hand tools and fire foam. A simulation exercise in basic fire tactics is integral to the course.

## FIRE 180 Fire Safety
Credit Units: 1.0  Course Hours: 10.0
You will become familiar with common fire regulations and different types of fires and fire extinguishers.

## FIRE 400 Fire Prevention Techniques and Fire Ecology
Credit Units: 2.0  Course Hours: 30.0
You will examine the dangers from wildfire associated with living in wildland/urban interface areas. Your studies will focus on mitigation techniques that can be applied through public and local government involvement. Your field exercises will include the completion of hazard reduction plans for wildland/urban interface areas. As well, you will assess the ecological role of wildland fires.

## FIRE 404 Arson Investigation
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): FIRE 101*
Equivalent Course(s): FIRE 584
You will apply the principles of arson investigation in a forestry context.

## FISH 301 Aquatic Ecology
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CAMP 305*
You will learn about freshwater aquatic ecology. You will safely sample and interpret water quality of nearby waterbodies. You will become familiar with fish anatomy and learn how to identify fish species and aquatic invertebrates inhabiting Saskatchewan waters.

## FISH 402 Aquatic Surveys
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CAMP 412*
You will acquire the knowledge and skills needed to survey and summarize the physical, chemical and biological components of lakes and streams.

## FISH 403 Advanced Aquatic Surveys
Credit Units: 3.0  Course Hours: 45.0
You will be introduced to advanced topics in aquatic habitat sampling and interpretation. You will acquire the knowledge and skills needed for biomonitoring sampling, electrofishing, and fish population surveys. You will also be introduced to fish stress and advanced fish handling procedures such as tagging and surgery.

## FISH 404 Fisheries Management
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): FISH 446
You will be introduced to legislation and fisheries management principles as they apply to protecting fish habitat and fisheries resource utilization. You will become familiar with fish parasites and disease, the steps involved in conducting fish kill investigations, aquatic invasive species, and enforcement.

## FISH 405 Current Topics in Fisheries
Credit Units: 1.0  Course Hours: 15.0
You will study biological components of fisheries management and critique current issues in fish and fish habitat management.
## FMEC 200 Fluid Mechanics
Credit Units: 4.0  Course Hours: 60.0

Prerequisite(s):  ENGM 100
Corequisite(s):  FMEC 201
Equivalent Course(s):  FMEC 288

You will gain expertise in assessing and utilizing fluid properties such as temperature, pressure, density and viscosity in evaluating the behaviour of flowing and non-flowing fluids. The forces exerted on bodies and surfaces due to non-flowing fluids (fluid statics) and the characteristics of fluids in motion along with any resulting energy changes (fluid dynamics) will be examined. You will develop competency in analyzing simple pipe networks, classification and selection of associated mechanical equipment (pumps, blowers, etc.), and the principles of fluid flow measurement.

## FMEC 201 Fluid Mechanics Lab
Credit Units: 1.0  Course Hours: 15.0

Prerequisite(s):  ENGM 100

Your knowledge of the basic fundamentals of fluid mechanics will be enhanced through lab work. You will experience the fundamentals of fluid mechanics and fluids under static or dynamic conditions in closed conduits and open channels in a lab setting. You will develop competence analyzing fluid mechanics problems using lab results and derive equations or prove the existing equations.

## FMEC 288 Fluid Mechanics
Credit Units: 5.0  Course Hours: 77.0

Corequisite(s):  ENGM 191
Equivalent Course(s):  HYDR 285

You will gain expertise in assessing and utilizing fluid properties such as temperature, pressure, density and viscosity in evaluating the behaviour of flowing and non-flowing fluids. The forces exerted on bodies and surfaces due to non-flowing fluids (fluid statics) and the characteristics of fluids in motion along with any resulting energy changes (fluid dynamics) will be examined. You will develop competency in analyzing simple pipe networks, classification and selection of associated mechanical equipment (pumps, blowers, etc.), and the principles of fluid flow measurement.

## FMLY 181 Family Dynamics
Credit Units: 3.0  Course Hours: 45.0

Equivalent Course(s):  FMLY 181CE

You will examine the dynamics of the Canadian family, the influence of family structure on the individual’s values and the mental, cultural and physical challenges faced by the families of today.

## FNDT 120 Foundations
Credit Units: 4.0  Course Hours: 60.0

You will learn how to construct and install formwork for footings, grade beams, and slabs-on-grade. Various types of concrete formwork will be covered as well as procedures for installing reinforcing materials, miscellaneous inserts, and anchor bolts. Procedures for constructing permanent wood foundations will also be covered.

## FNRL 180 Restorative Art
Credit Units: 3.0  Course Hours: 45.0

Prerequisite(s):  APHY 189, COM 101, COMM 291, ETHC 184, MICR 185, NAST 102, PD 143, ORTN 199, (PRAC 176 or LEAD 180), PATH 186*, FNRL 182*, PRAC 277*

Equivalent Course(s):  FNRL 180CE

You will study restorative art processes using appropriate cosmetics, instruments and appliances. You will also examine processes for the difficult and autopsied cases.

## FNRL 181 Arrange Funerals
Credit Units: 2.0  Course Hours: 30.0

Prerequisite(s):  COAP 178, COM 101, COMM 291, ETHC 184, LEAD 180, NAST 102, PD 143, ORTN 199, PRAC 176, PSYC 160, PSYC 280, WORK 192

Equivalent Course(s):  FNRL 181CE

You will gain an understanding of the processes involved in funeral services arrangements. You will also study memorialization options, processes for transportation and prearranging services.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNRL 182</td>
<td>Embalming 1</td>
<td>3.0</td>
<td>45.0</td>
<td>APHY 189, COM 101, COMM 291, ETHC 184, MICR 185, PD 143, ORTN 199, (PRAC 176 or LEAD 180), WORK 192, PATH 186*, FNRL 180*, PRAC 277*</td>
<td>FNRL 182CE</td>
<td>You will gain an understanding of the various types of embalming processes for the normal case.</td>
</tr>
<tr>
<td>FNRL 183</td>
<td>Embalming 2</td>
<td>2.0</td>
<td>30.0</td>
<td>FNRL 182</td>
<td>FNRL 183CE</td>
<td>Building on your studies from Embalming 1 you will study embalming procedures used in both normal, difficult and autopsied cases.</td>
</tr>
<tr>
<td>FNRL 281</td>
<td>Direct Funerals</td>
<td>2.0</td>
<td>30.0</td>
<td>FNRL 181*</td>
<td>FNRL 281CE</td>
<td>You will examine the organization and direction of funeral services and visitations. You will also explore the various support services available.</td>
</tr>
<tr>
<td>FNRL 282</td>
<td>Business Practices and Processes in the Funeral Service Industry</td>
<td>3.0</td>
<td>45.0</td>
<td>APHY 189, COAP 171, COM 101, COMM 291, COMP 172, COMP 179, ETHC 184, MICR 185, MTER 180, ORTN 199, PRAC 176, PSYC 160, PSYC 280, PSYC 281, WORK 192</td>
<td>FNRL 282CE</td>
<td>You will study business practices pertinent to the funeral service industry. Particular consideration will be paid to funeral home budgets and financial statements, funeral service merchandising and sales, costing and pricing, advertising, and applicable federal and provincial regulations.</td>
</tr>
<tr>
<td>FOOD 100</td>
<td>Quantity Food Production</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td></td>
<td>You will be involved in preparing, producing and servicing foods in quantity. You will be exposed to volume cooking and service techniques for meat, poultry, seafood, vegetables, starches, soups, and sauces.</td>
</tr>
<tr>
<td>FOOD 102</td>
<td>Short Order Food Production</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td>COOK 197</td>
<td>You will prepare a variety of meals and food items appropriate for a short order cooking environment. You will integrate a wide range of skills you have learned in previous courses.</td>
</tr>
<tr>
<td>FOOD 103</td>
<td>Quantity Food Production</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td></td>
<td>You will prepare foods in quantity. You will perform in a safe manner and comply with sanitation legislation. You will be required to adhere to portion and quality controls for all types of food preparation.</td>
</tr>
<tr>
<td>FOOD 104</td>
<td>Quantity Meat Preparation</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td>COOK 197</td>
<td>You will be exposed to volume cooking and service techniques for meat, poultry, fish and seafood. You will use a variety of cooking techniques to prepare meals using these meats.</td>
</tr>
<tr>
<td>FOOD 105</td>
<td>Quantity Preparation of Vegetables and Starches</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td>You will be exposed to volume cooking and service techniques for potatoes, vegetables, starches and pasta. You will use a variety of cooking techniques to prepare meals using these ingredients.</td>
</tr>
<tr>
<td>FOOD 106</td>
<td>Quantity Preparation of Soups and Sauces</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td>You will be exposed to volume cooking and service techniques for soups and sauces. You create a variety of soups and sauces in large quantities.</td>
</tr>
</tbody>
</table>

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## Course Descriptions

### FOOD 107 Aboriginal Cuisine
Credit Units: 1.0  Course Hours: 15.0
You will learn how to adapt menus to incorporate Aboriginal cuisine.

### FOOD 170 Basic Food Preparation
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): SANT 181*
You will learn how to prepare a variety of foods using the tools, equipment and techniques common to professional kitchens. You will acquire an understanding of the basic culinary terms and cooking principles. You will also learn a safety management system that reduces the risk of injuries occurring on the job.

### FOOD 171 Catering
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): FOOD 170*
You will plan and prepare a catering event. Food presentation, cost control and proper food handling techniques will be emphasized.

### FOOD 172 Customer and Restaurant Service Techniques
Credit Units: 4.0  Course Hours: 60.0
You will develop skills in the procedures used in the service of food and beverage. You will have the opportunity to practice customer relations skills as they apply to a service setting.

### FOOD 182 Cold Foods
Credit Units: 3.0  Course Hours: 30.0
Prerequisite(s): FOOD 189, SFTY 192
Equivalent Course(s): CKNG 101, CKNG 102, FOOD 100
You will learn how to prepare salads and sandwiches following established standards of quality and quantity. Food presentation, cost control and proper food handling techniques will be emphasized.

### FOOD 183 Principles of Food Preparation
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): FOOD 170*
You will learn to analyze specific food composition characteristics, apply food science principles and evaluation standards involved with the preparation of basic foods.

### FOOD 189 Basic Food Preparation
Credit Units: 3.0  Course Hours: 50.0
Prerequisite(s): SANT 181*, SFTY 192
Equivalent Course(s): CKNG 110
In a lab setting, you will learn how to prepare a variety of foods using the tools, equipment and techniques common to professional kitchens. You will acquire an understanding of the basic culinary terms and cooking principles used on a daily basis in commercial kitchens. You will also develop recognition of and an appreciation for the quality standards used to evaluate raw food products and finished menu items.

### FOOD 190 Fundamentals of Restaurant Service
Credit Units: 3.0  Course Hours: 45.0
You will develop skills in the procedures used in the service of food and beverage. You will have the opportunity to practice customer relations skills as they apply to a restaurant setting.

### FOOD 192 Applied Restaurant Service
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): (FOOD 190* or FOOD 172*), SANT 181*
You will develop your communication, management and practical food service skills. You will also use a computerized point of sale system.

### FOOD 193 Applied Restaurant Service 2 and WHMIS
Credit Units: 4.0  Course Hours: 60.0
You will gain practical experience in operating a full service formal dining room. During the practical luncheon sessions, you will act in various staff positions and operate a computerized point-of-sale system. You will also learn to apply the basic principles of WHMIS in a food service environment.

### FOOD 194 Purchasing
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): MKTG 181
Your studies will focus on the responsibilities necessary for quantity food purchasing. You will learn about the various food products purchased for use in a food and beverage environment. You will discuss the application of the four-step control process (food purchases, receiving, storage, and inventory management) and gain an understanding of capital purchasing requirements.

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## Course Descriptions

### FOOD 195 Service of Food and Beverage
- **Credit Units:** 2.0  
- **Course Hours:** 24.0  
- **Prerequisite(s):** SANT 181  
You will develop skills in the procedures used in the service of food and beverage. You will have the opportunity to practice customer relations skills as they apply to a service setting.

### FOOD 200 Restaurant Cost Controls & Menu Planning
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
You will focus on the necessity of establishing and enforcing control systems used by various food and beverage operations. You will learn the value of performing control procedures in a food service operation. You will study the principles of menu planning in conjunction with menu formats and terminology and develop an understanding of the role the menu plays within a food service establishment. You will design menus typically found within the commercial foodservice industry.

### FOOD 201 Procurement and Cost Controls
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
You will become familiar with the market, market functions and the knowledge, skills and attitudes needed as a purchaser. The course content includes food purchasing, receiving, storage and inventory procedures. You will focus on the necessity of establishing and enforcing control systems used by various Food and Beverage operations. You will learn how to perform control and costing procedures.

### FOOD 281 Food and Beverage Cost Controls
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
You will focus on the necessity of establishing and enforcing control systems used by various Food and Beverage operations. You will learn how to perform control procedures and compile information on a day-to-day basis.

### FOOD 284 Recipe Standardization
- **Credit Units:** 1.0  
- **Course Hours:** 20.0  
- **Prerequisite(s):** SANT 185, FOOD 189, SFTY 192  
You will learn the basic principles of standardizing recipes as a tool for maintaining quality, controlling production and simplifying purchasing.

### FOOD 286 Advanced Restaurant Service
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** FOOD 192  
You will apply your theoretical knowledge to staff and control a full service formal dining room. You will act in various positions and perform duties associated with serving and managing within a dining room environment.

### FOOD 291 Dining Room Production
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** COOK 197  
You will receive practical hands-on instruction in all areas of the kitchen related to preparing and serving an a la carte menu.

### FOOD 297 Catering 2
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Prerequisite(s):** SANT 185, SFTY 192, FOOD 282  
You will learn the principles of planning, organizing, controlling and preparing and managing a catered function. Practical experience will help you develop teamwork, business and supervisory skills.

### FORE 102 Introduction to Forestry
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
You will describe forest practices that are common in Saskatchewan. You will describe forest harvesting methods as well as harvest and transportation systems. You will be introduced to the forest regions of Canada while discussing various silviculture practices.

### FORE 200 Forest Health
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
You will study forest health concerns in Saskatchewan. These studies will include common forest pests and diseases and the role of fire in forest ecology. You will examine the effects of climate, fire, and pollution on forest health.
### Course Descriptions

#### FORE 400 Advanced Forestry
Credit Units: 3.0  
Course Hours: 45.0  
You will describe the need for forest measurements and understand the tools commonly employed in forest measurements. Forest sampling techniques will be used to obtain wood volumes for trees, wood piles, unit areas, and the stand level.

#### FORE 405 Forest Access Techniques
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): FORE 470  
You will apply the principles and techniques required for planning, constructing, managing and retiring forest access. You will prepare a plan for an all-weather forest access road as well as discuss skidding, yarding systems and harvest distribution.

#### FRMG 126 Floor Framing
Credit Units: 4.0  
Course Hours: 60.0  
You will learn to assemble various types of floor systems as well as procedures for installing floor sheathing. You will also learn basic principles required for deck construction.

#### FRMG 221 Wall Systems
Credit Units: 4.0  
Course Hours: 60.0  
You will learn how to construct wood frame walls, steel stud walls and ceiling joists. Installing strapping, blocking and furring is also covered.

#### FRMG 222 Roof Framing
Credit Units: 4.0  
Course Hours: 60.0  
You will learn how to construct gable and shed roofs. You will also learn how to lay out, assemble and erect engineered roof trusses.

#### FRMG 250 Roof Trusses
Credit Units: 1.0  
Course Hours: 15.0  
You will learn how to lay out, assemble, erect and brace engineered roof trusses.

#### FTNS 100 Fitness 1
Credit Units: 2.0  
Course Hours: 30.0  
You will examine various aspects of personal wellness with an emphasis on physical fitness. You will participate in a fitness routine that will prepare you to meet the physical demands to work in a law enforcement environment.

#### FTNS 101 Fitness 2
Credit Units: 2.0  
Course Hours: 30.0  
You will continue to participate in physical fitness training activities with an emphasis on high intensity interval training. You will practice and participate in the Physical Abilities Requirement Evaluation (PARE) in order to compete for seasonal positions in conservation law enforcement.

#### FTNS 102 Introduction to Fuel and Ignition Systems
Credit Units: 4.0  
Course Hours: 60.0  
You will be introduced to the basic operation, diagnosis and repair of gasoline fuel injection and ignition systems.

#### FTNS 162 Personal Wellness 1
Credit Units: 3.0  
Course Hours: 45.0  
You will develop strategies required to manage the physical and mental stresses of paramedic practice. You will learn methods to maintain good health in a collaborative, supportive environment and choose activities to optimize your own personal health and wellness.

#### FTNS 163 Personal Wellness 2
Credit Units: 2.0  
Course Hours: 35.0  
Prerequisite(s): FTNS 162  
Building on your experiences in Personal Wellness 1 (FTNS 162), you will develop your own personal plan to optimize physical and mental health. You will be able to form positive, adaptive coping strategies to apply to your life as you prepare for the challenges particular to paramedics. You will also learn how nutrition affects physical and mental health and be able to make healthy choices.

#### FTNS 200 Fitness 3
Credit Units: 1.0  
Course Hours: 15.0  
You will continue to follow a fitness routine meet the physical demands to work in a law enforcement environment. You will prepare and participate in a personalized fitness plan which includes cardio, strength and flexibility training.

#### Course Descriptions
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENE 181</td>
<td>Genetics</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td></td>
<td>You will be introduced to transmission, cellular, population and molecular genetics. You will explore Mendelian principles, modes of inheritance, cell division, chromosomes, population dynamics, genes, the genetic code of nucleic acids, gene expression and recombinant Deoxyribonucleic Acid (DNA) technology.</td>
</tr>
<tr>
<td>GENE 182</td>
<td>Veterinary Genetics</td>
<td>2.0</td>
<td>30.0</td>
<td>CHEM 101</td>
<td></td>
<td>You will study transmission genetics, inheritance, pedigree, cell division, breed identification and the nature of genetic information.</td>
</tr>
<tr>
<td>GENE 285</td>
<td>Molecular Biology 1</td>
<td>2.0</td>
<td>30.0</td>
<td>BIOC 281, GENE 181, MICR 282*, MICR 283*</td>
<td>GENE 286</td>
<td>You will study deoxyribonucleic acid (DNA) synthesis methods, transcription and translation in eukaryotes and prokaryotes. You will examine bacterial transcription and regulation of gene expression. You will examine cloning strategies using phage, bacteria and yeast. You will also examine molecular biology techniques and applications of synthetic biology.</td>
</tr>
<tr>
<td>GENE 286</td>
<td>Molecular Biology 1 Lab</td>
<td>4.0</td>
<td>60.0</td>
<td>BIOC 281, GENE 181, MICR 282*, MICR 283*</td>
<td>GENE 285</td>
<td>You will isolate, purify, and analyze deoxyribonucleic acid (DNA) using molecular biology techniques. As part of a research project you will construct recombinant DNA to be used for synthetic biology applications. You will also use bioinformatics to analyze DNA sequences.</td>
</tr>
<tr>
<td>GENE 287</td>
<td>Molecular Biology 2</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>GENE 288</td>
<td>You will study ribonucleic acid (RNA) biochemistry, transcription and its regulation, and RNA Splicing. You will study translation, and protein folding and cellular localization. You will examine regulatory RNA mechanisms of gene expression. You will examine methods in molecular biology and genetic engineering including PCR based techniques, CRISPR genome editing, DNA sequencing and molecular markers.</td>
</tr>
<tr>
<td>GENE 288</td>
<td>Molecular Biology 2 Lab</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td>GENE 287</td>
<td>You will use molecular biology techniques to separate, isolate and purify RNA and proteins. You will use PCR based techniques to examine and analyze RNA. You will also purify, and analyze proteins using chromatography, SDS-PAGE, and blotting techniques. You will examine genome content using molecular markers Real time PCR and DNA sequencing. You will use CRISPR technology to engineer a bacterial genome.</td>
</tr>
<tr>
<td>GEOL 101</td>
<td>Introduction to Mineralogy and Ore Deposits</td>
<td>3.0</td>
<td>45.0</td>
<td>TERR 103</td>
<td></td>
<td>You will be able to examine physical and optical properties of minerals and rocks of which the solid Earth is composed, the processes that generate Earth's landforms, geologic time, and surface processes (e.g., glaciers, streams, groundwater). You will be able to explain the processes of ORE deposits and develop a basic understanding of core logging.</td>
</tr>
<tr>
<td>GEOL 145</td>
<td>Ground Control 1</td>
<td>3.0</td>
<td>40.0</td>
<td>MINE 141</td>
<td></td>
<td>The course provides information on rock formations, rock properties, sources of ground movement, equipment and a demonstration of scaling procedures.</td>
</tr>
</tbody>
</table>
Course Descriptions

GEOL 146 Ground Control 2
Credit Units: 1.0  Course Hours: 20.0
Prerequisite(s): GEOL 145
Building on the knowledge acquired in GEOL 145 (Ground Control 1), you will receive an introduction to the hands-on scaling procedures used to check ground conditions.

GEOL 200 Geophysical Data Collection and Analysis
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): ENGM 100, GEOL 101
You will be introduced to basic geophysics theory, data collections and basic data analysis. Your studies will include comparing various geophysical techniques.

GEOM 100 Introduction to Maps and Navigation
Credit Units: 3.0  Course Hours: 45.0
You will become familiar with fundamental mapping concepts and learn about map use in Canada. You will study the history of maps, map creation and use, map projections, the importance of map reference systems, terrain analysis using contours and an introduction to map scale and errors. You will also develop basic navigation skills through the use of instrumentation and topographic maps.

GEOM 200 Introduction to Global Navigation Satellite Systems Surveys (GNSS) Surveys and Application
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): GEOM 100, MAT 102, MAT 110
Your studies will focus on the fundamentals of Global Navigation Satellite Systems (GNSS). The course will emphasize the use of Global Positioning System (GPS) but also include an introduction to global navigation satellite system (GLONASS) and the Galileo system. You will learn the components of a GNSS, its signal structure, and explore the effects that errors have on the system and its position accuracies. You will examine the different positioning modes available when using a GNSS such as absolute, differential and real-time. Your field work will involve using a GNSS for basic surveying applications.

GEOM 201 Coordinate Systems and Map Projections
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): GEOM 200
Your studies will focus on common map projections used in Canada with an emphasis on conformal projections. You will study the theoretic concepts and the practical mathematical formulae behind a map projection. You will examine the distortion characteristics for a given map projection by examining physical maps and mathematical mapping functions. Emphasis will be placed on the Transverse Mercator projection and their corresponding coordinate systems. You will learn how current Global Navigation Satellite Systems (GNSS) field software calculates local or ground Cartesian coordinates. You will study the importance of geoid modelling and how heights are reported by GNSS field software.

GEOM 202 Introduction to Geodesy
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): GEOM 200
Corequisite(s): PHYS 200
Your studies will focus on the physical and mathematical aspects of geodetic positioning. You will study the importance and effect of the Earth's gravity field on positioning. You will study the relationship of geoid and reference ellipsoid and discuss the importance of these surfaces. You will learn about terrestrial and inertial reference systems and frames. You will study the relevant datums used in North America. The course covers time systems relevant to geomatics and includes the use of the celestial sphere in geodetic astronomy.

GEOM 203 Advanced Global Navigation Satellite Systems Surveys (GNSS) and Applications
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): GEOM 201, GEOM 202
Your studies will focus on developing a more advanced understanding of how Global Navigation Satellite Systems (GNSS) provide a positional solution to users. You will study the signals broadcast by the satellites and use them to discover the positional inner workings of a GNSS receiver. You will study the uses and limitations of modern GNSS hardware and software. You will use and develop troubleshooting approaches for common GNSS problems. You will study modern approaches to positional problems.
Course Descriptions

**GERI 100 Geriatric Care**  
Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s): GERI 100CE  
You will focus on the principles of geriatric assessment and care. You will study dementia patient care, housing options available to geriatrics and the use of various assessment tools. You will participate in labs and online discussions designed to help you develop the skills required to provide care to a geriatric patient. Upon completion of this course you will receive a certificate of participation in Gentle Persuasive Approach.

**GIS 101 Geographic Information Systems 1**  
Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s): GIS 350, GIS 440  
You will achieve a basic understanding of Geographic Information Systems (GIS) concepts and principles. You will learn how to display spatial data, work with tables and create a map layout using GIS for desktop.

**GIS 102 Introduction to ArcGIS**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): GIS 101*  
You will explore modules and capabilities of ArcGIS software. You will also practice geoprocessing tasks.

**GIS 103 Data Input for Geographic Information Systems (GIS)**  
Credit Units: 3.0  
Course Hours: 45.0  
You will collect data of Geographic Information Systems (GIS). You will use data input techniques and hardware to create new data sets pertaining to georeferencing, error checking and adding attribute data. You will also survey existing GIS data sources. Your studies will focus on working with various data formats using AutoCAD.

**GIS 104 Introduction to Python**  
Credit Units: 3.0  
Course Hours: 45.0  
You will be introduced to the basics of programming using Python software. Your studies will include creating scripts and programs.

**GIS 105 Vector Analysis**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): GIS 401  
You will study the analytical capabilities of Geographic Information Systems (GIS) using the vector data model. You will apply topological overlay, buffering and proximity analyses of points, lines and polygons to resource management scenarios.

**GIS 107 Geographic Information Systems (GIS) Hardware and Hardware Resources**  
Credit Units: 1.0  
Course Hours: 15.0  
You will gain hands-on experience using various Geographic Information Systems (GIS) hardware, including computers, large format plotters, scanners and printers. Computer internal parts will be discussed. You will work on hardware pricing and use of various hardware components.

**GIS 108 Unmanned Aerial Vehicle (UAV) Data**  
Credit Units: 2.0  
Course Hours: 30.0  
You will gain experience using various types of UAV cameras. Demonstrated in this course will be UAV data acquisition using RGB (Red, Green and Blue), NIR (Near-infrared), multispectral camera and Lidar (Light Detection and Ranging) cameras. Project work will include learning about UAV setup, UAV software setup, flight lines, flight patterns and UAV camera images and settings. UAV flight will be demonstrated in this course. You will be shown how to download data from the UAV to a computer.

**GIS 109 Unmanned Aerial Vehicle (UAV) Data Processing**  
Credit Units: 2.0  
Course Hours: 30.0  
You will gain hands-on experience using various Geographic Information Systems (GIS) software to process data collected by a UAV. In this course you will post-process UAV field data and export to various GIS format types. Project work will include learning about initial processing, flight lines, UAV camera images, KML files, geotagging and calibration of images. Your studies will focus on post-processing data from various types of payloads including RGB (Red, Green and Blue), NIR (Near-infrared) and Lidar (Light Detection and Ranging).
Course Descriptions

GIS 110 Global Navigation Satellite Systems (GNSS) and Geographic Information System (GIS) Fundamentals
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): SRVY 120, TERR 102
You will learn how to create topographic maps using a Geographic Information System. Your studies will focus on the fundamentals of Global Navigation Satellite Systems (GNSS) and Geographic Information System (GIS). You will learn the components of a GNSS, its signal structure, and explore the effects that errors have on the system and its position accuracies. You will examine the different positioning modes available when using a GNSS (i.e. absolute, differential and real-time). Your field work will involve using a GNSS for basic surveying applications. You will apply Geographic Information System (GIS) tools for data collection, database management and mapping functionalities.

GIS 200 Digital Cartography and Geographic Information System (GIS)
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): GEOM 100
Your studies will help develop the necessary mapping skills needed for different geomatics projects. The course covers digital map-making and Geographic Information System (GIS) concepts. It will also provide you basic knowledge for geospatial analysis required for different geomatic projects.

GIS 201 Advanced Geographic Information System (GIS)
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): GEOM 100, GIS 200
Your studies will help develop the advanced mapping skills needed on many geomatics projects. The course covers advanced digital map-making and Geographic Information System (GIS) concepts and applications. It will also provide you advanced knowledge for geospatial analysis required for different geomatic projects and web applications.

GIS 302 Introduction to Mobile Geographic Information Systems (GIS)
Credit Units: 2.0  Course Hours: 30.0
You will learn how to integrate Global Positioning Systems (GPS) and Geographic Information Systems (GIS). You will study intermediate theories and the principles of geodesy including positioning methods, errors and error management. You will practice your skills by completing a project from the planning stage to final data output.

GIS 361 Raster Analysis
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): GIS 401
You will study the analytical capabilities of Geographic Information Systems (GIS) using the raster data model. You will study raster analysis techniques that include Boolean and arithmetic grid overlays, neighborhood and zonal functions, surface representations of elevation, density, distance and proximity.

GIS 362 Three-Dimensional Analysis
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): GIS 105*
You will perform advanced Geographic Information Systems (GIS) analysis using three-dimensional modeling.

GIS 363 Basic Statistics and Geostatistics
Credit Units: 3.0  Course Hours: 45.0
You will receive an introduction to basic elements of statistics (including the organization and reporting of statistical data, sampling, measures of central tendency, dispersion and regression). You will use Geostatistics to estimate data values for locations that cannot be sampled directly. You will establish and use models of spatial correlation to interpolate unknown data values.

GIS 401 Geographic Information Systems 2
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): GIS 101
Equivalent Course(s): GIS 440
You will apply advanced Geographic Information Systems skills and concepts. You will input data and examine how coordinate systems and scale relate to Geographic Information Systems (GIS). You will learn spatial analysis techniques and apply your skills in an authentic project.

GLAS 120 Glass Removal and Installation
Credit Units: 1.0  Course Hours: 12.0
Prerequisite(s): SFTY 126*
You will examine the role of stationary glass in unibody construction. The course content includes glass removal and replacement to factory original specifications.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMTC 202</td>
<td>Geospatial Information Systems</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will be introduced to geospatial information systems (GIS) principles and techniques. You will learn how to use vector and raster data structures and topology to model and manage geospatial databases. You will become familiar with SQL queries and apply cartographic design principles to create thematic maps. You will be introduced to spatial modeling and analysis, network representation and analysis, spatial interpolation and surface modelling. You will design, execute and present a GIS project.</td>
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</tr>
<tr>
<td>GPS 100</td>
<td>Basics of Global Positioning Systems (GPS)</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will receive an introduction to GPS for resource managers. You will review basic GPS theory and principles of geodesy (including positioning methods, errors and error management). You will gain hands-on experience using single-frequency GPS receivers. You will learn how to navigate using handheld GPS receivers. You must complete a small project from the planning stage to final data output. You will also learn how to put GPS data into different file formats.</td>
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</tr>
<tr>
<td>GPS 110</td>
<td>Basics of Global Positioning Systems (GPS)</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will be introduced to Global Positioning Systems (GPS) for resource managers. You will gain hands-on experience navigating using handheld GPS receivers. Your studies will include entering GPS data into various Geographic Information Systems (GIS) file formats. Using handheld and survey-grade receivers, you will practice advanced data collection techniques.</td>
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<tr>
<td>GRND 200</td>
<td>Introduction to Rock Mechanics and Ground Control</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will collect geotechnical data for rock mass and classification systems. You will study methods of ground control and support. Using computer software, you will analyze stability concerns and joint set data.</td>
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<tr>
<td></td>
<td>Prerequisite(s): ENGM 100</td>
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<td></td>
</tr>
<tr>
<td>GRND 201</td>
<td>Ground Control Design</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will apply skills and knowledge developed in GRND 200 to mine design, using factor of safety, stability charts and other methods. You will examine mine operations and ground support systems.</td>
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</tr>
<tr>
<td>GRND 202</td>
<td>Introduction to Rock Mechanics and Ground Control Lab</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>You will be introduced to procedures useful in rock mechanics design and utilize lab samples to conduct compressive strength on different type of samples.</td>
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</tr>
<tr>
<td>GRPH 100</td>
<td>Elements and Principles of Design 2</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will focus on the graphic elements of type, format and image. You will analyze how graphic elements are used alone and in combination. You will apply these skills to create effective communication solutions.</td>
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<tr>
<td></td>
<td>Prerequisite(s): DSGN 101</td>
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<tr>
<td></td>
<td>Equivalent Course(s): GAP 340, GRPH 100CE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRPH 101</td>
<td>Computer Graphics</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td></td>
<td>You will learn skills specific to creating vector and raster digital graphics. You will study a variety of techniques related to both creating original work and editing existing images.</td>
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<tr>
<td></td>
<td>Prerequisite(s): MULT 120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRPH 102</td>
<td>Raster Graphics</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>Your studies will include an introduction to the basic concepts of raster graphics. You will study a variety of techniques used for graphic editing. You will develop the skills required to use raster graphic applications, perform image editing, and execute raster graphic compositing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): COMP 102*</td>
<td></td>
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</tr>
</tbody>
</table>

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# Course Descriptions

## GRPH 103 Vector Graphics
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): COMP 102*  
Your studies will provide an introduction to basic concepts of vector graphics. You will study a variety of techniques for formatting, editing and manipulating graphics.

## GRPH 123 Graphical Communications 1
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s): GRPH 123CE  
Your studies will introduce you to the techniques and standards required to communicate graphically. You will study concepts necessary to create 2-D and 3-D drawings. By practicing working drawing concepts, you will recognize lineweight and linetype standards, engineering and architectural scales as well as dimensioning protocol.

## GRPH 124 Graphical Communications 2
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): GRPH 123  
Equivalent Course(s): GRPH 124CE  
Your studies will introduce you to the fundamentals of reading maps and plans. Through practical exercises, you will interpret maps, prepare drawings, convey survey data and draw layouts in plan and profile form. You will calculate volume and area from plan and profile drawings, calculate bearings, azimuths, distances, and areas on topographical maps. You will also identify symbols used in equipment and pipe schematics.

## GRPH 144 Digital Printing
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): GRPH 154  
Your studies will focus on how to optimize and output jobs to digital colour presses, and wide format equipment. You will learn how to design for proper output to digital colour presses, and wide format equipment. You will learn how to set colour management and resolution requirements for digital output devices.

## GRPH 145 Introduction to Graphic Communications
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): GRPH 153*  
You will be able to identify and explain various design and production considerations for print. You will also be introduced to the basic elements and principles of design creation. You will develop an understanding of the Macintosh operating system and you will be introduced to the user interface of Adobe InDesign and Adobe Illustrator. Through lab experience, you will focus on page layout basics and the drawing of primitive vector graphics.

## GRPH 146 Introduction to Printing
Credit Units: 4.0  Course Hours: 60.0  
Your studies will introduce you to the Macintosh operating system along with graphic communication concepts. You will learn to operate a digital colour press and explore a variety of printing methods and finishing techniques. You will be introduced to the basic elements and principles of design creation along with being able to identify and explain various design and production considerations for print.

## GRPH 147 Digital Page Layout 1
Credit Units: 3.0  Course Hours: 45.0  
You will use page layout software and acquire the basic knowledge required for building digital documents for print. Through lab experience, you will focus on the basic use of text, objects, colour, formatting skills and keyboard shortcuts.

## GRPH 148 Digital Page Layout 2
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): GRPH 154  
You will be introduced to intermediate features of the user interface of page layout software. Through a combination of theory and lab experiences, you will focus on the efficient use of templates, style sheets, tables, master pages, table of contents indexes and book creation. You will develop the skills necessary to produce error-free spot colour and process colour digital documents using page layout software. You will preflight and package your job to industry standards.

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# Course Descriptions

## GRPH 149 Digital Page Layout 3
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): GRPH 154  
You will be introduced to the interactive features of page layout software. Through a combination of theory and lab experiences, you will focus on creating interactive slideshows and PDF forms. You will learn to use navigation and multimedia tools in the development of multi-page documents.

## GRPH 150 Design 1
Credit Units: 3.0  Course Hours: 45.0  
You will gain an understanding of colour theory and the use of the colour wheel. You will develop an understanding of the application of typography in relation to effective graphic design. You will learn design problem solving steps. Using the fundamental design knowledge and skills you acquire in this course, you will create a logo and complementary pieces for a specified client.

## GRPH 151 Self-Promotion
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): GRPH 154  
You will create self-promotional material that will highlight your work created in the Graphic Communications program. You will develop online social media presence as well as traditional media to promote your profile, interests and self.

## GRPH 152 Digital Illustration 1
Credit Units: 3.0  Course Hours: 45.0  
You will be introduced to illustration software keyboard shortcuts, tools and drawing techniques, and will acquire the basic and intermediate knowledge required for the digital production of vector graphics. You will acquire the practical skills required for the digital production of multi-coloured vector graphics.

## GRPH 153 Image Editing 1
Credit Units: 3.0  Course Hours: 45.0  
You will acquire the practical skills required for the efficient use of image editing software by using Adobe Photoshop to build a wide range of real-world projects. You will learn how to manage layers, use layer masks, apply basic image editing and creative adjustments.

## GRPH 154 Workflow Fundamentals
Credit Units: 3.0  Course Hours: 45.0  
Your studies will focus upon graphic communications workflow fundamental. You will learn proper file management techniques for your documents. You will learn how to apply basic colour management to your documents. You will learn the correct way to crop, straighten, and remove image imperfections. You will learn techniques for neutralizing colour and correcting colour skin tones. You will learn how to scale and sharpen images for specific output conditions. You will learn how to prepare industry-standard vector graphics. You will learn how to make decisions about the specific requirements needed for the proper output of images and vector graphics to various devices.

## GRPH 155 Image Editing 2
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): GRPH 154  
You will acquire the practical skills required to apply common design tasks using Adobe Photoshop. You will learn how to edit images, draw shapes, and work with type and fonts. You will also use masking, and blending modes to composite images.

## GRPH 156 Image Editing 3
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): GRPH 144  
You will focus on applying a variety of effects to images using Adobe Photoshop. The course combines practical experience in editing and compositing images to be included in industry-standard documents, high quality print output and inclusion in a professional portfolio.

## GRPH 157 Print Media 1
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): GRPH 146, GRPH 144*, GRPH 149*  
Your studies will cover ink and colour theory, inking system fundamentals and troubleshooting ink problems. You will acquire the knowledge and procedures to prepare the sheetfed offset press for the production of a variety of one-colour projects to industry standards. Your studies will cover aspects of proper safety procedures.

## GRPH 158 Print Media 2
Credit Units: 3.0  Course Hours: 45.0  
Your studies will focus on screen-printing onto textiles. You will learn to coat screens with emulsion, output film positives, expose and wash out screens, print onto garments and clean screens. You will create single colour images for assembly.

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## Course Descriptions

### GRPH 181 Graphics

**Credit Units:** 4.0  **Course Hours:** 66.0  
You will develop suitable drafting and blueprint interpreting skills. You will learn how to read blueprints and produce shop drawings as needed in the trade. You will also learn how to take estimates from these drawings.

### GRPH 191 Job Production 1

**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** MATH 165  
**Corequisite(s):** COM 160, GRPH 151, GRPH 210  
Building on the skills you acquired throughout the first year of the Graphic Communications program, you will co-ordinate and produce a variety of projects to industry standards.

### GRPH 200 Advanced Raster Skills

**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** GRPH 102  
**Equivalent Course(s):** GRPH 200CE  
Using raster graphic software, you will learn advanced raster graphic skills. Your studies will include colour correction, batch processes, automation and photo retouching. You will learn how to produce more consistent work in less time. You will research and employ new techniques.

### GRPH 201 Advanced Vector Skills

**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** GRPH 103  
**Equivalent Course(s):** GRPH 201CE  
You will learn a variety of advanced techniques that will help you create quality vector graphics. You will research and share new vector graphic techniques.

### GRPH 202 Electronic Publishing

**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** (DSGN 204 or DSGN 101), GRPH 102, GRPH 103  
**Equivalent Course(s):** GRPH 202CE  
Using popular layout software, you will learn to create professionally-formatted documents for print and web. You will learn to optimize your production workflow and create interactive documents.

### GRPH 203 Introduction to Colour Management

**Credit Units:** 1.0  **Course Hours:** 15.0  
**Equivalent Course(s):** GRPH 203CE  
You will study colour management processes that produce consistent and accurate output. You will learn how to manage colour on a computer system.

### GRPH 207 Digital Output

**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** GRPH 154  
Your studies will equip you with the knowledge to prepare industry standard print-ready files for digital output. You will acquire the skills required to develop on demand printing using variable data. You will perform digital trapping and imposition and examine why they are crucial to printing success in the graphic communications industry.

### GRPH 208 Digital Illustration 2

**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** GRPH 154  
Your studies will cover advanced level techniques in Adobe Illustrator. You will examine advanced level tools within Illustrator and create technically sound vector artwork. You will examine and implement industry standard best practices for vector artwork creation. You will create advanced level vector graphics for output, and for use within digital and print-ready files.

### GRPH 209 Print Media 4

**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** GRPH 239  
Your studies will focus on vinyl application and screen-printing onto a variety of textiles. You will create, output and assemble multi-colour vector illustrations using the vinyl cutter and the screen printing process.

### GRPH 210 Premedia 1

**Credit Units:** 3.0  **Course Hours:** 45.0  
**Prerequisite(s):** GRPH 144  
**Equivalent Course(s):** GRPH 210CE  
Your studies will equip you with the knowledge to prepare industry standard print-ready files for distribution within the graphic communications industry. You will create a multi-item campaign for cross-media production.

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRPH 211</td>
<td>Premedia 2</td>
<td>3.0</td>
<td>45.0</td>
<td>GRPH 144</td>
<td>Your studies will equip you with the knowledge to prepare industry standard, digital and print-ready, files for distribution within the graphic communications industry. You will create a multi-item campaign for cross-media production.</td>
</tr>
<tr>
<td>GRPH 212</td>
<td>Premedia 3</td>
<td>3.0</td>
<td>45.0</td>
<td>GRPH 239</td>
<td>Your studies will equip you with the knowledge to prepare industry standard, digital and print-ready files for distribution within the graphic communications industry. You will create a multi-item campaign for cross-media production.</td>
</tr>
<tr>
<td>GRPH 213</td>
<td>Premedia 4</td>
<td>4.0</td>
<td>60.0</td>
<td>GRPH 239</td>
<td>Your studies will equip you with the knowledge to prepare industry standard, digital and print-ready files for distribution within the graphic communications industry. You will learn the fundamentals of creating long documents. You will learn strategies for creating and developing long documents. You will create, output, and prepare a job package for long documents.</td>
</tr>
<tr>
<td>GRPH 230</td>
<td>Premedia 5</td>
<td>3.0</td>
<td>45.0</td>
<td>GRPH 239</td>
<td>Your studies will equip you with the knowledge to prepare industry standard, digital and print-ready files for distribution within the graphic communications industry. You will create multi-item campaigns for packaging products.</td>
</tr>
<tr>
<td>GRPH 211</td>
<td>Premedia 6</td>
<td>3.0</td>
<td>45.0</td>
<td>GRPH 239</td>
<td>Your studies will equip you with the knowledge to prepare industry standard, digital and print-ready files for distribution within the graphic communications industry. You will create a large multi-item campaign, meeting deadlines, and solving problems, while dealing with the pressures of managing multiple projects on a daily basis.</td>
</tr>
<tr>
<td>GRPH 232</td>
<td>Design 2</td>
<td>3.0</td>
<td>45.0</td>
<td>GRPH 144</td>
<td>You will manipulate elements of design using visual techniques and principles of organization. Your studies will include exploring typography for various mediums and you will gain an understanding of the design process as applied to text-based design. Using a colour wheel, you explore and demonstrate effective use of colour relationships and palettes in design.</td>
</tr>
<tr>
<td>GRPH 233</td>
<td>Design 3</td>
<td>3.0</td>
<td>45.0</td>
<td>GRPH 239</td>
<td>Your study of typography will expand to the experimental and expressive use of type. You will also define design project goals, develop a design rationale, create complementary design pieces targeted to multiple audiences and present your design project to your classmates.</td>
</tr>
<tr>
<td>GRPH 234</td>
<td>Brand Building</td>
<td>3.0</td>
<td>45.0</td>
<td>GRPH 144</td>
<td>You will be introduced to the brand development process. You will learn the role that research and analysis plays in branding and how to develop core brand values and understand your audience. Your studies will also help you develop the visual vocabulary to communicate the message and develop a strong visual identity package.</td>
</tr>
<tr>
<td>GRPH 238</td>
<td>Print Media 3</td>
<td>3.0</td>
<td>45.0</td>
<td>DSGN 103*, GRPH 207*</td>
<td>Your studies will cover aspects of proper safety procedures. You will operate and troubleshoot the feeder, register, delivery and print unit systems on an offset printing press. You will explain and troubleshoot plate, blanket, and impression cylinder principles.</td>
</tr>
<tr>
<td>GRPH 239</td>
<td>Premedia Preparation</td>
<td>3.0</td>
<td>45.0</td>
<td>GRPH 144</td>
<td>Your studies will equip you with the knowledge to prepare industry standard, digital and print-ready files for distribution within the graphic communications industry. Your studies will cover how to combine the individual concepts you have acquired from previous courses, into a cohesive workflow.</td>
</tr>
</tbody>
</table>
### GRPH 243 Digital Marketing
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** GRPH 239

You will learn about digital marketing in today’s fast changing environment. Social strategy, exciting content, mobile photography, graphic design and more. You will learn how to develop and define your social media platforms with a marketing communications plan.

### GRPH 291 Job Production 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** GRPH 231*, GRPH 233*

Building on the skills you acquired throughout the first and second years of the Graphic Communications program, you will coordinate and produce a variety of projects to industry standards.

### HADM 183 Front Office Operations and Management
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** HADM 182

You will study the application of management concepts in a front office operation including: an overview of the front desk, the guest cycle, guest services, security issues and procedures, as well as yield management techniques and trends. You will train on the Opera front office property management system.

### HADM 184 Revenue and Operations Management
- **Credit Units:** 3.0  
- **Course Hours:** 45.0

You will learn to apply operational techniques in the hospitality industry. You will develop skills in room forecasting, rooms division budgeting, pro-forma and labour cost controls, night audit procedures, statistical reports and financial analysis.

### HADM 187 Hospitality Career Development
- **Credit Units:** 2.0  
- **Course Hours:** 30.0

You will discuss the scope, nature and trends of the hospitality industry. You will develop a personal career action plan and the skills necessary to be successful in today’s job market. Finally, you will learn strategies for developing resumes, cover letters and professional image and will have an opportunity to practice job interview skills.

### HADM 188 Rooms Division Management
- **Credit Units:** 4.0  
- **Course Hours:** 60.0

You will study the application of management concepts relating to a hotel’s Rooms Division including: an overview of the front desk and housekeeping departments, the guest cycle, guest services, security issues and procedures, effective inventory management as well as the environmental concerns relating to the Rooms Division. You will train on current industry software (Opera Property Management System) to perform actual operations.

### HAIR 100 Foundations of Hairstyling
- **Credit Units:** 4.0  
- **Course Hours:** 60.0

You will explore sciences as they relate to hairstyling. The course content includes chemistry, physics, anatomy and physiology, trichology, nutrition and metric conversion. You will examine communication skills for hairstylists.

### HAIR 101 Shampoos and Treatments
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** SANT 108*

You will study the practice and theory in shampooing, finishing rinses, hair treatments and scalp treatments. You will develop the knowledge required to recognize diseases and disorders of the scalp.

### HAIR 102 Hairstyling and Braiding Principles
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Prerequisite(s):** SANT 108*

The course is an introduction to the basic principles of finger waves, pin curls, roller sets, comb-outs, blow waving and braiding techniques. You will learn to style hair to suit particular client features.

### HAIR 103 Conventional Wet Styling
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** HAIR 102*

The course examines the practical application of pin curling, finger waving, wet set styling and comb-outs.

### HAIR 104 Thermal Styling
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** HAIR 102*

You will practice air waving, blow waving and iron waving techniques.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Prerequisite(s)</th>
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</thead>
<tbody>
<tr>
<td>HAIR 105</td>
<td>Chemical Waving</td>
<td>3.0</td>
<td>45.0</td>
<td>HAIR 100*, HAIR 101*</td>
<td>You will study and practice all aspects of chemically treating the hair either through permanent waving or chemical relaxing.</td>
</tr>
<tr>
<td>HAIR 106</td>
<td>Basic Hair Colouring</td>
<td>4.0</td>
<td>60.0</td>
<td>HAIR 100*, HAIR 101*</td>
<td>You will study all aspects of colouring with emphasis on practical applications of temporary, semi-permanent and permanent hair colouring techniques.</td>
</tr>
<tr>
<td>HAIR 107</td>
<td>Hairshaping Mechanics</td>
<td>4.0</td>
<td>60.0</td>
<td>SANT 108*</td>
<td>You will be introduced to the basic principles of cutting mechanics. You will gain an understanding of the use of hairshaping tools, angles and the elevation of cutting techniques (in theory and in practical).</td>
</tr>
<tr>
<td>HAIR 108</td>
<td>Specialized Hair Colouring and Lightening</td>
<td>4.0</td>
<td>60.0</td>
<td>HAIR 106*</td>
<td>You will focus on specialized colouring techniques with emphasis on the practical application of lightening and toning, creative lightening techniques and specialized colouring techniques.</td>
</tr>
<tr>
<td>HAIR 109</td>
<td>Wigs and Hair Pieces</td>
<td>1.0</td>
<td>15.0</td>
<td>HAIR 101*, HAIR 104*</td>
<td>You will practice cleaning and styling human and synthetic wigs, hair pieces and extensions. In your studies you will practice consultation, fitting and styling for wigs, hair extensions, and hair pieces.</td>
</tr>
<tr>
<td>HAIR 110</td>
<td>Hairstyling Artistry</td>
<td>4.0</td>
<td>60.0</td>
<td>HAIR 103*, HAIR 104*</td>
<td>You will pre-plan and perform an individualized hairstyle by analyzing the elements of design and suitability of a hairstyle to suit your client's needs. The course expands on the basic mechanics of hairstyling to help you create special effects using specialized styling techniques.</td>
</tr>
<tr>
<td>HAIR 111</td>
<td>Hairshaping Artistry</td>
<td>3.0</td>
<td>45.0</td>
<td>HAIR 107*</td>
<td>You will expand on basic haircutting techniques with an introduction to art principles, creating individualized designs, custom design, and cutting. You will learn how to pre-plan a precision hairshape to suit the client's needs, lifestyle, body stature and styling abilities.</td>
</tr>
<tr>
<td>HAIR 112</td>
<td>Chemical Waving Artistry</td>
<td>2.0</td>
<td>30.0</td>
<td>HAIR 105*</td>
<td>You will plan and wrap chemical wave designs including specialized techniques for all hair lengths.</td>
</tr>
<tr>
<td>HAIR 113</td>
<td>Men's Hairshaping</td>
<td>2.0</td>
<td>30.0</td>
<td>HAIR 111*</td>
<td>You will practice barbering techniques for unisex styling. These techniques include clipper cutting, shear/comb techniques, razor/combining.</td>
</tr>
<tr>
<td>HDRO 100</td>
<td>Hydronic Heating</td>
<td>2.0</td>
<td>30.0</td>
<td>SAFE 104*</td>
<td>You will study safety issues and components of hydronic boilers, pumps and heating units. You operate hydronic heating systems.</td>
</tr>
<tr>
<td>HEAT 100</td>
<td>Heating Systems</td>
<td>3.0</td>
<td>45.0</td>
<td>MTER 180, PROC 180*</td>
<td>You will be introduced to steam, electric and infrared heating terminology, systems and equipment. You will also study fuel cut-offs, feed water chemical control as well as heating boiler controls.</td>
</tr>
<tr>
<td>HEMA 179</td>
<td>Hematology</td>
<td>5.0</td>
<td>74.0</td>
<td>MT 180, PROC 180*</td>
<td>You will focus on laboratory procedures performed routinely in the clinical laboratory. These include the theory and use of hematology analyzers and the assessment of peripheral blood films.</td>
</tr>
</tbody>
</table>
### HEMA 188 Hemopathology - Erythrocytes
Credit Units: 2.0  Course Hours: 35.0  
Prerequisite(s): HEMA 179  
You will explore the pathophysiology of various anemias as related to the laboratory involvement in diagnosis and treatment. You will also learn the special laboratory tests used for differential diagnosis. You will apply this theory to assess laboratory tests for analytical discrepancies and result validity.

### HEMA 189 Hemopathology - Leukocytes
Credit Units: 2.0  Course Hours: 32.0  
Prerequisite(s): HEMA 179  
You will explore the pathophysiology of blood diseases involving primarily leukocytes as related to the laboratory involvement with diagnosis and treatment. You will also learn the special laboratory tests used for differential diagnosis. You will apply this theory to assess laboratory tests for analytical discrepancies and result validity.

### HEMA 191 Fundamental Hemopathology
Credit Units: 2.0  Course Hours: 30.0  
You will be introduced to the pathophysiology of blood diseases. You will study the impact of disease on leukocytes and the role of the laboratory in diagnosis and treatment.

### HEMA 192 Introductory Hemostasis
Credit Units: 2.0  Course Hours: 35.0  
Prerequisite(s): MTER 180, PROC 180*, IMMU 183*  
You will study secondary hemostasis and fibrinolysis. You will learn to perform, assess and correlate common screening tests used to detect and monitor treatment of hemostasis disorders.

### HEMA 283 Advanced Hemostasis
Credit Units: 2.0  Course Hours: 28.0  
Prerequisite(s): HEMA 192  
You will study disorders associated with primary hemostasis, secondary hemostasis, fibrinolysis and thrombophilia. You will learn to perform, assess and correlate specialized hemostasis tests used to differentiate and monitor these disorders.

### HEOP 140 Construction Survey Specifications
Credit Units: 1.0  Course Hours: 15.0  
You will learn to identify construction symbols and terms, check grades, install a culvert and identify road-building stages.

### HEOP 141 Motor Scraper
Credit Units: 5.0  Course Hours: 75.0  
You will learn to identify components and controls, and discuss the purposes of a motor scraper. You will also receive hands-on training in operating a motor scraper.

### HEOP 142 Crawler Tractor
Credit Units: 5.0  Course Hours: 75.0  
You will learn to identify components and controls, and discuss the purposes of a crawler tractor. You will also receive hands-on training in operating a crawler tractor.

### HEOP 143 Backhoe
Credit Units: 5.0  Course Hours: 75.0  
You will learn to identify components and controls, and discuss the purposes of a backhoe. You will also receive hands-on training in operating a backhoe.

### HEOP 144 Motor Grader
Credit Units: 5.0  Course Hours: 75.0  
You will learn to identify components and controls, and discuss the purposes of a motor grader. You will also receive hands-on training in operating a motor grader.

### HEOP 145 Front End Loader
Credit Units: 5.0  Course Hours: 75.0  
You will learn to identify components and controls, and discuss the purposes of a front end loader. You will also receive hands-on training in operating a front end loader.

### HEOP 146 Skid Steer Loader
Credit Units: 5.0  Course Hours: 75.0  
You will learn to identify components and controls, and discuss the purposes of a skid steer loader. You will also receive hands-on training in operating a skid steer loader.

### HEOP 148 Excavator
Credit Units: 5.0  Course Hours: 75.0  
You will learn to identify components and controls, and discuss the purposes of an excavator. You will also receive hands-on training in operating an excavator.
## Course Descriptions

**HEOP 156 Rock Truck**  
Credit Units: 5.0  
Course Hours: 75.0  
You will learn to identify components and controls and will discuss the purposes of a rock truck. You will also receive hands-on training in operating a rock truck.

**HINF 160 Health Record Systems**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): ENGL 101*, COMP 179*  
Equivalent Course(s): HINF 160CE, HLRC 162  
You will explore the structure of the health care system and uses of health information. You will study federal and provincial legislation regarding health records and the ethical/legal considerations involved in the confidentiality of health information. You will examine basic health information management department procedures.

**HINF 161 Health Information Analysis 1**  
Credit Units: 2.0  
Course Hours: 30.0  
Prerequisite(s): COMP 174, CLIN 236*  
Equivalent Course(s): HINF 161CE  
You will learn how to retrieve, analyze and present data/information. You will also become familiar with the use and content of the basic Canadian Institute for Health Information (CIHI) reports, data presentation and graphic techniques.

**HINF 260 Epidemiology and Population Health**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): PRAC 165  
Equivalent Course(s): HINF 260CE  
Your studies will include the nature and scope of epidemiology (especially as these relate to health information systems). You will study the distribution of diseases in populations and factors that influence the occurrence of disease. You will learn the steps involved in writing a research paper and apply the steps to a specific disease model.

**HINF 261 Health Information Analysis 2**  
Credit Units: 2.0  
Course Hours: 30.0  
Prerequisite(s): PRAC 165  
Equivalent Course(s): HINF 261CE  
Building on the skills you developed in Health Information Analysis 1 (HINF 161), your studies will focus on the research, design and methodology of health information analysis and utilization. You will also review various health information sources and documentation. You will be introduced to data analysis, nomenclatures, various classification systems and Management Information Systems (MIS) standards.

**HINF 262 Health Care Law and Ethics**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): HINF 264*  
Equivalent Course(s): HINF 262CE  
You will become familiar with health law (especially as it pertains to health information) and the issues associated with the privacy, confidentiality and security of health information. You will identify appropriate ethical conduct in pursuing your professional role and gain an overview of legislation relating to health care and health information. You will examine the legal responsibilities and ethical situations for Indigenous peoples under health law. You will be able to design policies related to privacy, confidentiality, security and participate in risk management activities.

**HINF 263 Human Resource Management and the Employee**  
Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s): HINF 263CE, HR 120  
Your studies will focus on management theories, maintaining collaborative relationships, managing and evaluating staff development, examining self-performance and development, and discussing human rights and labour standards.

**HINF 264 Theories and Concepts of Program Management**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): PRAC 165  
Equivalent Course(s): HINF 264CE  
You will gain an understanding of health information systems, project management, policies and procedures and needs assessment. Your studies will prepare you for business and strategic planning and introduce you to program management concepts.
**HINF 265 Health Information Systems**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): COMP 175*, COMP 176*  
Equivalent Course(s): HINF 265CE  
Your studies will prepare you to manage and evaluate changes in computer technology and information systems. You will acquire the skills to participate in analyzing and planning for system changes that affect health information files.

**HINF 266 Health Standards and Informatics**  
Credit Units: 2.0  
Course Hours: 30.0  
Prerequisite(s): HINF 261*, HINF 264*  
Equivalent Course(s): HINF 266CE  
Your studies will involve learning about health informatics and how eHealth impacts the health information management professional. You will study common health informatics standards, including Health Level Seven (HL7).

**HIST 100 History of Agriculture**  
Credit Units: 3.0  
Course Hours: 45.0  
You will receive an overview of the history of Canadian agriculture from pre-contact to present day. You will examine climate and geography, Indigenous peoples, immigration, farm settlements and the formation of agricultural societies. You will also examine new markets, product segmentation and diversification.

**HIST 221 Architectural History: Context for Saskatchewan**  
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): HIST 220  
Your studies will focus on a survey of art, culture and architecture in indigenous, classical, medieval, renaissance and modern societies. You will gain an understanding of the relationship between architecture and social values, and the influence of early precedents on later design. You will also examine Saskatchewan's architectural heritage and analyze case studies in building preservation, restoration and rehabilitation.

**HIST 280 World History**  
Credit Units: 3.0  
Course Hours: 45.0  
You will study major patterns of change and continuity from 1450 to the 21st Century. You will learn to interpret change and historical causation, which will increase your ability to perform comparative analysis. You will focus on forces that cut across societies globally, and relate these forces to current issues in politics, economics, religion, gender and culture.

**HLTH 100 Specialized Therapeutics**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): GERI 100, HLTH 101, HLTH 102, HLTH 103, MHA 100, PALL 100  
Equivalent Course(s): HLTH 100CE  
You will study advanced assessments and focus on the skills involved in community patient care. You will study the fundamentals of safe specimen collection and immunizations. You will participate in labs and online discussions that will help you to develop the skills necessary for assessing and providing care for patients specific to home health, wound care, phlebotomy and immunizations. Upon completion of this course you will receive a statement of achievement in phlebotomy, spirometry and Transportation of Dangerous Goods.

**HLTH 101 Chronic Disease Management**  
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): HLTH 101CE  
You will study the pathophysiology of common disease processes. You will focus on the management of diabetes, chronic pain, cancer and respiratory and cardiac disorders. You will also study culture and ethnicity and the care of special needs patients. You will participate in labs and online discussions designed to help develop the skills required to assess and assist a patient in their chronic disease management.

**HLTH 102 Community Paramedic Role and Prevention Strategies**  
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): HLTH 102CE  
You will study the role of a community paramedic as both members of a health care team and in health promotion. You will focus on determinants of health, the concepts of primary health care and how health care services are delivered. You will also explore the different health related community resources and housing options available. You will participate in online discussions to help you to better understand the role of a community paramedic.
## Course Descriptions

### HLTH 103 Community Assessment
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** HLTH 103CE  
You will perform a community assessment by identifying community services available, health status, demographics and current gaps in health services. You will use your results to design a plan for implementation of a community paramedic.

### HLTH 104 Wholistic Health
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Equivalent Course(s):** HLTH 104CE  
You will learn a wholistic approach that promotes health and wellness of all Indigenous and non-Indigenous persons with disabilities and disability support workers. You will study the role of the disability support worker in promoting person-centred decision-making, sexual well-being, abuse prevention and intervention in your professional role.

### HLTH 105 Fatigue Management
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Equivalent Course(s):** HLTH 105CE  
You will gain an understanding of fatigue management concepts and principles through exploration of individual and organizational factors that are linked to increased risk of fatigue. Using practical tools, you will develop a basic fatigue management plan that addresses the effects of fatigue, concepts of sleep science and effective strategies to reduce the risks associated with fatigue. The course explores topics through various online activities such as self-assessments, discussions, and engaging assignments.

### HLTH 106 Psychological Health and Safety
- **Credit Units:** 2.0  
- **Course Hours:** n/a  
- **Equivalent Course(s):** HLTH 106CE  
You will be introduced to the National Standard of Canada for Psychological Health and Safety. You will learn about the 13 psychosocial factors that promote mental health, psychological safety, and workplace engagement while reflecting on their personal workplace experiences. The course involves various learning activities to deepen students’ knowledge of the importance and benefits of incorporating a Psychological Health and Safety Program into the workplace. You will gain practical strategies for mental health promotion in the workplace, including resources for creating and implementing a psychological wellness plan.

### HLTH 120 Communicable Diseases
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Equivalent Course(s):** SPCR 180  
You will examine the profiles of common communicable diseases both in the community and in institutional settings. You will practice specific prevention strategies.

### HLTH 162 Understanding Diabetes
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Equivalent Course(s):** HLTH 162CE  
You will study the basics of diabetes, including support required by the client in diabetes management and prevention. You will learn about risk factors, what happens in the body when diabetes develops, the different types of diabetes, and how diabetes can be prevented.

### HLTH 163 Managing Diabetes
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** HLTH 162  
- **Equivalent Course(s):** HLTH 163CE  
You will learn the five important parts of diabetes management and ways to support the client in promoting and reinforcing the importance of a healthy lifestyle. You will study the basic actions of oral medications and insulin, their side effects and what to do about them. You will also learn how to address cultural traditions and differences in managing diabetes.

### HLTH 164 Managing Highs and Lows
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** EDUC 160  
- **Equivalent Course(s):** HLTH 164CE  
You will learn how to support the client in preventing and managing the two acute complications of diabetes (hypoglycemia and hyperglycemia). You will be introduced to the tools used to monitor for changes in blood glucose, how to use them and what to do with the results. You will also learn how to document and report your findings.
## Course Descriptions

### HLTH 165 Lab Component
- **Credit Units**: 1.0  
- **Course Hours**: 15.0  
- **Prerequisite(s)**: HLTH 164  
- **Equivalent Course(s)**: HLTH 165CE
You will discuss the role of community development in diabetes prevention and management. You will review the Behavioral Change Model. You will practice basic teaching principles in a small group. You will practice blood glucose monitoring and ketone testing and demonstrate these procedures accurately prior to being certified to perform them with clients. You will also practice basic foot assessment.

### HLTH 166 Long-term Complications
- **Credit Units**: 3.0  
- **Course Hours**: 45.0  
- **Prerequisite(s)**: HLTH 164  
- **Equivalent Course(s)**: HLTH 166CE
Your studies will focus on the diabetes complications that can be prevented or delayed. You will be introduced to the different tools used to monitor diabetes status and identify how they help in preventing complications. You will learn the importance of good foot and skin care, how to assess for changes and how to teach clients the basics of good foot care.

### HLTH 167 Special Considerations
- **Credit Units**: 3.0  
- **Course Hours**: 45.0  
- **Prerequisite(s)**: HLTH 166  
- **Equivalent Course(s)**: HLTH 167CE
You will examine situations that can affect the day-to-day management of diabetes. You will learn how to assess and care for clients with an acute illness. You will also learn why pre-planning for events like feasts, travel, sick days or surgery help to enhance diabetes self-care.

### HLTH 169 Fundamentals of Industrial Hygiene 1
- **Credit Units**: 4.0  
- **Course Hours**: 60.0  
- **Equivalent Course(s)**: HLTH 179CE, HLTH 188
You will be introduced to the principles of industrial hygiene, sometimes referred to as occupational hygiene. You will be prepared to anticipate, recognize, evaluate, and control workplace hazards. Specific topics include occupational contamination, chemical, biological and radiation hazards.

### HLTH 182 Quality of Life Enhancements
- **Credit Units**: 3.0  
- **Course Hours**: 45.0  
- **Equivalent Course(s)**: HLTH 182CE
You will explore community based and person-centred planning and decision making based on the full participation of persons with disabilities. You will use a wholistic approach to quality of life enhancements and explore the Indigenous community.

### HLTH 183 Health Promotion in Youth Care
- **Credit Units**: 3.0  
- **Course Hours**: 45.0  
- **Equivalent Course(s)**: HLTH 183CE
You will discuss a holistic approach to wellness with a focus on personal health. You will receive instruction in the lifestyle practices that promote health and wellness. You will study workplace safety practices and have the opportunity to demonstrate competency in practical skills necessary for worker and client safety.

### HLTH 184 Health Promotion
- **Credit Units**: 2.0  
- **Course Hours**: 30.0  
- **Equivalent Course(s)**: HLTH 184CE
You will learn lifestyle practices, occupational safety protocols, and standard precautions that promote health and wellness of persons with disabilities and disability support workers.

### HLTH 187 Disability Management
- **Credit Units**: 4.0  
- **Course Hours**: 60.0  
- **Equivalent Course(s)**: HLTH 187CE
You will be introduced to disability management as a key essential component of an occupational health and safety program. Disability management starts at the time of illness or injury and continues until the individual has recovered and returned to work. In this course, you will acquire knowledge and skill to develop and implement a disability management program including Workers’ Compensation Board (WCB) claims information and return to work plans.
HLTH 189 Fundamentals of Industrial Hygiene 2
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s): HLTH 179
Equivalent Course(s): HLTH 189CE
Industrial Hygiene is the science dedicated to the prevention of occupational illness or disease. This course builds on HLTH 188 Fundamentals of Industrial Hygiene 1. This course will prepare you to anticipate, recognize, evaluate and control noise, thermal and other specific workplace hazards. In addition you will be introduced to respiratory and ventilation methods of control.

HLTH 190 Incident Investigation
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s): LAW 100, SFTY 173
Equivalent Course(s): HLTH 190CE
You will be introduced to incident investigation which is a critical tool in preventing incident reoccurrence and worker injury and illness in the realm of occupational health and safety. You will study incident causation models and the processes to investigate incidents.

HLTH 191 Ergonomics
Credit Units: 4.0    Course Hours: 60.0
Equivalent Course(s): HLTH 191CE
You will focus on the principles of ergonomics to examine the ergonomic factors that impact the human body. You will investigate the relationship between the human body and machines and review basic computer and industrial settings. You will further explore ergonomic programming, training and communication strategies to complete basic ergonomic assessments in your workplace.

HLTH 192 Respiratory Fit Testing Train the Trainer
Credit Units: 1.0    Course Hours: 16.0
Equivalent Course(s): HLTH 192CE
You will examine the most recent Canadian Standards Association standard and Saskatchewan legislation related to respiratory fit testing. You will examine the implementation of the standard in the workplace by occupational health and safety practitioners. You will also have an opportunity to conduct and observe both qualitative and quantitative fit testing. You will be trained as a Respiratory Fit Tester and be able to fit test other employees at your worksite. This course does not cover respirators required for Immediately Dangerous to Life or Health (IDLH) or oxygen deficient atmospheres.

HLTH 200 Health Care Operations
Credit Units: 3.0    Course Hours: 45.0
You will examine the unique inner workings of health care facilities and how they operate with focus on LEAN concepts, customer service, mental health and safety and security.

HLTH 240 Health Promotion
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): COUN 245
Equivalent Course(s): WORK 251
You will examine health promotion history, and a variety of health promotion models, processes, strategies, activities, and programs relating to community health and wellness. You will examine the connection between community development, prevention programs, cultural influence, and health promotion activities. You will evaluate health promotion activities based on current health-related topics/issues.

HLTH 262 Community Oral Health 1
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): SOCI 171
You will be introduced to the health care system and the significant social, political, cultural and economic forces directing the system. You will discuss the determinants of health and apply them to oral health. You will write learning outcomes, select and operate audiovisual equipment, learn practical aspects of public speaking and present a short instructional session in preparation for promoting oral health to groups.

HLTH 266 Diabetes Management: A Review
Credit Units: 3.0    Course Hours: 45.0
Equivalent Course(s): HLTH 266CE
Your studies will focus on a review of the basic features of diabetes and diabetes management. You will discuss topics related to pathophysiology (including population health concepts, epidemiology and demographics of diabetes, risk factors for diabetes and key client management strategies).
HLTH 267 Primary Prevention
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  HLTH 266
Equivalent Course(s):  HLTH 267CE
Your studies will focus on primary prevention and a population health approach to diabetes prevention by considering the determinants of health and the effectiveness of interventions. You will explore strategies to promote the importance of diabetes prevention using community development principles. You will be introduced to evidence-based practice and its role in health promotion and the primary prevention of diabetes. You will also explore prevention strategies aimed at facilitating behaviour change in people at high risk for developing diabetes.

HLTH 268 Insulin and Oral Agents
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  HLTH 269
Equivalent Course(s):  HLTH 268CE
You will study the oral diabetes medications and insulins used in diabetes management in Canada, focusing on their actions, advantages/disadvantages of different regimens and principles of management. You will apply this information in client education, considering drug interactions and use of over-the-counter (OTC) medications. You will learn about complementary and alternative therapies and diabetes. You will become aware of financial and support programs for people living with diabetes.

HLTH 269 Nutrition Management
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  CLTR 260
Equivalent Course(s):  HLTH 269CE
You will study both the principles of healthy eating and the specifics of nutritional management of diabetes. You will learn how to use “Just the Basics” and other tools to provide nutrition education for people with diabetes. You will learn about special considerations when dealing with bariatric clients and the management of diabetes. You will give consideration to special nutritional needs that may be concurrent with diabetes, including using alcohol, dining out, vegetarian eating, travelling, eating disorders and altered work patterns. You will also consider the influence of cultural differences in eating on diabetes management.

HLTH 270 Activity Management
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  HLTH 268
Equivalent Course(s):  HLTH 270CE
You will review the benefits of physical activity and its role in diabetes management. You will explore the limitations and barriers people living with diabetes face when incorporating physical activity into the management plan.

HLTH 271 Complications: Acute and Chronic
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  HLTH 270
Equivalent Course(s):  HLTH 271CE
You will examine the five major long-term complications of diabetes. Your studies will focus on support to the client in assessment, management and prevention strategies. You will also examine the physiological changes related to aging that increase the risks for diabetes complications.

HLTH 272 Diabetes Care Across the Lifespan
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  HLTH 271
Equivalent Course(s):  HLTH 272CE
You will examine strategies for the optimum support and management of people living with diabetes using the Canadian Clinical Practice Guidelines for the prevention and management of diabetes in Canada as a framework. You will study gender-specific health issues in diabetes, and you will examine physiological changes related to growth, development and aging, and their effects on diabetes management. You will also study the psychosocial and mental health issues of people living with a chronic illness experience.

HLTH 273 Lab Component
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s):  CLTR 260
Equivalent Course(s):  HLTH 273CE
You will explore the role of community development and capacity building in diabetes prevention and management. You will practice motivational interviewing techniques. You will look at how current issues and trends affect diabetes care, prevention and education. You will practice performing a foot assessment.
## Course Descriptions

### HLTH 274 Community Oral Health 2
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** HLTH 262, DHYG 276  
- **Corequisite(s):** DHYG 277  
You will acquire knowledge needed to meet specific oral health needs of community groups. You will learn formal and informal information gathering techniques and study situational leadership styles. You will collaborate with community partners and assess the need for health promotional events and educational activities for underserviced community groups. You will also initiate a dental hygiene research project.

### HLTH 275 Community Oral Health Projects
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** HLTH 274  
You will have an opportunity to plan, implement and evaluate oral health programs, health promotional events and educational activities for under-serviced community groups. You will develop both written and oral reports on your project.

### HORT 400 Urban Forestry
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
You will be introduced to horticultural practices with practical application to pruning landscape trees and shrubs within an urban environment. You will study exotic plant species and their identification, establishment and maintenance. Your background in landscaping and plants will aid in an assessment of a site visit for the purpose of recommending horticultural practices. You will be provided with an insight to a variety of urban forestry equipment and their relative costs and safe use.

### HR 100 Introduction to Human Resource Management
- **Credit Units:** 1.0  
- **Course Hours:** 15.0  
You will study the planning function of management. The course content includes department organization, professionalism, and disaster planning.

### HR 120 Introduction to Human Resource Management
- **Credit Units:** 4.0  
- **Course Hours:** 64.0  
- **Equivalent Course(s):** ADMN 222, HR 120CE  
Your studies will focus on an overview of human resource management and practices. You will learn the impact of job analysis; planning, recruiting, and selection processes; training, developing and compensation considerations, and management performance and labour relations. You will discuss employee and organizational ethics throughout the course, and your studies will emphasize the use of human resource management to achieve high organizational performance.

### HR 200 Human Resource Management
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** HR 100  
You will focus on the staffing and directing (leading) functions of management. The course content includes the employment process, performance appraisals, compensation, discipline, labour relations, collective bargaining, grievance procedures, labour standards and Occupational Health and Safety legislation.

### HR 201 Introduction to Human Resource Management
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
You will discuss human resource management and practices. You will learn about job analysis; planning, recruiting, and selection processes; training, developing and compensation considerations, and management performance and labour relations.

### HR 230 Talent Acquisition
- **Credit Units:** 4.0  
- **Course Hours:** 64.0  
- **Equivalent Course(s):** ADMN 230, HR 230CE  
Your studies will focus on the role and functions of recruitment and selection of human resource management. You will develop an appreciation for professional Talent Acquisition practices that meet Canadian legal standards. You will also develop an understanding of the essential role of sound staffing practices in relation to organizational productivity. You will recognize the constraints under which an organization operates and how it relates to the process of recruitment and selection.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR 231</td>
<td>Strategic Compensation</td>
<td>5.0</td>
<td>80.0</td>
<td>ADMN 231, HR 231CE</td>
<td>You will develop a general understanding of the processes, techniques and issues human resource professionals encounter in developing and administering a total rewards program. You will learn the strategic importance of total rewards and how its issues can impact other areas of human resources. In addition, you will gain an understanding of the impact of contemporary social trends and legislative developments that affect decision making about the design of total rewards programs.</td>
</tr>
<tr>
<td>HR 232</td>
<td>Training and Development</td>
<td>5.0</td>
<td>80.0</td>
<td>ADMN 232, HR 232CE</td>
<td>You will analyze the strategic value of developing talent within organizations with a focus on employee training and development. Specifically, through a combined theory and hands-on approach, your studies will examine the functions of training needs analysis, training program design, the selection and application of training methods, transfer strategies, training evaluation and building employee engagement in career development.</td>
</tr>
<tr>
<td>HR 233</td>
<td>Labour Relations</td>
<td>4.0</td>
<td>64.0</td>
<td>ADMN 233, HR 233CE</td>
<td>Your studies will focus on labour relations, including union certification procedures, union structure, managing in unionized environments, applicable legislation affecting labour relations, collective bargaining, dispute resolution methods, and recent developments in the labour relations field. You will be encouraged to discuss and debate labour relations issues, to critically evaluate case studies and to monitor and report on current labour relations events. You will develop practical skills and abilities to reach a collective bargaining agreement.</td>
</tr>
<tr>
<td>HR 234</td>
<td>Employee Engagement</td>
<td>5.0</td>
<td>80.0</td>
<td>ADMN 234, HR 234CE</td>
<td>You will focus on the major influences on employee engagement and the impact on individual managers and the organization. You will examine the importance of sound employee relationship practices in the role of reaching organizational objectives. You will look at equity and fairness, the influence of culture, diversity and equity, motivation, job design principles, performance management and occupational health and safety.</td>
</tr>
<tr>
<td>HR 235</td>
<td>Collective Bargaining and Interest-Based Negotiations</td>
<td>5.0</td>
<td>80.0</td>
<td>ADMN 235</td>
<td>Through intensive simulations and experiential exercises, you will develop practical skills and abilities necessary to reach a collective agreement. The course includes an introduction to the collective bargaining process, where you will gain an awareness of the theory, models, and legal framework.</td>
</tr>
<tr>
<td>HR 236</td>
<td>Organizational Change</td>
<td>4.0</td>
<td>64.0</td>
<td>ADMN 236, HR 236CE</td>
<td>You will develop strategies and processes related to creating and fostering an evolving workplace culture that supports innovation, change, quality and learning and results in harmony between the organization’s needs and employee’s expectations while remaining consistent with the organization’s business plan in a competitive and changing environment. The course content emphasizes the importance of implementing change in the proper sequence of events and interactions.</td>
</tr>
<tr>
<td>HR 237</td>
<td>Wellness in the Workplace</td>
<td>4.0</td>
<td>64.0</td>
<td></td>
<td>Your studies will focus on an overview of occupational health and safety systems as it relates to Human Resources responsibility. You will examine societal and organizational aspects, core principles, essential elements, a variety of legislation, psychological hazards, probability and severity of risk, disability management, duty to accommodate, and Saskatchewan Workers’ Compensation Board.</td>
</tr>
<tr>
<td>HR 280</td>
<td>Human Resource Management</td>
<td>4.0</td>
<td>60.0</td>
<td>MGMT 286*</td>
<td>You will focus on the staffing and directing function of management to include human resource planning, recruitment, selection, orientation, training, development, performance appraisals, compensation, discipline, labour relations and legislation.</td>
</tr>
</tbody>
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Register online at saskpolytech.ca or call 1-866-467-4278

Sask Polytech Calendar 2019-2020
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
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</thead>
<tbody>
<tr>
<td>HR 300</td>
<td>Human Resource Management</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>HR 400</td>
<td>Human Resource Management and Industrial Relations</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>HSTC 183</td>
<td>Histotechniques</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>HSTC 184</td>
<td>Microanatomy</td>
<td>2.0</td>
<td>35.0</td>
</tr>
<tr>
<td>HSTC 185</td>
<td>Histotechnology 1</td>
<td>3.0</td>
<td>40.0</td>
</tr>
<tr>
<td>HSTC 187</td>
<td>Histotechnology 2</td>
<td>3.0</td>
<td>40.0</td>
</tr>
<tr>
<td>HSTC 188</td>
<td>Introduction to Histology &amp; Cytology</td>
<td>2.0</td>
<td>32.0</td>
</tr>
<tr>
<td>HUMD 100</td>
<td>Child and Adolescent Development</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>HUMD 101</td>
<td>Guiding Behaviour</td>
<td>3.0</td>
<td>45.0</td>
</tr>
</tbody>
</table>

**HR 300 Human Resource Management**
Credit Units: 3.0  Course Hours: 45.0
Your studies will focus on an overview of human resource management and practices. You will learn the impact of job analysis on planning, recruiting, and selection processes; training, developing and compensation considerations, and management performance and labour relations. Employee and organizational ethics are discussed throughout the course with an emphasis on using human resource management to achieve high organizational performance.

**HR 400 Human Resource Management and Industrial Relations**
Credit Units: 3.0  Course Hours: 45.0
Your studies will focus on an overview of human resource management and practices. You will learn the planning, recruiting and selection processes; training, developing and compensation considerations as well as management performance and labour relations. Employee and organizational ethics will be discussed throughout the course with an emphasis on using human resource management to achieve high organizational performance.

**HSTC 183 Histotechniques**
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  ANAT 183, ANAT 184, BOTA 183, BOTA 184
You will receive an overview of the principles of microtechniques (including preparing plant and animal tissues for the production of permanent slides). You will learn proper use, care and handling of tissue processing equipment, microtomes and related slide preparation equipment. You will receive training in the preparation and use of tissue fixatives and stains, embedding, mounting and storing of paraffin sections. You will perform tissue sectioning, staining, and production of permanent slides. Special techniques including plastic embedding, histochemical staining, fluorescent staining and in situ hybridization will also be introduced.

**HSTC 184 Microanatomy**
Credit Units: 2.0  Course Hours: 35.0
Prerequisite(s):  MTER 180, APHY 282*
You will recognize functional cells and tissue arrangements. You will also study the micro-anatomical structure of the body's major organs.

**HSTC 185 Histotechnology 1**
Credit Units: 3.0  Course Hours: 40.0
Prerequisite(s):  (PROC 180 or PROC 182), APHY 282*
You will be introduced to the principles and practices of preparing clinical specimens for histological examination (including fixation, decalcification processing, embedding and microtomy).

**HSTC 187 Histotechnology 2**
Credit Units: 3.0  Course Hours: 40.0
Prerequisite(s):  HSTC 184, HSTC 185
You will discuss the principles and practices used in a laboratory and prepare clinical histology specimens for demonstrating cellular and non-cellular elements.

**HSTC 188 Introduction to Histology & Cytology**
Credit Units: 2.0  Course Hours: 32.0
Prerequisite(s):  APHY 189*, MTER 180, PROC 180*, PROC 181*
You will receive the theory and practice required to assist with the preparation of clinical specimens for microscopic examination. The course content includes specimen receiving and processing, block preparation and basic staining.

**HUMD 100 Child and Adolescent Development**
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  HUMD 100CE
Your studies will focus on the period of development from conception to adolescence. You will receive information about the effects of heredity and the environment on the emotional, social, cognitive and physical development of children and adolescents. The course also provides an introduction to the theories of learning and personality, and the methods of studying human behaviour.

**HUMD 101 Guiding Behaviour**
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  HUMD 101CE, MGMT 281
You will discuss perspectives that educators have regarding the classroom and behaviour. You will examine how cognitive development plays a role in guiding behaviour. You will be able to describe the role that the environment plays in determining and guiding behaviour. You will be introduced to an overview of positive guidance and have the opportunity to select and implement strategies that teach self-control and self-regulation.
HUMD 142 Lifespan Issues
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): HUMD 280
You will examine human development across the lifespan. Your studies will focus on developmental factors throughout a person's life that impact on the choices that they make.

HUMD 144 Life Span Issues
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CDEP 158, CDEP 178
Equivalent Course(s): HUMD 143
Using a holistic approach, you will examine culture in human development and the influence of substance use and/or abuse and mental health issues in each stage of the life span.

HUMD 181 Lifespan Development A
Credit Units: 3.0  Course Hours: 40.0
Your studies will focus on the period from conception to pre-adolescence. You will receive information about the effect of heredity and the environment on the emotional, social, cognitive and physical development of children. The course also provides an introduction to the theories of learning and personality, and the methods of studying human behaviour.

HUMD 183 Child Guidance 1
Credit Units: 3.0  Course Hours: 50.0
Equivalent Course(s): HUMD 183CE
You will examine the strategies of developmentally appropriate child guidance. The role of the adult in anticipating and encouraging appropriate behaviour is emphasized. You will practice techniques for intervening with children while encouraging a co-operative attitude, a sense of autonomy and a positive self-image.

HUMD 183CE Child Guidance 1
Credit Units: 3.0  Course Hours: 50.0
Summary

HUMD 187 Human Growth and Development
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): HUMD 187CE, HUMD 188
You will learn the physical, social, intellectual and emotional aspects of human growth and development from infancy to old age. You will also study the effects of aging on society.

HUMD 188 Human Growth and Development
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s): HUMD 188CE
You will learn the physical, sensory, perceptual, cognitive, social, and personality stages of human growth and development from conception to death.

HUMD 191 Sexuality and Disabilities
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): HUMD 186, HUMD 191CE
You will study sexual biology, sexual attitudes and sexual behaviours as they relate to persons with disabilities. You will study the role of the disability support worker in promoting person-centred decision making and sexual well-being. You will learn the essential role of dignity in person-centred decision making, and abuse prevention and intervention in your professional role.

HUMD 200 Child Guidance 2
Credit Units: 3.0  Course Hours: 40.0
Prerequisite(s): PRAC 181 or PRAC 105
Equivalent Course(s): HUMD 200CE, MGMT 281
The course is a continuation of Child Guidance 1. You will learn advanced techniques of guiding children that can be applied to more challenging behaviours.

HUMD 280 Lifespan Development B
Credit Units: 3.0  Course Hours: 40.0
Prerequisite(s): HUMD 181
Equivalent Course(s): ECD 227, PSYC 185
You will examine adolescence and adulthood. This includes the physical, cognitive, emotional and social changes of youth, middle age, and later life. You will also explore current research about death and dying.

HUMR 100 Roles and Responsibilities
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): HUMR 100CE
You will examine the mandates and roles of agencies involved with crime or traumatic events. You will examine the roles that staff and volunteers play in the delivery of services in this area.
Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Description</th>
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</thead>
<tbody>
<tr>
<td>HUMR 101</td>
<td>Clients with Diverse Needs</td>
<td>2.0</td>
<td>30.0</td>
<td>HUMR 101CE</td>
<td></td>
<td>You will develop specific skills for interacting with diverse client groups. You will identify and practice strategies for providing services to Aboriginal clients, clients who are new immigrants, clients with disabilities, clients with mental health issues as well as other emerging diverse client needs.</td>
</tr>
<tr>
<td>HUMR 102</td>
<td>Professional Education and Career Planning</td>
<td>4.0</td>
<td>60.0</td>
<td>HUMR 102CE</td>
<td></td>
<td>You will examine both written and verbal interpersonal communication skills and their application in the workplace. Utilizing the principles of adult learning you will focus on the characteristics of adult learners, cultural influences, generational differences and strategies to improve research and development of occupational health and safety concepts.</td>
</tr>
<tr>
<td>HUMR 180</td>
<td>Roles and Responsibilities</td>
<td>3.0</td>
<td>45.0</td>
<td>HUMR 180CE</td>
<td></td>
<td>You will learn the roles and responsibilities of educational assistants within the school setting and society. You will explore legal and ethical implications of your role as an educational assistant and develop an understanding of the importance of professional behaviour.</td>
</tr>
<tr>
<td>HUMR 186</td>
<td>Interpersonal Skills</td>
<td>3.0</td>
<td>45.0</td>
<td>COMM 291, COMM 295, HUMR 186CE, NEPS 114, NURS 114</td>
<td></td>
<td>You will be introduced to the importance of interpersonal skills in the human services professions. You will develop effective listening and speaking behaviors that facilitate client interactions.</td>
</tr>
<tr>
<td>HUMR 187</td>
<td>Human Factors and Crew Resource Management</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td>You will relate aviation physiology, psychology, medical and interpersonal issues to survival skills and your ability to function as a safe and effective flight crew member. You will also practice your skills by preparing a survival plan.</td>
</tr>
<tr>
<td>HUMR 281</td>
<td>Group Facilitation</td>
<td>3.0</td>
<td>45.0</td>
<td>HUMR 281CE</td>
<td>PRAC 385</td>
<td>You will be introduced to the foundations and structure of group work. You will learn about group dynamics and the role of effective communication in group process. You will explore the concepts of roles, norms, motivation, diversity leadership and power as they relate to being an effective group member. Finally, you will be provided with the opportunity to develop practical skills and experience in group facilitation.</td>
</tr>
<tr>
<td>HUMS 100</td>
<td>Traumatic Events Coordination</td>
<td>2.0</td>
<td>24.0</td>
<td>HUMS 100CE</td>
<td></td>
<td>You will study the role of Victim Services in responding to traumatic events. You will learn how to coordinate services within the community to develop a coordinated response plan.</td>
</tr>
<tr>
<td>HUMS 180</td>
<td>Comprehensive Behavioural Support</td>
<td>3.0</td>
<td>45.0</td>
<td>HUMS 180CE</td>
<td></td>
<td>You will study the implementation process of various approaches including restrictive procedures, trauma informed care and strategies used to support positive behaviours.</td>
</tr>
<tr>
<td>HVAC 101</td>
<td>Environmental Control Systems</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td></td>
<td>You will become familiar with the Heating, Refrigeration and Air Conditioning Institute's program on environmental awareness regarding Ozone Depleting Substances.</td>
</tr>
<tr>
<td>HYDM 221</td>
<td>Hydrometeorology</td>
<td>2.0</td>
<td>32.0</td>
<td>MAT 101, PHYS 102</td>
<td></td>
<td>You will learn the basics of hydrometeorology with a focus on the atmospheric portion of the hydrological cycle. The course content includes humidity, precipitation, wind, air mass movement, climate, interception and infiltration.</td>
</tr>
</tbody>
</table>
# Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credit Units</th>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDO 200</td>
<td>Contaminant Hydrogeology</td>
<td>3.0</td>
<td>45.0</td>
<td>CHEM 201, ENVR 205, HYDO 201</td>
<td></td>
<td>You will discuss the technical, theoretical and practical aspects of contaminant hydrogeology including sources of contamination, mechanisms of groundwater flow and contaminant transport. In addition, you will study modeling approaches and common field practices.</td>
</tr>
<tr>
<td>HYDO 201</td>
<td>Groundwater Technology</td>
<td>4.0</td>
<td>60.0</td>
<td>MAT 111, SOIL 102</td>
<td>PHYS 102</td>
<td>You will discuss the principles of groundwater, drilling, design and construction. You will also discuss the maintenance requirements of wells, groundwater protection and groundwater law.</td>
</tr>
<tr>
<td>HYDO 202</td>
<td>Hydrology</td>
<td>3.0</td>
<td>45.0</td>
<td>MAT 110, PHYS 102</td>
<td></td>
<td>This course provides you an overview of hydrological processes, measurement techniques, and data analysis. You will study the movement of water in the hydrologic cycle via precipitation, interception, evapotranspiration, surface runoff, infiltration, soil moisture, groundwater flow and streamflow. Your studies will include applied aspects and local examples.</td>
</tr>
<tr>
<td>HYDO 225</td>
<td>Groundwater Technology</td>
<td>6.0</td>
<td>96.0</td>
<td>SOIL 120, MAT 246</td>
<td></td>
<td>You will discuss the principles of groundwater, drilling, design and construction. You will also discuss the maintenance requirements of wells, groundwater protection and groundwater law.</td>
</tr>
<tr>
<td>HYDO 228</td>
<td>Hydrology 1</td>
<td>3.0</td>
<td>40.0</td>
<td>HYDM 221, STAT 201</td>
<td>INST 231</td>
<td>You will learn the basic concepts of surface water hydrology with an emphasis on understanding the hydrological processes critical to the planning, design and operation of engineering projects for the management and utilization of water. You will acquire meteorological and hydrometric data sets to perform hydrologic analyses.</td>
</tr>
<tr>
<td>HYDO 229</td>
<td>Hydrology 2</td>
<td>4.0</td>
<td>64.0</td>
<td>HYDR 221, HYDO 228, INST 231</td>
<td></td>
<td>You will apply hydrologic principles to estimate stream flows, water supplies and flood potential. Modelling of rivers, reservoirs and river basins will be done. You will apply theoretical methods to problems in water supply, flood protection and reservoir design.</td>
</tr>
<tr>
<td>HYDR 100</td>
<td>Hydraulics</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td></td>
<td>You will learn the basic theory and practical application of hydraulic and electricity as it applies to hydraulics.</td>
</tr>
<tr>
<td>HYDR 107</td>
<td>Basic Hydraulics</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td>HYDR 170</td>
<td>You will learn the basic principles of hydraulics. You will gain an understanding of component construction and operation. You will also develop practical skills to repair these components.</td>
</tr>
<tr>
<td>HYDR 110</td>
<td>Hydraulic Basics Theory</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td>You will study basic hydraulic principles of flow and pressure, system and component operation and maintenance procedures. You will also learn to interpret symbolic diagrams to determine system operation.</td>
</tr>
<tr>
<td>HYDR 111</td>
<td>Hydraulic Basics Shop</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td>You will disassemble, inspect, measure, assemble, adjust and test hydraulic pumps, valves and motors on a test stand. You will disassemble and repair hydraulic cylinders from live machines or shop models. You will work with common types of hydraulic fittings and adaptors, and practice installing hose ends, flaring and bending tubing.</td>
</tr>
<tr>
<td>HYDR 112</td>
<td>Hydraulics Advanced Theory</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td></td>
<td>You will review the basics of a hydraulic system. Concepts such as open and closed center hydraulic systems will be discussed. Power-beyond, open and closed loop hydrostatics as well as load sensing systems will also be covered. Advanced diagnostic strategies will also be discussed.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDR 113</td>
<td>Hydraulics Advanced Shop</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will evaluate various components in a hydraulic circuit to determine function as well as serviceability. You will also perform system diagnosis on open center, closed center and power beyond hydraulic systems. Open and closed loop hydrostatics as well as a load sending hydraulic system will be evaluated. You will perform evaluations on live machines with hydraulic analyzers and perform adjustments or repair.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYDR 114</td>
<td>Hydraulic Basics Theory</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will study the basic hydraulic principles of flow and pressure, system component operation and maintenance procedures. You will also learn to interpret symbolic diagrams to determine system operation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYDR 115</td>
<td>Hydraulic Basics Shop</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will disassemble, inspect, measure, assemble, adjust and test hydraulic pumps, valves and motors on a test stand. You will disassemble and repair hydraulic cylinders from live machines or shop models. You will work with common types of hydraulic fittings and adaptors, and practice installing hose ends, flaring and bending tubing.</td>
<td></td>
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</tr>
<tr>
<td>HYDR 124</td>
<td>Introduction to Hydraulic Pumps and Valves</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>Your studies will focus on the basic principles of hydraulics, and you will gain an understanding of component construction and operation. You will examine the construction of hydraulic hoses, pumps and actuators. You will perform service procedures on an operational hydraulic system. You will learn how each component contributes to the operation of the basic hydraulic system.</td>
<td></td>
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</tr>
<tr>
<td>HYDR 125</td>
<td>Introduction to Hydraulic Flow Controls</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>Your studies will focus on the principles of hydraulic flow and the methods used to direct the flow and control the volume. You will examine hydraulic cylinders and motors. You will interpret hydraulic schematic symbols to develop basic problem-solving skills. You will analyze the various methods used in flow control. You will explore the construction and operation of fixed and variable flow controls.</td>
<td></td>
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</tr>
<tr>
<td>HYDR 150</td>
<td>Basic Hydraulics</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will learn the basic principles of hydraulics. You will gain an understanding of component construction and operation. You will also develop practical skills to repair these components.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYDR 173</td>
<td>Fluid Power</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): BESK 170, MATE 170, MATH 167</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>You will be introduced to hydraulic and pneumatic systems and applications in manufacturing processes. Your studies will include pumps, motors and valve systems. You will practice selecting appropriate components for hydraulic and pneumatic systems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYDR 220</td>
<td>Hydraulics</td>
<td>6.0</td>
<td>96.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): MAT 246, PHYS 102</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>You will receive an introduction to the application of basic fluid mechanics principles (including pressure measurement, forces on submerged planes, buoyancy and stability, general energy equation and viscosity) and the fundamentals of hydrodynamics (including hydraulics of flow in pipes, flow measurement devices and pumping system design).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYDR 221</td>
<td>Hydraulics</td>
<td>3.0</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): HYDR 220</td>
<td></td>
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<tr>
<td></td>
<td>You will continue your study of flow in pipe networks, building on the knowledge gained in HYDR 220 - Hydraulics (including friction and minor head losses). You will examine open channel flow, pump selection and flow measurement techniques. The course content includes practical laboratory experiments and writing laboratory reports.</td>
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</tr>
<tr>
<td>HYDR 283</td>
<td>Fluid Power</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): FMEC 288</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The course provides an introduction to hydraulic components, circuits and standard symbols. Design problems will involve sizing and selecting hydraulic components for typical applications. Your major assignment will involve designing a hydraulic system. Your lab work will provide you with hands-on exposure to hydraulic pumps, motors, cylinders and various types of control valves.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
HYDR 285 Fluid Mechanics
Credit Units: 4.0  Course Hours: 64.0
Equivalent Course(s): FMEC 288
You will study fluid properties, the behaviours of fluids either at
rest or in motion, Bernoulli’s equation, fluid forces and buoyancy.
Design problems involve pipe sizing, calculating head loss,
friction factors, power requirements and selecting pumps and
motors. Your lab work will include performing experiments on
pressure measurement, fluid friction losses and piping systems.

IMMU 179 Immunology
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): ANAT 183, ANAT 184
You will receive an introduction to hematology and study innate
and adaptive immunity and how they interact in health and
disease. You will perform blood cell enumeration and
differentiation and basic immunologic laboratory techniques and
discuss their medical applications.

IMMU 183 Immunology
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): MTER 180
Equivalent Course(s): IMMU 183CE
You will study the body's innate and acquired defense
mechanisms. Your studies will focus on the involvement of the
immune system in various disease states and clinical conditions.
The course also provides an introduction to the principles of
antigen-antibody reactions and their application in many
laboratory tests.

IMMU 281 Immunology
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): APHY 281
Your studies will focus on the various aspects of the immune
system along with clinical tests and their interpretations. You will
explore methods of stimulating the immune response and some
of the common immune-mediated diseases.

IMRC 182 Image Recording Introduction
Credit Units: 2.0  Course Hours: 37.0
Your studies will focus on the fundamentals of radiographic
processing. You will learn about screen and film combinations,
operating and maintaining processors, film fault analysis,
darkrooms and facets of quality control relating to x-ray film
processing.

IMRC 183 Image Acquisition & Processing
Credit Units: 4.0  Course Hours: 53.0
You will learn the factors affecting radiographic qualities and how
to develop a technique chart. You will study the theory of how
modern radiographic equipment works, as well as the theory and
application of digital image acquisition, processing, archiving,
and quality control.

INDG 100 Introduction to Indigenous Studies
Credit Units: 1.0  Course Hours: 15.0
You will receive an introduction to the Indigenous cultural groups
within Saskatchewan. You will learn about the colonization of
Indigenous peoples by the Canadian state. Your studies will
help you discuss current issues and explore possible solutions.

INDG 101 Introduction to Indigenous Studies
Credit Units: 1.0  Course Hours: 15.0
You will gain an understanding of the diversity and richness of
First Nations and Metis cultures, histories and current issues.

INDG 102 Aboriginal Cultural Awareness
Credit Units: 2.0  Course Hours: 30.0
You will gain an understanding of the diversity and richness of
First Nations and Métis cultures, histories and current issues.

INDM 101 Belts, Chains, Shafts and Gears
Credit Units: 3.0  Course Hours: 45.0
You will learn the theory and application of belts, chains, shafts,
gears and drives.

INDM 103 Conveyances
Credit Units: 1.0  Course Hours: 15.0
You will learn the theory and practical applications of belt
conveyance systems.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDM 104</td>
<td>Couplings, Clutches and Brakes</td>
<td>2.0</td>
<td>30.0</td>
<td>You will learn the theoretical applications of couplings, clutches and brakes.</td>
</tr>
<tr>
<td>INDM 105</td>
<td>Pneumatics and Compressors</td>
<td>2.0</td>
<td>30.0</td>
<td>You will learn the theory and application of pneumatics and compressors.</td>
</tr>
<tr>
<td>INDM 112</td>
<td>Machine Installation and Shaft Alignment</td>
<td>2.0</td>
<td>30.0</td>
<td>You will be introduced to the basics of machine installation and shaft alignment.</td>
</tr>
<tr>
<td>INDM 113</td>
<td>Lubrication, Bearings, Seals and Gaskets</td>
<td>4.0</td>
<td>60.0</td>
<td>You will learn the theory and practical application of lubrication, bearings and seals as they apply to power transmissions.</td>
</tr>
<tr>
<td>INDM 114</td>
<td>Rigging, Hoisting, Lifting and Safety</td>
<td>2.0</td>
<td>30.0</td>
<td>You will learn applicable occupational health and safety (OH&amp;S) regulations, rigging, signaling and load estimations. You will learn safe work practices regarding ladders, scaffolds, fire containment and WHMIS.</td>
</tr>
</tbody>
</table>
| INFC 180     | Infection Control and Safety                          | 2.0          | 25.0         | Equivalent Course(s): INFC 180CE
You will study the transmission of microorganisms, blood-borne pathogens (i.e. hepatitis virus and HIV), routine practices, isolation procedures, immunization for medical workers, sterilization and disinfection, biohazard waste, safety and WHMIS. |
| INFN 320     | Interior Finishes                                     | 3.0          | 45.0         | You will learn to identify various types of interior wall system used in construction. You will also learn to install a residential interior door and hardware. Installing casing, baseboards and other trim will also be covered. |
| INFN 321     | Wall Cabinets                                         | 3.0          | 45.0         | You will study the materials, terminology, and design considerations used in the construction of cabinets. You will also learn how to construct and install wall cabinets. |
| INS 100      | Principles and Practices of Insurance                 | 4.0          | 64.0         | Equivalent Course(s): INS 100CE
Your studies will provide an introduction to the principles and practices of the insurance industry. You will examine the multi-faceted nature of the insurance business, develop an understanding of risk and strategies to respond to it, and examine contract law as it relates to the industry. You will be introduced to the terms and practices of the insurance business. |
| INF 200      | Insurance on Property                                 | 5.0          | 80.0         | You will study the basics of insurance on commercial and personal property. The course content lays a foundation for references to discussions of property insurance in other courses in the Chartered Insurance Professional (CIP) program. Your studies will include discussion of current issues and legislation pertaining to insurance on property. |
| INS 202      | Essential Skills for the Insurance Broker and Agent   | 4.0          | 64.0         | You will study the insurance business from a broker’s and agent’s perspective. Your studies will focus on the needs of personal lines clients and small commercial risks. The course introduces the concepts of the broker as an insurance intermediary, follows the progress of risk from initial broker-client contract, continues through the evaluation and application, and ends with the binding and issuing of a policy. Your studies also include major insurance product lines and common policy transaction. |
| INS 204      | Essentials of Loss Adjusting                          | 5.0          | 80.0         | You will review concepts addressed in other insurance courses from a claims viewpoint. Your studies will include a review of the Canadian legal systems, contract law, and other areas pertinent to insurance claims. The course content includes the standards of conduct that apply to independent adjusters. |
# Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INS 205</td>
<td>Underwriting Essentials</td>
<td>4.0</td>
<td>64.0</td>
</tr>
<tr>
<td>INSL 220</td>
<td>Building Envelope</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td>INST 102</td>
<td>Instrument Measurement Theory</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>INST 103</td>
<td>Instrument Measurement Labs</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>INST 104</td>
<td>Instrumentation</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>INST 182</td>
<td>Instrumentation</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>INST 185</td>
<td>Aircraft Instruments</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td>INST 186</td>
<td>Instrument Flying</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>INST 205</td>
<td>Instrument Control</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>INST 210</td>
<td>Instrument Control</td>
<td>5.0</td>
<td>75.0</td>
</tr>
<tr>
<td>INST 221</td>
<td>Final Control Elements</td>
<td>5.0</td>
<td>75.0</td>
</tr>
</tbody>
</table>

**INS 205 Underwriting Essentials**
Credit Units: 4.0  Course Hours: 64.0
You will explore the role of an underwriter as an investor of shareholder capital on behalf of the insurer. Your studies will include the evolution of the role of underwriter, and you will also explore the process and factors that determine the acceptance or rejection of risk. You will develop both the “hard” and “soft” skills that you will require in your role as an underwriter.

**INSL 220 Building Envelope**
Credit Units: 1.0  Course Hours: 15.0
You will be able to describe the fundamentals of building science including heat transfer, air flow issues, moisture control, and air quality concerns. You will also be able to describe the procedures required to install insulation and air/vapour barriers to meet building standards.

**INST 102 Instrument Measurement Theory**
Credit Units: 4.0  Course Hours: 60.0
Corequisite(s): INST 103, MACH 106, MAT 100, PHYS 120
You will study the principles and measurement of pressure, level, temperature and flow. The theory presented will be reinforced by practical applications in INST 103 (Instrument Measurement Lab).

**INST 103 Instrument Measurement Labs**
Credit Units: 4.0  Course Hours: 60.0
Corequisite(s): INST 102, MACH 106, MAT 100, PHYS 120
You will apply the principles studied in INST 102 (Instrument Measurement Theory) to the operation, selection, sizing and specification of primary sensors and secondary instruments.

**INST 104 Instrumentation**
Credit Units: 4.0  Course Hours: 60.0
You will learn how to obtain meaningful measurements of electrical quantities and place these measurements in a useful format for engineering evaluation using manufacturers’ manuals and test equipment.

**INST 182 Instrumentation**
Credit Units: 2.0  Course Hours: 30.0
Corequisite(s): ELEC 188
You will study plant instrumentation and control systems. You will be introduced to various measuring devices as well as transmitters, recorders, controllers and actuators. You will describe the operation and maintenance of programmable controls and control systems. Your studies will also include interpreting various industrial drawings.

**INST 185 Aircraft Instruments**
Credit Units: 1.0  Course Hours: 15.0
You will study the principles of instrument function and limitations. You will practice interpreting instrument readings.

**INST 186 Instrument Flying**
Credit Units: 4.0  Course Hours: 60.0
You will study the regulations, theory and practical applications of instrument flying rules (IFR). Your studies will emphasize the use of Nav Canada and Canada Air Pilot publications.

**INST 205 Instrument Control**
Credit Units: 4.0  Course Hours: 60.0
Configuration software and process simulation will be used to help you learn how to design, analyze and evaluate various control strategies. The course content includes various process control applications (such as boiler, distillation column, compressor and heat exchanger controls).

**INST 220 Instrument Control**
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): ENG 120, INST 221
Corequisite(s): INST 224
You will be introduced to the operation and application of control loops, control signals and control functions.

**INST 221 Final Control Elements**
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): INST 102, INST 103, MACH 106, PHYS 120
You will study control valves and pressure relief devices. Evaluating, selecting, sizing, specifying and testing final control elements will be emphasized. Laboratory experiments will provide opportunities for you to verify theory concepts and practice maintaining, calibrating and installing control valves.

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INST 223 Basic Instruments
Credit Units: 3.0  Course Hours: 45.0
You will be introduced to the units, dimensions, and standards of measurements. You will study the sources of measurement errors, as well as how to estimate them. You will also learn how to identify instrument types and their performance characteristics. You will calculate the required resistors to extend the range of measurements of ammeters, voltmeters and ohmmeters. You will study direct current (DC) and alternate current (AC) bridges, and their applications in measurements. You will also examine the circuit diagrams of digital multi-meters, frequency meters and oscilloscopes and use them in the lab.

INST 224 Instrument Measurement
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): ENG 120, INST 221, MAT 221, PHYS 221, TCOM 103
Corequisite(s): INST 220
You will study the conventional electronic and smart instruments used to measure process variables, as well as the software and communicators designed for configuration and diagnostics. You will practice operating, evaluating, sizing, installing, and wiring. Your studies will include developing electrical loop wiring diagrams and practical lab exercises.

INST 225 Instrumentation
Credit Units: 3.0  Course Hours: 48.0
Prerequisite(s): ELTR 221, LABS 222
You will learn how to obtain meaningful measurements of electrical quantities and place these measurements in a useful format for engineering evaluation using manufacturers’ manuals and test equipment.

INST 227 Instrumentation and Measurement
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s): MAT 101, PHYS 102, HYDM 221*
You will receive an introduction to the instruments used for meteorological measurements in this lab-oriented course. These include precipitation, temperature, wind, sunshine, humidity, pressure, and evapotranspiration.

INST 228 Instrument Measurement
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): CADD 222, COAP 136, INST 220, INST 224
You will examine the operational theories of various microprocessor-based instruments and their applications in industry. Your studies will include practical lab exercises where you will configure and calibrate highway addressable remote transducer (HART) and Foundation Fieldbus smart instruments used for the measurement of flow, level, temperature and pressure.

INST 229 Electronic Instruments
Credit Units: 2.0  Course Hours: 30.0
You will be introduced to the digital storage oscilloscope (DSO), logic analyzer, and spectrum analyzer. Using the DSO, you will experiment with various sampling methods and triggering mechanisms. You will use the logic analyzer in timing and state modes of operation. You will contrast amplitude, frequency, and phase modulation as well as their frequency spectra. You will operate the spectrum analyzer and experiment with the Fast Fourier Transform (FFT) technique in order to display the spectrum of a signal. Your studies will include an introduction to fiber optics components.

INST 230 Analytical Instruments 1
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CHEM 125, INST 224, PHYS 221
You will study the implementation and purpose of analytical measurement systems. Given specifications, you will operate and calibrate pH, oxidation-reduction potential, conductivity, humidity, mass spectrometers and density analysers.

INST 231 Instrumentation and Measurement
Credit Units: 3.0  Course Hours: 50.0
Prerequisite(s): INST 227, SRVY 222
Your studies will focus on water level, stream discharge, well logging, sediment and water quality measurements. You will also operate water level data loggers and spend time in the field taking hydrometric measurements.

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# Course Descriptions

## INST 234 Analytical Instruments 2

<table>
<thead>
<tr>
<th>Credit Units: 4.0</th>
<th>Course Hours: 60.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>CHEM 225, INST 230</td>
</tr>
</tbody>
</table>

Building on the knowledge gained in INST 230 (Analytical Instruments 1), you will study other analytical devices (such as sampling systems, gas chromatographs, dissolved oxygen, humidity, turbidity, IR and UV spectroscopic analyzers, combustibles and toxic gas measurements).

## INST 236 Distributed Systems

<table>
<thead>
<tr>
<th>Credit Units: 6.0</th>
<th>Course Hours: 90.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>INST 228, CIRC 222, COAP 136</td>
</tr>
<tr>
<td>Corequisite(s):</td>
<td>COMP 238</td>
</tr>
</tbody>
</table>

You will configure a distributed control system including graphics displays to provide for the manual or automatic sequence operation of a process incorporating Highway Addressable Remote Transducer (HART) field devices. The course content includes proportional, integral, derivative (PID), cascade, feedforward control, output tracking, discrete and sequence function charts.

## INST 280 Controls and Instrumentation

<table>
<thead>
<tr>
<th>Credit Units: 2.0</th>
<th>Course Hours: 30.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>INST 182</td>
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</table>

You will study boiler controls and plant instrumentation in depth. You will also study the computer operating systems used in industry to monitor and control boiler firing systems and tour some of these plants.

## INST 288 Instrumentation and Controls

<table>
<thead>
<tr>
<th>Credit Units: 7.0</th>
<th>Course Hours: 100.0</th>
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</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>COSC 181, FMEC 288, ELTR 289</td>
</tr>
</tbody>
</table>

The course provides an introductory study of all aspects of industrial process control (including process signals, measurement devices, final control elements, controllers and control schemes). You will examine analog and discrete state processes. Laboratory exercises will supplement your study of pneumatic, electronic, digital and microprocessor-based measurement devices, transmitters, final control elements, PID controllers and programmable logic controllers (PLC’s).

## INTL 223 Data Communications

<table>
<thead>
<tr>
<th>Credit Units: 6.0</th>
<th>Course Hours: 96.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>MAT 240</td>
</tr>
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</table>

You will explore the fundamentals of data and computer communications in the three general areas of data communications, networking and protocols. You will learn how data signals are transmitted in a reliable and efficient manner. You will evaluate reliability and efficiency as you examine the topics of signal transmission, transmission media, signal encoding, interfacing, data link control and multiplexing. You will investigate the technology and architecture of the communications networks used to interconnect a large number of communicating devices such as a wide area network (WAN). You will also analyze protocols; the layered structures of hardware and software that support the exchange of data between systems.

## INTL 600 Information Technology

<table>
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<tr>
<th>Credit Units: 3.0</th>
<th>Course Hours: 45.0</th>
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<tr>
<td>Prerequisite(s):</td>
<td>CSEC 603, CSEC 605</td>
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</table>

You will learn the essential concepts of information security triad, confidentiality, integrity, and availability (CIA). You will examine the common vulnerabilities in computer and network systems and the methodology hackers use to exploit these systems.

## INTL 601 Information Technology Auditing

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<th>Credit Units: 3.0</th>
<th>Course Hours: 45.0</th>
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<tr>
<td>Prerequisite(s):</td>
<td>CWEB 100*</td>
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You will learn about the concepts of auditing, controls and security in an Information Technology (IT) environment. You will study the following topics: general internal controls and their application, security, governance, standards, guidelines and regulations. You will examine methods and procedures used to assess the risks and evaluate controls over information systems in an organization.

## IOT 100 Internet of Things Fundamentals

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<tr>
<th>Credit Units: 4.0</th>
<th>Course Hours: 60.0</th>
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<td>Prerequisite(s):</td>
<td>CWEB 100*</td>
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You will study the objects and connections that make up the Internet of Things (IoT). You will build sensors and actuator systems using the Arduino microcontroller. You will create programs in Python that provide Internet of Things functionality to the Raspberry Pi computer. You will design an Internet of Things system that can solve problems in manufacturing, healthcare, or energy systems.
IRRI 200 Irrigation
Credit Units: 2.0    Course Hours: 30.0
You will discuss the significant role irrigation plays in agriculture, focusing on soil characteristics, irrigation scheduling, drainage, and types of irrigation systems.

JOBR 100 Job Preparation
Credit Units: 2.0    Course Hours: 30.0
You will develop employability skills that allow you to work in the security field.

JOBR 120 Job Readiness
Credit Units: 1.0    Course Hours: 16.0
You will develop essential employability skills which will assist you in labour market research in the information technology sector, employment-related communications, and interviewing techniques. You will prepare documentation required for a successful job application and employment.

JOBS 101 Shop Management
Credit Units: 2.0    Course Hours: 30.0
You will study quality assurance, lean manufacturing and job planning in this introductory course. This will allow you to fully contribute to today’s competitive industry.

JOBS 125 Essential Job Skills
Credit Units: 1.0    Course Hours: 15.0
Equivalent Course(s): COMM 106, COMM 127, TCOM 102
You will develop essential job skills by preparing job search documents and practicing effective interpersonal communication skills for the workplace.

JOBS 290 Job Search
Credit Units: 2.0    Course Hours: 24.0
You will refine your job search skills. You will identify job search strategies, develop a personal inventory of skills and interview an employer to help determine industry expectations. The course content includes developing a resume and cover letter and preparing for and participating in a job practice interview.

LABS 120 Basic Electricity Lab
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s): ENGE 120*, MAT 110*
Equivalent Course(s): LABS 123
You will apply principles and theorems of electricity including current, voltage and resistance as well as verify Ohm’s and Kirchoff’s laws. You will apply measurement techniques to evaluate various circuits.

LABS 121 Water and Wastewater Laboratory Principles
Credit Units: 3.0    Course Hours: 45.0
Equivalent Course(s): LABS 121CE
You will review basic water chemistry. You will also describe laboratory equipment, laboratory safety, sampling techniques, preservation, storage and shipping of samples.

LABS 122 Water and Wastewater Laboratory Principles 2
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): LABS 121
You will gain hands-on laboratory testing experience for typical testing required for quality and operational monitoring of water and wastewater treatment, water distribution and collection systems.

LABS 123 Basic Electricity Lab
Credit Units: 6.0    Course Hours: 96.0
Corequisite(s): ENGE 121
Equivalent Course(s): LABS 120
You will become familiar with illustrating and verifying the theoretical concepts covered in the lectures in ENGE 121 (Basic Electricity). You will perform measurements typical of all technologies in the electrical stream.

LABS 200 Electrical Machines Lab 1 (DC Machines)
Credit Units: 3.0    Course Hours: 48.0
Prerequisite(s): ENGE 121, LABS 123, MAT 110
Corequisite(s): ENGE 201
You will examine magnetic circuits and conduct tests on various types of DC motors and generators. These exercises will help you learn how DC machines operate and understand their underlying principles and characteristics. You will analyze the characteristics of DC machines using computer simulation software.
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
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<tbody>
<tr>
<td>LABS 201</td>
<td>Electrical Machines 3 Lab (AC Machines)</td>
<td>2.0</td>
<td>32.0</td>
<td>ENGE 201, LABS 200, ENGE 220, LABS 221, MAT 112</td>
<td>ENGE 202</td>
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<td>You will examine induction and synchronous</td>
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<td>motors and AC generators. Lab exercises will</td>
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<td>help you perform detailed analysis of</td>
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<td>paralleling alternators under varying load and</td>
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<td>operating conditions. You will also use</td>
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<td>computer simulation software to study</td>
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<td></td>
<td>the characteristics of AC machines.</td>
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<td>LABS 202</td>
<td>Environmental Laboratory Analysis</td>
<td>3.0</td>
<td>45.0</td>
<td>MAT 110</td>
<td>CHEM 200</td>
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<td>You will focus on learning the lab skills</td>
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<td>required to obtain water quality</td>
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<td>measurements. You will apply these skills</td>
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<td>to proper sampling protocol and laboratory</td>
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<td>analysis, with an emphasis on interpreting</td>
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<td>the laboratory results and applying them to</td>
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<td>applicable federal and provincial regulations</td>
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<td>and objectives.</td>
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<td>LABS 203</td>
<td>Water/Wastewater Lab Analysis</td>
<td>4.0</td>
<td>60.0</td>
<td>MAT 101</td>
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<td>quality measurements. You will gain an</td>
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<td>understanding of what is involved in</td>
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<td>obtaining analytical results and comparing</td>
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<td>those results to the regulations.</td>
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<td>LABS 204</td>
<td>AC Circuits Lab</td>
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<td>48.0</td>
<td>ENGE 121, LABS 123, MAT 110</td>
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<td>You will prepare lab reports in an industry-</td>
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<td>standard format.</td>
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<td>LABS 222</td>
<td>Semi-Conductor Electronics Lab</td>
<td>3.0</td>
<td>48.0</td>
<td>LABS 123</td>
<td>ELTR 221</td>
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<td>working with electronic circuits commonly</td>
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<td>found in electronic equipment. You will</td>
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<td>conduct experiments on semiconductor circuits</td>
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<td>such as amplifiers.</td>
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<td>LABS 224</td>
<td>Industrial Electronics Lab</td>
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<td>LABS 222</td>
<td>ELTR 223</td>
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<td>electronic circuits commonly found in</td>
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<td>industrial control equipment as referred to in</td>
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<td>ELTR 223 (Industrial Electronics). You will</td>
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<td>conduct experiments with power amplifiers,</td>
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<td>operational amplifiers and integrated circuit</td>
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<td>applications.</td>
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<td>LABS 226</td>
<td>Industrial Electronics Lab</td>
<td>3.0</td>
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<td>LABS 224</td>
<td>ELTR 228</td>
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<td>study power field-effect transistors (FETs),</td>
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<td>silicon-controlled rectifiers (SCR), optical</td>
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<td>coupling and phase control. You will also</td>
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<td>design a variable speed drive (VSD) project.</td>
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<td>LABS 227</td>
<td>Industrial Electronics Lab</td>
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<td>LABS 224</td>
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<td>study power field-effect transistors (FETs),</td>
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<td>silicon-controlled rectifiers (SCR), optical</td>
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<td>coupling and phase control. You will also</td>
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<td>design a variable speed drive (VSD) project.</td>
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<td>LABS 230</td>
<td>Industrial Controls Lab</td>
<td>3.0</td>
<td>48.0</td>
<td>LABS 222</td>
<td>CNTR 230</td>
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<td>You will examine the magnetic control of DC</td>
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<td>and AC motors including the functions,</td>
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<td>requirements and components of control systems</td>
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<td>You will apply the theory and skills you</td>
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<td>learned in CNTR 230 (Industrial Controls).</td>
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LABS 232 Relaying and Protection Lab
Credit Units: 3.0  Course Hours: 48.0
Prerequisite(s): COAP 232, ELTR 226, DSGN 225
Corequisite(s): ENGE 232
You will study the methods of setting up, operating and demonstrating the lab equipment to protect electrical transmission and distribution systems and transformers. You will explore the testing of mechanical and computerized relays, implementing basic relaying practices and requirements and interrupting devices.

LABS 246 SCADA Systems Lab
Credit Units: 3.0  Course Hours: 48.0
Prerequisite(s): DGTL 221
Corequisite(s): COMP 246
You will create a complete Supervisory Control And Data Acquisition (SCADA) Human Machine Interface application, building on the skills you developed in COMP 246 (SCADA Systems).

LABT 150 Analytical Instrumentation 1
Credit Units: 2.0  Course Hours: 30.0
Corequisite(s): LABT 151, MATH 192
You will begin your studies on analytical instrumentation by learning about components and terminology common to most instruments. Your first introduction to the functioning of instrumentation will include pH meters, ion selective electrodes, and basic spectrometers. You will learn about measures of quality in measurements and calibration of instrumentation.

LABT 151 Analytical Instrumentation 1 Lab
Credit Units: 3.0  Course Hours: 45.0
Corequisite(s): LABT 150, MATH 192
You will be introduced to the operation of instrumentation for chemical analysis. You will learn about calibration of instrumentation for quantitative measurements using physical measurements of natural phenomena. You will be provided instruction in the operating techniques of pH meters and basic spectrophotometers.

LABT 152 Analytical Instrumentation 2
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): LABT 150
Corequisite(s): LABT 153
You will be introduced to both physical and chemical separation methods. You will learn the basic theory behind chromatographic separations. Your studies will focus on instrumentation, column theory and the application of these techniques to various separation problems in gas and liquid chromatography.

LABT 153 Analytical Instrumentation 2 Lab
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): LABT 150
Corequisite(s): LABT 152
You will be instructed on how to operate both gas chromatographs and liquid chromatographs in the laboratory. You will develop methods to separate mixtures using the chromatographic instruments, and to adjust instrumental parameters to improve the efficiency and the resolution of the separations.

LABT 154 Sampling Techniques
Credit Units: 2.0  Course Hours: 30.0
You will receive the theoretical and practical background needed to understand the steps required to obtain a representative sample for chemical analysis on water, air and soil samples. You will understand the principles of sampling techniques and the importance of having a sampling plan.

LABT 182 Laboratory Preparation Techniques 1
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): MICR 282*, MICR 283*
You will learn to perform functions normally expected of a laboratory technician by preparing material for first and second year laboratories; including chemical solutions, stains, reagents and various types of culture media. You will be introduced to the operation and care of laboratory equipment, inventory procedures and ordering supplies along with general housekeeping duties required in a laboratory.
LABT 250 Analytical Instrumentation 3
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): LABC 150
Corequisite(s): LABC 251
You will be introduced to a number of advanced techniques utilized in atomic spectroscopy. You will learn the theory and components of atomic absorption spectrophotometry (AAS), atomic emission spectroscopy (AES), inductively coupled plasma optical emission spectroscopy (ICP-OES) and x-ray fluorescence spectroscopy (XRF). You will apply graphical and computer software tools to create calibration curves for data obtained from instrumental analyses.

LABT 251 Analytical Instrumentation 3 Lab
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): LABC 150
Corequisite(s): LABC 250
You will learn the software and operation of atomic absorption spectroscopy (AAS), atomic emission spectroscopy (AES), inductive coupled plasma optical emission spectroscopy (ICP-OES), and x-ray fluorescence spectroscopy (XRF). You will explore the effects of operational parameters and instrument conditions on data quality. You will prepare and analyze various real world samples on various spectroscopic techniques.

LABT 252 Analytical Instrumentation 4
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): LABC 150, CHEM 152
Corequisite(s): LABC 253
You will become familiar with the instrumentation associated with elucidating molecular structures. You will learn the theory and instrumental components used in a scanning ultraviolet/visible (UV-VIS) spectrometer, a Fourier transform infra-red (FTIR) spectrometer, a mass spectrometer (MS) and a nuclear magnetic resonance (NMR) spectrometer.

LABT 253 Analytical Instrumentation 4 Lab
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): LABC 150, CHEM 152
Corequisite(s): LABC 252
You will be introduced to several techniques used in molecular spectroscopy. You will learn the operation of the scanning ultraviolet/visible (UV-VIS) spectrometer, the Fourier transform infra-red (FTIR) spectrometer, the mass spectrometer (MS) and the nuclear magnetic resonance (NMR) spectrometer. Your laboratory work will provide you with the opportunity to investigate the operation and preparation of samples for each of these instrumental methods and to use the data obtained from the instruments for the elucidation of chemical structures.

LABT 283 Laboratory Preparation Techniques 2
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): LABC 182, MICR 282, MICR 283, MICR 284*, MICR 285*
You will continue applying information and developing skills learned in Laboratory Preparation Techniques 1 (LABT 182). You will prepare materials for first and second year laboratories and apply quality control and assurance to the documentation of laboratory activities. You will demonstrate basic supervisory and leadership skills, operate and maintain laboratory equipment, assist with inventory and perform general laboratory duties.

LABT 284 Analytical Instrumentation 3
Credit Units: 5.0    Course Hours: 80.0
You will be introduced to a number of advanced techniques utilized in atomic spectroscopy. You will learn the theory and operation of atomic absorption spectrophotometry (AAS), arc and spark atomic emission spectroscopy, inductively coupled plasma optical emission spectroscopy (ICP-OES) and x-ray fluorescence spectroscopy (XRF). You will apply graphical and computer software tools to create calibration curves for data obtained from instrumental analyses. The course content includes the necessary chemical background and the construction and mode of operation of the instruments used in these areas. You will be introduced to basic operating techniques and to explore the effects of operational parameters on data quality and looking at several applications.
LABT 285 Analytical Instrumentation 4
Credit Units: 5.0    Course Hours: 80.0
You will be introduced to several techniques used in molecular spectroscopy. You will become familiar with the instrumental techniques associated with elucidating molecular structures. You will learn the theory and operation of the scanning ultraviolet/visible (UV-VIS) spectrometer, the Fourier transform infra-red (FTIR) spectrometer, the mass spectrometer (MS) and the nuclear magnetic resonance (NMR) spectrometer. Your laboratory work will provide you with the opportunity to investigate the operating techniques of each of these instrumental methods and obtain qualitative information from each instrument.

LABT 288 Analytical Instrumentation 1
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): CHEM 173, CHEM 174, STAT 181, BIOC 281
Corequisite(s): LABT 289
You will be introduced to spectrophotometry and electroanalysis as used in the bioscience field. You will study the chemical background, construction of and mode of operation of these instruments.

LABT 289 Analytical Instrumentation 1 Lab
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): CHEM 173, CHEM 174, STAT 181, BIOC 281
Corequisite(s): LABT 288
You will apply basic maintenance and operating techniques for using ion-selective electrodes and spectrophotometers. You will use analytical instruments to analyze samples and interpret analytic data. You will prepare analytical solutions and use statistics to evaluate data.

LABT 290 Plant Tissue Culture Lab
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): PYSL 180, PYSL 181, MICR 282*, MICR 283*
You will examine plant tissue culture techniques. You will perform sterilization techniques, prepare plant tissue culture media, and produce plant cultures.

LABT 291 Animal Cell Culture Lab
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): ANAT 183, ANAT 184, MICR 282*, MICR 283*
You will prepare animal cell culture media and materials. You will learn the safe handling and disposal of cell culture materials. You will learn to maintain and subculture cell lines, prepare a primary cell culture and perform cell transfection.

LABT 292 Analytical Instrumentation 2
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): LABT 288, LABT 289
Corequisite(s): LABT 293
You will study gas chromatography (GC), liquid chromatography (LC), and capillary electrophoresis (CE). You will be introduced to the principles of analytical separation using these instruments and the unique features of having a mass spectrometer (MS) detector. You will examine the applications of the instruments to the field of biotechnology.

LABT 293 Analytical Instrumentation 2 Lab
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): LABT 288, LABT 289
Corequisite(s): LABT 292
You will build on the knowledge learned in Analytical Instrumentation 1. You will evaluate, select, and test instrumentation and equipment appropriate to the chemical analysis.

LABT 297 Laboratory Preparation Techniques in Chemistry
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): PYSL 180, PYSL 181, MICR 282*, MICR 283*
You will follow written and verbal instructions in the preparation of laboratory materials. You will prepare chemical solutions, and dilute acids and bases for the program laboratories. You will be involved in properly caring for and maintaining glassware and equipment, inventory procedures and ordering supplies. You will also perform general housekeeping duties required in a laboratory. You will keep accurate records and display effective teamwork skills.
### LAW 100 Law and Ethics
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s): LAW 100CE, SFTY 191
Your studies will focus on an overview of occupational health and safety systems. You will examine societal and organizational aspects, core principles, essential elements, and a variety of legislation.

### LAW 101 Law for Emergency Communication
Credit Units: 2.0  Course Hours: 30.0
You will learn about the legal system in Canada and focus on specific legislation at it applies to the field of Emergency Communication. Your studies will include the creation of laws and how they are applied at the federal, provincial and municipal level, provincial acts and statutes that impact Emergency Services, and the concepts of liability.

### LAW 162 Criminal Law
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): LAW 162CE
You will examine the Criminal Code and its relationship to selected criminal offenses and cases. You will also examine elements of a crime, pre-trial criminal procedures and the significance of the Charter of Rights and Freedoms as it impacts on criminal law.

### LAW 163 Law Enforcement Reporting Procedures
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): LAW 163CE
You will develop observational skills to collect information to write a variety of law enforcement reports. Based on these acquired skills, you will use a notebook to record detailed information which will then be utilized to write police reports. You will also link information in these reports to the delivery of testimony in court.

### LAW 164 Reporting Procedures for Security Officers
Credit Units: 2.0  Course Hours: 30.0
You will develop observational skills to collect the information necessary for a variety of law enforcement reports. Based on these acquired skills, you will write reports. You will also link information in these reports to the delivery of testimony in court.

### LAW 165 Legal Acts, Statutes and Regulations
Credit Units: 2.0  Course Hours: 30.0
You will apply various legal acts, statutes and regulations that are common in court proceedings.

### LAW 220 Commercial Law
Credit Units: 4.0  Course Hours: 64.0
Equivalent Course(s): ACP 170, LAW 220CE, LAW 240
Your studies will focus on the field of commercial law. You will examine in detail the concepts of contract law and how these concepts are influenced by various legislative acts and common law. Other legal concepts in your studies will focus on: torts, agency, various forms of business organizations, the sale of goods, employment, bailments, insurance, real and intellectual property, and secured transactions.

### LAW 300 Construction Law
Credit Units: 3.0  Course Hours: 45.0
You will analyze the legal basis of construction management including Tort (liability) and Contracts.

### LAW 301 Law and Ethics
Credit Units: 3.0  Course Hours: 45.0
Your studies will focus on the field of business law and its related concepts of ethics, privacy, and confidentiality. You will examine the concepts of contract law and apply them in business contexts. You will also learn and apply legislation related to torts, agency, various forms of business organization, and the sale of goods. Particular emphasis will be placed on applying ethical decision-making within business contexts, as well as on the essential nature of privacy and confidentiality in business relationships.

### LAW 600 Commercial Law
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): MGMT 131
Your studies will focus on the field of business law and its related concepts of ethics, privacy, and confidentiality. You will examine the concepts of contract law and apply them in business contexts. You will also learn and apply legislation related to torts, agency, various forms of business organization, and the sale of goods. Particular emphasis will be placed on applying ethical decision-making within business contexts, as well as on the essential nature of privacy and confidentiality in business relationships.
## LEAD 010 Leadership and Coaching Development
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s):  LEAD 010CE
You will learn leadership and coaching competencies required by today’s managers and supervisors. You will discover your leadership strengths and practice effective coaching techniques, communication, decision-making, and conflict resolution strategies. You will develop your Leadership Action Plan.

## LEAD 100 Leadership, Professionalism and Ethics
Credit Units: 2.0  Course Hours: 25.0
Your studies will focus on leadership and professionalism in Emergency Medical Services. You will study biomedical ethics, law and social constructs relating to the provision of healthcare in Canada.

## LEAD 115 Leadership Principles
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  LEAD 115CE
You will focus on the goals, functions and roles of leadership. You will learn what leadership is and what it takes to become a successful leader. You will examine different types of leaders, the ways that they are effective, and consider situations where one leadership style may be better than another.

## LEAD 116 Coaching and Teambuilding for Leaders
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  LEAD 116CE, SFCP 605
You will examine what a team is and how to become part of a functioning team and even a high performing team at times.

## LEAD 180 Leadership and Group Dynamics
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  LEAD 180CE
You will be introduced to the concepts of leadership and group dynamics. You will be introduced to the theory of leadership, ethics and professionalism. The course will focus on group processes and their practical application including the collaborative process, conducting meetings, and leading discussion groups and decision making.

## LEAD 200 Applied Leadership
Credit Units: 3.0  Course Hours: 45.0
Your studies will further develop your group processing skills and will provide you with the opportunity to discuss the importance of having a working leadership philosophy. You will focus on the problem solving process, controversy and conflict and managing change.

## LEAD 201 Leadership in Nursing
Credit Units: 3.0  Course Hours: 40.0
Equivalent Course(s):  LEAD 201CE
You will enhance your leadership skills. You will study the changing roles in nursing, the professional concepts of leadership and management, and the significance of communication and conflict resolution to leadership and management. You will study how ethical and legal issues influence nursing; and how power and motivation relate to leadership and management. You will be able to demonstrate the basic skills necessary to be an effective team manager.

## LEAD 202 Leadership and Team Management in Occupational Health Nursing
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  NRSG 287
Equivalent Course(s):  LEAD 202CE
You will develop the knowledge and skills to effectively manage a health services unit, lead a team, and participate in team work. You will be prepared to provide strong leadership and communication skills emphasizing planning, supervision, problem solving, team work, and team effectiveness.

## LEAD 300 Leadership Development
Credit Units: 3.0  Course Hours: 45.0
Your studies will focus on principles of leadership, motivation, management and self-development. You will develop leadership and change management strategies.

## LEAD 301 Innovation and Leadership
Credit Units: 3.0  Course Hours: 45.0
You will gain a strategic perspective on the emerging role of innovation. You will explore effective methods and practices to promote innovation. The role of the leaders and stakeholders, as well as change management and communication in the innovation and decision-making process will be examined.
# Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
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<tbody>
<tr>
<td>LEAD 302</td>
<td>Leadership Fundamentals</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td>LEAD 303</td>
<td>Contemporary Leadership</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td>LEAD 400</td>
<td>Effective Leadership</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td>LEAD 600</td>
<td>Leadership Development</td>
<td>3.0</td>
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<tr>
<td>LEGL 141</td>
<td>Policing in Canada</td>
<td>2.0</td>
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<tr>
<td>LEGL 142</td>
<td>Ethics in Policing Careers</td>
<td>3.0</td>
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<tr>
<td>LEGL 143</td>
<td>Preparation for Police Assessments</td>
<td>3.0</td>
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<tr>
<td>LEGL 144</td>
<td>Criminal Investigation</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>LEGL 161</td>
<td>Restorative Justice</td>
<td>2.0</td>
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</tr>
<tr>
<td>LIB 182</td>
<td>Borrower and Outreach Services</td>
<td>3.0</td>
<td>45.0</td>
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</tbody>
</table>

**LEAD 302 Leadership Fundamentals**
Credit Units: 3.0  Course Hours: 45.0
You will develop the knowledge, skills and competencies to work with and manage people in the workplace, community, and volunteer experiences. You will learn strategies for building and maintaining trust, developing successful interpersonal interactions, and addressing difficult situations. You will develop useful techniques for creating learning conversations used in coaching situations.

**LEAD 303 Contemporary Leadership**
Credit Units: 3.0  Course Hours: 45.0
You will develop the essential knowledge, skills, and competencies to apply leadership concepts to all aspects of your paid and volunteer work. Through the tool of narrative, you will explore your own leadership style and compare your style with the characteristics of sound leadership practice. You will compare and contrast leadership and management roles and functions and their connections to organizational and personal values.

**LEAD 400 Effective Leadership**
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): LEAD 303
You will develop leadership skills which are appropriate for diverse organizational community contexts. The course content emphasizes the interactions between self, systems and the organizational context. You will explore the types of actions based on theoretical approaches and conceptual understandings, which leaders take to make positive differences. You will develop your vision of leadership within a diverse organization and determine how you will apply your leadership vision in a variety of organizational and community contexts.

**LEAD 600 Leadership Development**
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): MGMT 124
You will examine leadership theory and practice. Through various sources, you will study personal and professional leadership strategies, including leadership approaches, theories, and principles, communication, employee motivation and management, and apply these theories to your personal and professional life.

**LEGL 141 Policing in Canada**
Credit Units: 2.0  Course Hours: 30.0
You will examine the origins and philosophical development of policing in Canada from its inception to current policing practices. You will learn about the structure of police organizations, policing models, and strategies associated with current policing methods.

**LEGL 142 Ethics in Policing Careers**
Credit Units: 3.0  Course Hours: 40.0
Equivalent Course(s): LEGL 142CE
You will study the process of developing values and how they relate to the development of morals. You will examine the concepts embodied in values clarification and moral dilemmas, as they apply to the field of policing.

**LEGL 143 Preparation for Police Assessments**
Credit Units: 3.0  Course Hours: 45.0
You will be provided with an opportunity to develop practical strategies to improve cognitive and academic skill testing to enter the police field. You will practice writing simulated exams and participate in mock interviews in order to develop skills in this area. You will also develop a resume and a portfolio specific for entry into the field of policing.

**LEGL 144 Criminal Investigation**
Credit Units: 2.0  Course Hours: 30.0
You will learn about the processes involved in conducting a criminal investigation. You will have an opportunity to develop skills such as note taking, investigative photography, incident scene drawing, and search techniques.

**LEGL 161 Restorative Justice**
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): LEGL 141
You will examine the concept of restorative justice and explore the current initiatives provincially, nationally and internationally.

**LIB 182 Borrower and Outreach Services**
Credit Units: 3.0  Course Hours: 45.0
You will examine the image created by staff and facilities in various types of libraries. You will review and evaluate circulation processes, routines and policies. You will examine print and online reserve collections in academic and school libraries. Theory and practice will help you learn how to handle interlibrary loans as a borrower and as a lender. You will also examine difficult situations and evaluate outreach services.
**LIB 191 Readers’ Services**  
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): LIB 191CE  
Focusing on school and public libraries, you will examine the roles and functions of readers’ advisors. You will study fiction reference sources, readers’ advisory interviews, genre types and representative examples, and a variety of fiction promotion techniques.

**LIB 192 Introduction to Information Resources**  
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): LIB 192CE  
You will be introduced to reference service and general information resources: including dictionaries, encyclopedias, ready reference and indexes. You will utilize the information search process to search these print and non-print resources.

**LIB 193 Current Trends in Libraries**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): ORTN 190  
You will investigate and discuss the impact of current trends on the delivery of information and services within libraries.

**LIB 194 Introduction to Archives and Records Management**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): ORTN 190  
You will be introduced to the field of archives and records management, including an overview of archival principles. You will discuss the functions of archival and records management programs and how they inter-relate. You will receive a broad orientation to work in archival and records management systems.

**LIB 196 Introduction to Cataloguing**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): ORTN 190*  
You will look at the functions of technical services in libraries. You will describe the purpose and use of library catalogues and create original and/or derived records for an automated library catalogue using Resource Description and Access (RDA) and Machine Readable Cataloguing (MARC).

**LIB 197 General Information Resources**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): LIB 192  
You will examine information resources in biography in library science and in the publishing trade. You will examine library and publishing trade bibliographies and evaluative guides to reference collections. You will use both print and electronic resources.

**LIB 199 Subject Cataloguing**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): LIB 196  
In your continuing study of the organization of library materials, you will assign Dewey Decimal classification numbers, Library of Congress subject headings, and Library of Congress classification numbers to library materials. You will construct records for monographs for an online catalogue with complete descriptive and subject cataloguing (original and/or derived).

**LIB 282 Storytelling for all Ages**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): ORTN 190  
You will examine the role storytelling has in the development of literacy skills and look at family literacy programs. You will prepare and present literature using a variety of methods. You will plan, prepare and present a story time program applicable for your chosen age group.

**LIB 289 Digital Technologies**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): ORTN 190, COMP 170  
Equivalent Course(s): COAP 292  
You will evaluate social networking strategies and application used by various types of libraries. You will explore current issues in information technology applications in libraries. You will explore various assistive technologies and alternate formats available to patrons.

**LIB 290 Cataloguing: Serials and Multimedia Resources**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): LIB 199  
Building on your knowledge of traditional descriptive and subject cataloguing, you will create bibliographic records for non-book materials such as DVDs, e-books, video games, compact discs, pictures, and print/electronic serials.
LIB 291 Information Resources: Social Sciences  
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): LIB 197  
You will evaluate information sources in the social sciences including business, commerce and law, education, health sciences, government reference sources, sport and recreation, history and geography. You will use both print and electronic resources.

LIB 292 Acquisitions and Collections Development  
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): ORTN 190*  
You will examine collection development policies and collection management functions. You will examine all parts of the acquisitions process. Topics you will study include selection, ordering, receiving, weeding, and mending of materials.

LIB 293 Information Resources: Humanities and Science and Technology  
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): LIB 291  
You will evaluate information sources in the humanities and in science and technology including religion, mythology and philosophy, fine and performing arts, literature, Indigenous topics and natural sciences and technology.

LIT 182 Children's Materials and Services  
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s): LIT 182CE  
You will discuss the history of children's literature and become familiar with representative works of contemporary children's material in fiction and non fiction in print and non print format. You will examine the criteria used to select children's material for school and public libraries. Promotion of children's material will be discussed.

LIT 290 Canadian Literature Survey 1  
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): ENGL 101  
You will study representative works from each of the four major genres, poetry, drama, short fiction and the novel, with examples coming from Canadian literature in English. Specifically, you will examine works written in the Canadian Colonial and National periods. You will also examine works by First Nations authors. You will demonstrate knowledge of critical vocabulary, critically discussing and evaluating works from each genre and period.

LIT 190 Literature and Composition 1  
Credit Units: 3.0  Course Hours: 48.0  
Equivalent Course(s): LIT 190CE  
You will examine representative works from each of the four major genres of poetry, short fiction, the novel and drama with examples coming from non-Canadian (British, Commonwealth, European in translation and American) literature in English. You will become familiar with critical vocabulary to discuss and evaluate works from each genre. You will receive instruction and practice in effective writing. Effective organization, college-level research skills and the effective use of language, sentences and paragraphs in creating clear writing will be emphasized.

LIT 191 Literature and Composition 2  
Credit Units: 3.0  Course Hours: 48.0  
Prerequisite(s): LIT 190  
Equivalent Course(s): LIT 191CE, LIT 280  
Building on the skills gained in Literature and Composition 1, you will continue to examine representative works in English poetry, short fiction, novels and drama, categorizing them into the major periods of world literature. You will construct literary analysis using appropriate terms and concepts, with emphasis on well-thought-out arguments.

LIT 291 Canadian Literature Survey 2  
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): LIT 290  
Building on your knowledge and skills from Canadian Literature Survey 1, you will employ critical vocabulary in order to analyze representative works from the genres of poetry, drama, short fiction and the novel in Canadian literature in English. Specifically, you will examine works written in the Canadian Modern and Contemporary periods. You will also examine works by Saskatchewan writers. You will demonstrate advanced research and literary analysis skills.
## Course Descriptions

### MACH 100 Computer Numerical Control
Credit Units: 5.0  Course Hours: 78.0  
You will learn the principles and practices for programming and operating Computer Numerical Control (CNC) machine tools. You will have the opportunity to write and run a CNC program for a lathe and a milling machine.

### MACH 101 Drilling Machine Operations
Credit Units: 4.0  Course Hours: 60.0  
You will learn how to set up, operate and maintain various drilling machines. The course content includes drilling, reaming, tapping and boring operations.

### MACH 102 Grinding Operations
Credit Units: 4.0  Course Hours: 55.0  
You will learn how to set up, operate, and maintain various grinding machines. The course content includes selecting, mounting and balancing grinding wheels, feed rates and speeds.

### MACH 103 Lathe Operations
Credit Units: 15.0  Course Hours: 225.0  
You will learn how to set up, operate, and maintain a lathe. The course content includes turning, boring, drilling, taper turning, internal/external threading operations, feed rates and speeds.

### MACH 104 Milling Machine Operations
Credit Units: 11.0  Course Hours: 160.0  
You will learn how to set up, operate and maintain various milling machines and attachments. The course content includes selecting tools, holders, feed rates and speeds for various cutter and material applications.

### MACH 105 Sawing Operations
Credit Units: 1.0  Course Hours: 15.0  
You will learn how to set up, operate, and maintain various cut-off machines. The course content includes selecting cutting blades and calculating cutting speeds.

### MACH 106 Machine Shop
Credit Units: 2.0  Course Hours: 30.0  
You will learn how to use basic hand and power tools. Your studies will include layout, threading, precision measurement and operating oxy-acetylene equipment.

### MACH 150 Milling Machine Operations
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): BESK 170, MEAS 161  
Equivalent Course(s): MACH 104  
You will learn how to set up, operate and maintain various milling machines and attachments. Your studies will focus on selecting tools, holders, feed rates and speeds for various cutter and material applications.

### MACH 151 Lathe Operations
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): BESK 170, MEAS 161  
Equivalent Course(s): MACH 103  
You will learn how to set up and operate manual lathes. You will practice turning, hole making, boring, grooving, internal and external threading. You will also study how to optimize cutting times with carbide tooling.

### MACH 152 Computer Numerical Control 1
Credit Units: 5.0  Course Hours: 75.0  
Prerequisite(s): MACH 155  
You will learn the practices and principles for programming and operating computer numerical control (CNC) machine tools. You will write and run a CNC program for a lathe and mill.

### MACH 153 Computer Numerical Control 2
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): MACH 152  
You will learn how to set up and program a computer numerical control (CNC) machining center to perform 4th-axis machining. You will learn how to simulate and machine a part.

### MACH 154 Computer Numerical Control 3
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): MACH 153  
You will learn how to set up a computer numerical control (CNC) machine to operate live tooling.

### MACH 155 Drilling Machine Operations
Credit Units: 3.0  Course Hours: 45.0  
You will learn how to set up, operate and maintain various drilling machines. The course content includes drilling, reaming, tapping and boring operations.
Course Descriptions

MACH 191 Machine Shop Technology
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  MACH 120
You will gain an understanding of machine shop principles and practices. This course will serve as a foundation for further studies in manufacturing. In addition to lectures and demonstrations, you will receive extensive hands-on experience.

MAIN 104 Structural Components Theory
Credit Units: 2.0  Course Hours: 30.0
You will cover preventative maintenance programs on both highway and off road equipment. Hoisting and rigging techniques will be discussed. On highway power unit frame and suspension systems as well as docking and coupling systems will be covered. ROPS and FOPS safety systems will be covered as they pertain to heavy equipment.

MAIN 105 Structural Components Shop
Credit Units: 2.0  Course Hours: 30.0
You will perform preventive maintenance procedures on both off road and on highway equipment. Hoisting and rigging procedures will be implemented. Various hitching and docking systems will be analyzed. Highway tractor frames and suspensions will be inspected. Operator protection systems on heavy equipment will be inspected and repaired.

MAIN 106 Tracks and Undercarriage Theory
Credit Units: 2.0  Course Hours: 30.0
You will study various types of final drive systems used on construction equipment. Tracked equipment inspection and maintenance procedures will be discussed.

MAIN 107 Tracks and Undercarriage Shop
Credit Units: 2.0  Course Hours: 30.0
You will perform inspections on various final drive systems. Undercarriage components will be evaluated and repairs performed.

MAIN 108 Vehicle Inspection, Apprenticeship and Mentoring
Credit Units: 2.0  Course Hours: 30.0
You will identify and perform periodic vehicle maintenance while following recommended maintenance schedules for vehicle fluids, steering, suspension, brakes, exhaust systems including the inspection of lights, tires, wiper/washers and leaks. You will discuss the apprenticeship and mentoring programs.

MAIN 109 Plant Maintenance 1
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  SAFE 104*
You will work with basic tools and fasteners while maintaining a safe workplace. Your studies will include discussing boiler fittings, piping and valves as well as welding terms and inspections. You will practice skills used in plant maintenance.

MAIN 110 Plant Maintenance 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  ENGP 105*
You will study various types of air compressors and pumps. You will practice your operations and maintenance skills by using lubrication equipment. As well, you will practice skills used in plant maintenance.

MANU 170 Manufacturing 1
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  MACH 152*
You will be introduced to metal and plastic manufacturing. Your studies will conclude an analysis of quality control standards. You will compare manufacturing processes and fabrication techniques as well as mold design and casting processes.

MANU 171 Manufacturing 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  MANU 170
Your studies will focus on robotic applications and compatibility in manufacturing processes. You will develop a robotic software system and tooling. You will design and fabricate manufacturing jigs and fixtures.

MANU 280 Production Management
Credit Units: 2.0  Course Hours: 30.0
You will learn the concepts involved in growing a manufacturing-based company from a small business to a large operation. You will learn about facility analysis, ordering processes and dealing with suppliers.

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Course Descriptions

**MANU 288 Fabrication**
Credit Units: 6.0  Course Hours: 85.0  
Prerequisite(s):  ENGM 180, CAD 181, MACH 191, DRFT 174, WELD 387, ENGM 191  
Corequisite(s):  ENGM 289  
You will gain an understanding of manufacturing systems and the diversity of fabrication processes. You will study and use engineering principles to solve fabrication problems. Your studies will concentrate on metal-working industries, and you will tour several manufacturing operations to gain a broad overview of different types of fabrication. You will gain an understanding of quality assurance principles and the ISO 9000 family of standards. You will learn to use statistics to analyze quality problems.

**MANU 290 Manufacturing**
Credit Units: 5.0  Course Hours: 80.0  
Prerequisite(s):  DRFT 291, ENG 192, ENGM 180, MACH 191, WELD 387  
You will gain an understanding of the merits and limitations of the manufacturing and fabrication industry. You will study the use of engineering principles to solve manufacturing and fabrication problems. Your studies will concentrate on the metal industry but you will tour several manufacturing operations to gain a broad view of the different types of manufacturing. You will gain an understanding of surface finishes and geometric dimensioning and tolerancing. You will also learn how to apply them to engineering drawings.

**MANU 291 Advanced Manufacturing**
Credit Units: 4.0  Course Hours: 56.0  
Prerequisite(s):  ELTR 287, WELD 387  
You will develop an understanding of flexible automation using robotics. You will discuss the technology, observe videotapes of several industrial applications and attend industry tours to observe robotic systems in industry. You will learn how to program an industrial robot to perform various tasks. To gain an overall understanding of robotics, you will investigate end-of-arm tooling, parts presentation and cost justification. You will receive an introduction to other related technology (including machine vision systems, industrial sensors, and data acquisition and control). You will integrate this knowledge into a design project where a fabricated metal part will be reverse engineered and taken from drawings to welded part. Your project will include part layout for laser cutting (where necessary), design and fabrication of jigs, robot programming and weld jobs.

**MANU 293 Quality Assurance and Manufacturing Management**
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s):  ENGM 289  
You will gain an understanding of manufacturing systems and the diversity of fabrication processes. You will study and use engineering principles to solve fabrication problems. Your studies will concentrate on metal-working industries, and you will tour several manufacturing operations to gain a broad overview of different types of fabrication. You will gain an understanding of quality assurance principles and the ISO 9000 family of standards. You will learn to use statistics to analyze quality problems.

**MAPS 101 Introduction to Mapping and Compassing**
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s):  MAPS 340  
Your studies will focus on mapping systems and compassing. You will interpret maps and develop skills in ground and map measurements. You will learn the basics of internet mapping software.

**MAPS 301 Cartography**
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s):  MAPS 101  
You will learn to apply cartographic principles of map design and produce a professional quality map with Geographic Information Systems (GIS) software.

**MAPS 302 Geographic Information Systems (GIS) and the Internet**
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s):  GIS 102, MAPS 301  
You will develop Geographic Information Systems (GIS) applications for the internet. You will practice your skills by developing an internet web page.

**MAT 100 Mathematics for Instrumentation Engineering Technology**
Credit Units: 4.0  Course Hours: 60.0  
You will gain an understanding of flexible automation using robotics. You will discuss the technology, observe videotapes of several industrial applications and attend industry tours to observe robotic systems in industry. You will learn how to program an industrial robot to perform various tasks. To gain an overall understanding of robotics, you will investigate end-of-arm tooling, parts presentation and cost justification. You will receive an introduction to other related technology (including machine vision systems, industrial sensors, and data acquisition and control). You will integrate this knowledge into a design project where a fabricated metal part will be reverse engineered and taken from drawings to welded part. Your project will include part layout for laser cutting (where necessary), design and fabrication of jigs, robot programming and weld jobs.
### MAT 101 Applied Technical Mathematics
Credit Units: 5.0  Course Hours: 75.0
Equivalent Course(s): MAT 100, MAT 110, MAT 120
You will gain a basic background in trigonometry and algebra that is needed to do problem solving in applied areas and to advance to a study of calculus. You will study measurement, computations, algebraic operations, simplifications and solutions, trigonometry, graphing, exponents and logarithms. This course is intended to meet your needs in the construction stream of engineering technologies.

### MAT 102 Vector Algebra
Credit Units: 3.0  Course Hours: 45.0
You will gain an understanding of vectors through worked examples in many different scenarios. The geometric features of vectors will be discussed in both two and three dimensions. The algebraic features of vectors will be discussed in any dimension and will be presented alongside many practical geomatics applications.

### MAT 103 Linear Algebra
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MAT 102, MAT 110
You will gain an understanding of linear algebra and how it applies to engineering technology. You will perform mathematical operations with matrices, study vectors and solve systems of linear equations with matrices, study eigenvalues and eigenvectors, and perform matrix factorizations.

### MAT 104 Technical Mathematics 1
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): MAT 124CE
You will solve technical problems using concepts of arithmetic, algebra, geometry, systems of linear and non-linear equations and radical equations.

### MAT 110 Mathematics for Engineering Technologies
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s): MAT 101, MAT 110CE
You will gain foundational knowledge of mathematical topics applicable to engineering technologies. You will study formula manipulations, factoring of algebraic expressions, geometry and trigonometry, exponents and logarithms, and functions and their graphs. This course is intended to build problem solving and critical thinking skills, and to prepare you for studies in calculus.

### MAT 111 Calculus for Engineering Technologies
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): MAT 110
Equivalent Course(s): MAT 246
You will gain knowledge of calculus topics applicable to engineering technologies. You will study derivatives, integrals and differential equations, and their applications. This course is intended to further build problem solving and critical thinking skills, and to demonstrate the importance of calculus in engineering practices.

### MAT 112 Differential Calculus for Engineering Technologies
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MAT 110
Equivalent Course(s): MAT 223, MAT 226
You will gain knowledge of differential calculus topics applicable to engineering technologies. You will study continuity, limits, algebraic and transcendental derivatives and their applications. This course is intended to build further problem solving and critical thinking skills, and to demonstrate the importance of calculus in engineering practices.

### MAT 124 Technical Mathematics 1
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): MAT 124CE
You will solve technical problems using concepts of arithmetic, algebra, geometry, systems of linear and non-linear equations and radical equations.

### MAT 200 Advanced Calculus and Statistical Analysis
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): MAT 235, STAT 201
You will gain knowledge of series, statistical analysis and differential equations as they apply to engineering technology. Your studies will include series convergence, series expansions and series calculus, advanced statistical and least-squares analysis and ordinary and partial differential equations.
# Course Descriptions

## MAT 201 Technical Mathematics and Integral Calculus for EDD Technology
Credit Units: 4.0   Course Hours: 60.0  
Prerequisite(s): MAT 226
You will build on your knowledge and skills developed in Technical Mathematics and Differential Calculus to become familiar with the basic definitions, fundamental concepts and uses of integral calculus as related to engineering design and drafting.

## MAT 210 Integral Calculus for Engineering Technologies
Credit Units: 3.0   Course Hours: 45.0  
Prerequisite(s): MAT 112  
Equivalent Course(s): MAT 231
You will gain knowledge of integral calculus topics applicable to engineering technologies. You will study algebraic and transcendental integrals, differential equations and their applications. This course is intended to build further problem solving and critical thinking skills, and to demonstrate the importance of calculus in engineering practices.

## MAT 211 Advanced Mathematics for Engineering Technologies
Credit Units: 3.0   Course Hours: 45.0  
Prerequisite(s): MAT 210  
Equivalent Course(s): MAT 237
You will gain knowledge of advanced mathematical topics applicable to engineering technologies. You will study series expansions, differential equations, and Laplace and Fourier transforms. This course is intended to further build problem solving and critical thinking skills, and to demonstrate the modelling of physical systems with differential equations.

## MAT 221 Differential Calculus for Instrumentation Engineering Technology
Credit Units: 4.0   Course Hours: 60.0  
Prerequisite(s): MAT 100  
Equivalent Course(s): MAT 246
You will study analytical geometry, derivatives of algebraic and transcendental functions, integrals of algebraic functions and areas under curves. The application of the principles and techniques of differential and integral calculus to relevant problems in the instrumentation engineering field will be emphasized.

## MAT 223 Calculus 1 for Electrical Engineering Technology
Credit Units: 5.0   Course Hours: 80.0  
Prerequisite(s): MAT 122
Your studies will focus on maximum-minimum problems, related rates, areas, mean and root mean square (RMS). This technical calculus course also includes the rules for differentiation and integration of algebraic and transcendental functions along with their inverses. You will become familiar with determinations, elementary electronic problem solving and other applications of calculus.

## MAT 226 Technical Mathematics and Differential Calculus
Credit Units: 5.0   Course Hours: 75.0  
Prerequisite(s): MAT 101 or (MAT 102, MAT 103)  
Equivalent Course(s): MAT 225
You will learn how to solve technical problems using basic algebraic skills and the differential calculus. You will become familiar with basic definitions and the fundamental concepts of mathematics and elementary derivatives.

## MAT 229 Integral Calculus for Instrumentation Engineering Technology
Credit Units: 3.0   Course Hours: 45.0  
Prerequisite(s): MAT 221
You will review the rules of the differentiation and integration of algebraic functions and then apply them to linear motion, areas, volumes, moments, work, fluid pressure, average value, arc length and surface area. You will study the integration of transcendental functions, techniques of integration and their applications in areas of interest to instrumentation engineering.

## MAT 230 Numerical Calculus and Statistical Methods
Credit Units: 3.0   Course Hours: 48.0  
Prerequisite(s): MAT 222
Your studies will focus on the implementation of mathematics application software to do numeric calculus, function serial expansion and evaluation, and statistical analysis with best-fit curve analysis.

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Course Descriptions

**MAT 231 Calculus 2 for Electrical Engineering Technology**
Credit Units: 3.0  Course Hours: 48.0  Prerequisite(s): MAT 223
Building on the graphical and numerical skills you developed in a previous calculus course, you will establish a working knowledge of the basic rules and methods rather than a theoretical understanding of derivations and proofs. You will study some simple applications that are relevant to electrical theory.

**MAT 232 Calculus 2 for Electronics Engineering Technology**
Credit Units: 3.0  Course Hours: 48.0  Prerequisite(s): MAT 223
You will gain an understanding of the basic meanings and mechanics of technical calculus (including multivariate differentiation and electrical problem solving using calculus). Using the Fourier series, your studies will focus on the fundamentals of harmonic analysis and the connection between t-domain and phasor domain analysis. You will also receive an introduction to differential equations as a model of electrical and mechanical systems problem solving.

**MAT 233 Statistics**
Credit Units: 3.0  Course Hours: 48.0  Prerequisite(s): MAT 120  Equivalent Course(s): MAT 236, STAT 201
Your studies will focus on the concepts and computations of statistics within the technical world in this technology statistics course. Statistical thinking and communicating will be emphasized. You will use mathematical methods and notations to gain a general understanding of statistical terminology, skills and methods. The course consists of three basic and building parts - an introduction to descriptive statistics (by organization and presentation techniques using tables and graphs), probability theory (presented as the link between descriptive and inferential statistics) and inferential statistics (by way of technical and business applications based on simple random sampling, confidence intervals, hypotheses testing and regression-correlation analysis).

**MAT 235 Multivariable Calculus**
Credit Units: 4.0  Course Hours: 60.0  Prerequisite(s): MAT 103, MAT 112
You will gain knowledge of multivariable calculus topics applicable to engineering technologies. You will study and apply partial differentiation and vector calculus in technical problems. You will integrate a variety of function types using advanced techniques, including multiple integration. This course is intended to build problem solving and critical thinking skills and to demonstrate the importance of calculus in engineering practices.

**MAT 237 Electrical Differential Equations and Transforms**
Credit Units: 3.0  Course Hours: 44.0  Prerequisite(s): MAT 231
You will study the solutions to first- and second-order differential equations by transformation methods with applications to physical electrical circuits.

**MAT 238 Electronics Differential Equations and Transforms**
Credit Units: 3.0  Course Hours: 42.0  Prerequisite(s): MAT 232
You will study the solutions to first and second order differential equations using transformation methods with applications to physical electrical circuits.

**MAT 240 Transforms and Numerical Simulation**
Credit Units: 2.0  Course Hours: 36.0  Prerequisite(s): MAT 230
Your studies will reveal differential equations (DEs) as models of physical (mostly electrical) systems. The solution of DEs will be done by transformation methods and numerical methods that use mathematics application software. You will do some digital signal processing (DSP) simulation using mathematics application software.

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## Course Descriptions

### MAT 246 Analytical Geometry and Calculus
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** MAT 101 or MAT 120  
- **Equivalent Course(s):** MAT 220, MAT 246CE  
You will study analytical geometry, graphical and numerical methods for understanding of the concepts and operations of technical calculus, and problem solving using derivatives. You will also receive an introduction to differential and integral calculus.

### MAT 247 DEs and Transforms for Instrumentation Engineering Technology
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** MAT 229  
You will investigate first-order and second-order differential equations as models for mechanical, electrical, thermal and fluid physical systems. You will learn how to formulate those models and solve them using Laplace transformation theory.

### MATE 100 Materials Selection
- **Credit Units:** 1.0  
- **Course Hours:** 16.0  
You will focus on identifying the mechanical properties of different materials and the effect they have on machinability. You will also learn how to identify, select and use various materials in machining processes covered.

### MATE 102 Masonry Materials
- **Credit Units:** 1.0  
- **Course Hours:** 15.0  
You will discuss the history and development of masonry materials. Their properties, characteristics, sizes and shapes will be discussed. You will also cover the classification and manufacture of various masonry units.

### MATE 103 Materials
- **Credit Units:** 1.0  
- **Course Hours:** 18.0  
You will study the theory needed to identify different types of products used in the construction process. You will also study the types of mechanical fasteners used.

### MATE 104 Introduction to Re-Bar
- **Credit Units:** 1.0  
- **Course Hours:** 10.0  
You will learn the properties of concrete, placing and testing procedures. You will learn basic wire ties, as well as rebar colour codes and sizes.

### MATE 126 Building Materials
- **Credit Units:** 1.0  
- **Course Hours:** 15.0  
You will learn to identify different types of wood and non-wood products used in the construction industry as well as various types of mechanical and non-mechanical fasteners and anchors.

### MATE 170 Manufacturing Materials
- **Credit Units:** 5.0  
- **Course Hours:** 75.0  
- **Prerequisite(s):** BESK 170, MATH 167  
You will learn how to select appropriate materials for various manufacturing processes. You will also learn the Sae-Aisi metal numbering systems for selecting alloys, steels and aluminum. You will identify ferrous and non-ferrous materials as well as non-metallic materials. You will perform heat treating processes and metal testing using various shop testing methods.

### MATE 183 Materials Handling
- **Credit Units:** 1.0  
- **Course Hours:** 20.0  
You will become familiar with power and manual lifting equipment. You will also learn about load storage and restraints.

### MATE 186 Materials Handling and Equipment
- **Credit Units:** 1.0  
- **Course Hours:** 16.0  
Your studies meet Occupational Health and Safety (OH&S) requirements for safety training required to operate mobile powered equipment. You will learn theory and practical operations on a variety of mobile powered equipment.

### MATE 190 Materials Handling and Equipment
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** MATE 190CE  
You will study typical practices and procedures for material movement in a warehouse or parts distribution facility. You will focus on design, space usage, equipment requirements, and the theory and practical operations on a variety of mobile powered equipment.

### MATH 104 Applied Mathematics
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** MATH 182, MATH 193  
You will solve practical problems using arithmetic, linear equations, geometry and right triangle trigonometry. You will manipulate and use some formulas related to your trade.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MATH 106</strong> Plumbing/Pipefitting Mathematics</td>
<td>2.0 Course Hours: 24.0</td>
<td></td>
<td></td>
<td>You will study math concepts commonly used in the Plumbing and Pipefitting trades. After reviewing basic mathematics, you will solve basic equations and ratio and proportion problems. You will calculate perimeter, area and volume of common shapes, and perform mass and capacity calculations in Imperial and SI measurement systems. Trade applications include using steel measuring tapes and calculating 45° offsets and mechanical advantage.</td>
</tr>
<tr>
<td><strong>MATH 107</strong> Trade Mathematics</td>
<td>2.0 Course Hours: 30.0</td>
<td></td>
<td></td>
<td>The course reviews basic mathematical concepts and introduces mathematical concepts that support applications in the Industrial Mechanics trade.</td>
</tr>
<tr>
<td><strong>MATH 112</strong> Trade Math</td>
<td>2.0 Course Hours: 24.0</td>
<td></td>
<td></td>
<td>You will study whole numbers, common fractions, decimal fractions, percentages, ratio, proportion, angular measure, length, area and volume (metric and Imperial) as applied to the bricklayer trade.</td>
</tr>
<tr>
<td><strong>MATH 114</strong> Mathematics</td>
<td>3.0 Course Hours: 45.0</td>
<td></td>
<td></td>
<td>Equivalent Course(s): MAT 120, MAT 122, MATH 384 You will develop the required background in algebra, geometry and trigonometry that is necessary to do basic calculations in applied areas to advance to a study of calculus. The course content includes algebraic operations, solution of equations, functions, graphing plane geometry, trigonometry and vectors. Problem solving will be emphasized throughout the course.</td>
</tr>
<tr>
<td><strong>MATH 115</strong> Calculus for Architectural Technologies</td>
<td>4.0 Course Hours: 60.0</td>
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<td></td>
<td>Equivalent Course(s): CALC 281, MAT 220, MAT 222, MAT 246 You will gain knowledge of calculus topics applicable to architectural technology. You will study limits, differentiation and its applications, graphing with derivatives, and integration and its applications. This course is intended to further build problem solving and critical thinking skills, and to demonstrate the importance of calculus in engineering practice.</td>
</tr>
<tr>
<td><strong>MATH 116</strong> Mathematics</td>
<td>2.0 Course Hours: 30.0</td>
<td></td>
<td></td>
<td>Equivalent Course(s): MAT 120, MAT 122 You will review the fundamentals of mathematics, algebra and trigonometry. Topics include fractions, decimals, percents, equations, ratio and proportion, metric, areas, volumes and basic trigonometry.</td>
</tr>
<tr>
<td><strong>MATH 117</strong> Industrial Mathematics</td>
<td>2.0 Course Hours: 30.0</td>
<td></td>
<td></td>
<td>You will study basic math operations involving whole numbers, common and decimal fractions, percents and average, as used in the trade. Also, you will perform imperial and metric conversions, calculate perimeter, area and volume of objects, and solve some basic problems.</td>
</tr>
<tr>
<td><strong>MATH 119</strong> Mathematics</td>
<td>2.0 Course Hours: 30.0</td>
<td></td>
<td></td>
<td>Equivalent Course(s): MATH 187 You will develop the background knowledge in basic mathematics, while focusing on applications within the mechanical trades.</td>
</tr>
<tr>
<td><strong>MATH 125</strong> Welding Mathematics</td>
<td>2.0 Course Hours: 30.0</td>
<td></td>
<td></td>
<td>Equivalent Course(s): MATH 106, MATH 130, MATH 170, MATH 299 You will learn math concepts commonly used in the Welding trade. After reviewing basic mathematics and basic equations, you will solve applied percent and proportion problems. You will perform Imperial and SI conversions, and calculate the perimeter, area and volume of many common shapes, as well as use Pythagorean theorem. Trade applications include using protractors and steel tapes as well as calculating stretchouts and economical layout of various plates.</td>
</tr>
<tr>
<td><strong>MATH 127</strong> Trade Math</td>
<td>2.0 Course Hours: 30.0</td>
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<td></td>
<td>You will learn how to use whole numbers, common and decimal fractions, percentages, ratio and proportions, angular measurements, length, area and volume measurements in the Imperial and metric system. You will also convert Imperial and metric measurements.</td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 130</td>
<td>Industrial Mathematics</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will review fractions, decimals and percentages. You will study basic algebra, ratio and proportion, linear measure, areas, volumes, capacities, interrelationships used in the metric and Imperial systems, wage and time calculation, and financial calculations.</td>
<td></td>
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</tr>
<tr>
<td>MATH 136</td>
<td>Trade Mathematics</td>
<td>3.0</td>
<td>48.0</td>
</tr>
<tr>
<td></td>
<td>You will study basic mathematical concepts including whole numbers, decimals, fractions, percents, ratio proportion, squares and roots. You will also study the International System of Units in calculations such as finding length, capacity, mass, area and volume.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 138</td>
<td>Applied Mathematics</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will develop the required background in algebra, geometry and trigonometry that is necessary to perform basic calculations in applied areas to advance to a study of calculus. Your studies will include algebraic operations, solution of equations, functions, graphing plane geometry, trigonometry, vectors as well as problem-solving strategies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 139</td>
<td>Business Mathematics</td>
<td>4.0</td>
<td>64.0</td>
</tr>
<tr>
<td></td>
<td>You will deal with business problems involving ratios, proportions and percent. You will study the mathematics of merchandizing by examining discounts and markups. You will deal with the concept of the time value of money and how it is applied to both simple and compound interest. You will study ordinary annuities and specifically how they relate to mortgages.</td>
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</tr>
<tr>
<td>MATH 140</td>
<td>Trade Math</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>You will study basic math operations involving whole numbers, common and decimal fractions, percentages, and ratios and proportions. You will also perform length, area and volume calculations, and conversions involving the Imperial and Metric systems of measurement.</td>
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</tr>
<tr>
<td>MATH 158</td>
<td>Mathematics</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will study mathematics that is directly related to applications in the telecommunications networking field. You will perform operations with signed numbers and solve and manipulate equations. You will use powers of ten, engineering notation, and computer number systems. You will learn the fundamentals of Boolean algebra, basic trigonometry with vectors and phasors, the sine wave, and exponents and logarithms.</td>
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</tr>
<tr>
<td>MATH 159</td>
<td>Trade Mathematics</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will learn whole numbers, common and decimal fractions, percentages, ratio and proportion, angular measurements, and length, area and volume measurements in the Imperial and Metric system. You will also learn to perform calculations as applied to the trade.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 165</td>
<td>Mathematics for Printers</td>
<td>2.0</td>
<td>24.0</td>
</tr>
<tr>
<td></td>
<td>You will acquire the basic mathematics skills required for entry level occupations in the graphics/print industry. Your studies will include basic mathematics, problem solving, and measurement systems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 167</td>
<td>Applied Mathematics 2</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will learn about functional notation; study the basics of plane geometry and trigonometry, and perform basic vector calculations.</td>
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<tr>
<td>MATH 168</td>
<td>Introductory Math for Health Sciences</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>You will review basic mathematical concepts that are needed in a clinical setting to solve drug dosage problems. You will use dimensional analysis as a method of converting units and of calculating dosages. You will learn when to use proportion versus dimensional analysis in clinical problems.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Course Descriptions

MATH 169 Trade Mathematics
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  MATH 169CE, MATH 187
You will learn mathematical concepts commonly used in your trade. After reviewing basic arithmetic and basic equations, you will solve various algebra problems as applied to your trade. You will perform Imperial and Metric conversions, and calculate the perimeter, area and volume of many common shapes, as well as use Pythagorean theorem.

MATH 178 Mathematics 1
Credit Units: 2.0  Course Hours: 30.0
You will review the fundamental concepts of algebra. Your studies will focus on equations of various types, systems of linear equations, variation, properties of exponents and logarithms, logarithmic and exponential equations and graphing. Biological and chemical applications will be used whenever possible.

MATH 181 Industrial Mechanics Certificate Trade Mathematics
Credit Units: 4.0  Course Hours: 60.0
You will review basic mathematics and the Imperial and Metric systems of measurement. You will be introduced to mathematical concepts that support applications in the industrial mechanics trade and your studies will focus on these various applications.

MATH 182 Mathematics
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s):  MAT 122, MAT 226
You will review trigonometry, algebraic, logarithmic, exponential and trigonometric functions and their graphs, and trigonometric identities. You will also receive an introduction to differential calculus involving algebraic functions.

MATH 189 Mathematics 1
Credit Units: 4.0  Course Hours: 60.0
You will review the fundamental concepts of algebra and trigonometry. Your studies will focus on equations of various types, systems of linear equations, variation, properties of exponents and logarithms, logarithmic and exponential equations, graphing and trigonometry. Whenever possible, problem solving will be directly related to chemistry applications. You will also receive an introduction to calculus.

MATH 191 Mathematics
Credit Units: 0.0  Course Hours: 16.0
Equivalent Course(s):  MATH 119, MATH 125, MATH 182, MATH 187
Your studies will focus on the basic mathematics needed for shop calculations. The course content includes fractions, decimals, percent, equations, ratios, proportions, powers and roots.

MATH 192 Laboratory Mathematics
Credit Units: 2.0  Course Hours: 30.0
You will develop the mathematical skills needed to work in a research or diagnostic laboratory. Your studies will focus on the various types of solution calculations and different units of measurement.

MATH 193 Technical Mathematics and Differential Calculus
Credit Units: 5.0  Course Hours: 80.0
Equivalent Course(s):  MATH 182
Your studies will review trigonometry, trigonometric identities and algebraic, logarithmic, exponential and trigonometric functions and their graphs. You will also receive an introduction to differential calculus of algebraic functions.

MATH 199 Mathematics
Credit Units: 4.0  Course Hours: 66.0
You will review basic mathematics and the metric system of measurement. The course content includes percent, ratio, proportion, area, volume and equations. You will then focus on the applications of mathematics in the trade that include electrical, pressure, pneumatics and elementary thermodynamics calculations.

MATH 204 Business Mathematics
Credit Units: 3.0  Course Hours: 45.0
You will deal with commercial problems involving discounts, markups, ratios and proportions. You will examine the concept of Time Value of Money. With the assistance of a financial calculator, you will solve a variety of practical business problems involving simple interest, compound interest, ordinary annuities and amortization of debt.

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# Course Descriptions

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<tr>
<th>Course Code</th>
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<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 278</td>
<td>Mathematics 2</td>
<td>2.0</td>
<td>30.0</td>
<td>MATH 178</td>
<td>You will review the fundamental concepts of trigonometry and be introduced to elementary topics in calculus, including limits and derivatives. Biological and chemical applications will be used whenever possible.</td>
</tr>
<tr>
<td>MATH 280</td>
<td>Mathematics for Veterinary Technology</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>You will review basic mathematical concepts such as ratio, proportion, fractions, decimals, percents and equations. You will also receive an introduction to statistics and graphing. Your studies will focus on units of measurement, drug dosage calculations, IV flow rate calculations, and dilution and solution calculations.</td>
</tr>
<tr>
<td>MATH 281</td>
<td>Applied Mathematics</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td>You will learn the basic mathematical skills needed to function effectively in the hospitality industry. You will apply these concepts to food quantity and cost calculations, and recipe yield conversions.</td>
</tr>
<tr>
<td>MATH 282</td>
<td>Mathematics of Computation</td>
<td>3.0</td>
<td>45.0</td>
<td>COSC 190</td>
<td>You will investigate the characteristics of discrete and continuous systems from a programming perspective and compare and contrast programming techniques required for dealing with discrete system data (Boolean values, integer numbers, and character data) with those for continuous system data (floating point numbers). You will also investigate the nature and propagation of error as a result of programming. You will explore number systems and programming techniques for solving simultaneous equations, integrating functions, finding roots, compressing data and encrypting data.</td>
</tr>
<tr>
<td>MATH 289</td>
<td>Mathematics 2</td>
<td>4.0</td>
<td>60.0</td>
<td>MATH 189</td>
<td>You will focus on differential and integral calculus. You will learn differentiation of algebraic and transcedental functions, and applications of the derivative. You will study numerous methods of integration and selected applications of integration. Your studies will also include an introduction to partial derivatives.</td>
</tr>
<tr>
<td>MATH 298</td>
<td>Applied Mathematics</td>
<td>5.0</td>
<td>80.0</td>
<td></td>
<td>You will be introduced to mathematical concepts for use on the job. You will learn how to do simple and complex formulas, as well as solve problems that require a variety of math skills. Emphasis is placed on applying mathematical concepts to real-world problems.</td>
</tr>
<tr>
<td>MATH 299</td>
<td>Intermediate Algebra and Basic Trigonometry</td>
<td>3.0</td>
<td>45.0</td>
<td>MAT 120, MAT 122, MATH 182, TSYH</td>
<td>You will review the fundamentals of algebra and trigonometry. The course content includes algebraic operations on equations, problem solving, quadratic equations, systems of linear equations, areas, volumes and basic trigonometry.</td>
</tr>
<tr>
<td>MATH 301</td>
<td>Forestry Math Fundamentals</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>You will learn and practice the math fundamentals required for analyzing and solving forestry-related questions and problems.</td>
</tr>
<tr>
<td>MATH 389</td>
<td>Mathematics</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>You will study the mathematics, algebra and geometry needed to solve various aviation related mathematical and physics problems.</td>
</tr>
<tr>
<td>MATH 390</td>
<td>Technical Mathematics for Engineering Calculations</td>
<td>1.0</td>
<td>15.0</td>
<td>MATH 299</td>
<td>You will receive advanced instruction and practice using algebra and geometry-trigonometry with emphasis on calculations used in thermodynamics and applied mechanics.</td>
</tr>
<tr>
<td>MCYL 107</td>
<td>Fuel Systems</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>You will study the theory of operation and learn how to service motorcycle and ATV carburetion and fuel systems.</td>
</tr>
</tbody>
</table>
## Course Descriptions

### MCYL 108 Starting, Charging and Ignition Systems
Credit Units: 4.0  Course Hours: 54.0
You will learn the theory of operation and the servicing procedures of motorcycle/ATV starting and charging systems. The course content includes servicing various electrical accessories. You will also learn the theory of operation of the ignition systems used on motorcycles and ATV’s, such as transistorized, and CDI ignitions. You will learn how to troubleshoot and adjust these systems.

### MCYL 109 Maintenance
Credit Units: 4.0  Course Hours: 54.0
Equivalent Course(s): MCYL 203
You will cover the common service procedures required by a motorcycle/ATV technician. You will learn to perform maintenance tasks, including lubrication servicing, valve adjustment, clutch service, cooling system servicing and tune-up.

### MCYL 110 Motorcycle Two-Stroke Engines
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): MCYL 204
You will focus on the practical skills required to service two-stroke engines. These skills include piston, crankshaft and transmission servicing.

### MCYL 111 Motorcycle Four-Stroke Engines
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s): MCYL 205
You will learn how to service and repair four-stroke motorcycle/ATV engines. Practical, hands-on skills will be emphasized. The course content includes a research project into the future trends in the motorcycle/ATV industry.

### MCYL 112 ATV Clutches and Drives
Credit Units: 2.0  Course Hours: 24.0
Equivalent Course(s): MCYL 206
You will explore the clutches and drive systems unique to ATV’s. You will study the theory of operation of belt drives, differentials, final drives and CV joints. You will also learn how to service clutches and drives.

### MCYL 113 Brakes, Steering and Drives
Credit Units: 3.0  Course Hours: 48.0
Equivalent Course(s): MCYL 207
You will learn how to repair and service motorcycle/ATV wheels, tires, brakes, front suspension and final drives. The course content includes the theory and procedures you need to troubleshoot handling problems.

### MEAS 100 Precision Measurement
Credit Units: 3.0  Course Hours: 45.0
You will learn how to select appropriate measuring tools and perform accurate measurements.

### MEAS 104 Precision Measuring Tools
Credit Units: 1.0  Course Hours: 12.0
You will learn how to use precision measuring tools in the metric and imperial systems.

### MEAS 106 Analytical Measurements
Credit Units: 3.0  Course Hours: 39.0
Equivalent Course(s): ENVR 120, MEAS 108
You will learn to work safely in a laboratory and field setting. You will learn to work effectively with measurement numbers related to the collection and analysis of water, air and soil samples. Emphasis will be placed on the importance of documenting practices and procedures in support of Quality Assurance/Quality Control (QA/QC) and due diligence.

### MEAS 107 Applied Trade Measurement
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s): MEAS 182
You will learn the skills needed to calculate, convert and apply common trade measurements on the job.

### MEAS 108 Analytical Measurements
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): MEAS 106
You will learn to work safely in a laboratory and field setting. You will learn to work effectively with measurement numbers related to the collection and analysis of water, air and soil samples. Your studies will emphasize the importance of documenting practices and procedures in support of Quality Assurance/Quality Control (QA/QC) and due diligence.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAS 109</td>
<td>Environmental Measurements</td>
<td>4.0</td>
<td>60.0</td>
<td>You will examine protocols for environmental sampling where you will learn about the collection, preservation and transportation of samples. You will collect field measurements and be introduced to statistical analysis as a means of managing measurement error. Emphasis will be placed on working safely. As such you will follow safe practices and will be required to assist in identifying risk and measures to reduce risk. An understanding of hazardous materials will be developed through working with content provided in Safety Data Sheets.</td>
</tr>
</tbody>
</table>
| MEAS 161    | Precision Measurement and Tooling | 4.0          | 60.0         | Corequisite(s): BESK 170  
Equivalent Course(s): MEAS 100  
You will be introduce to fundamental measuring systems and tools. You will practice using steel rules, Vernier calipers, micrometers, angular measuring tools, and surface finish measuring tools. |
| MEAT 100    | Meat, Seafood and Poultry Processing (Theory) | 2.0          | 30.0         | Your studies will focus on the structure, composition and handling of meat, poultry and seafood. You will learn the Canadian systems for classifying, inspecting and grading meat, poultry and seafood. You will also learn how to identify cuts of beef, veal, lamb and pork. |
| MEAT 101    | Meat, Seafood and Poultry Processing (Practical) | 4.0          | 60.0         | You will process beef, pork, and poultry. You will handle and store fresh and frozen meats and poultry. You will also observe the processing of seafood. |
| MEAT 102    | Meat, Seafood and Poultry Cooking (Theory) | 2.0          | 30.0         | You will be introduced to the general principles of cooking and handling meats, seafood and poultry. You will learn a variety of preparation and cooking techniques for beef, pork, poultry, lamb and veal. |
| MEAT 103    | Meat, Seafood and Poultry Cooking (Practical) | 4.0          | 60.0         | You will cook meat, seafood and poultry using moist heat methods, dry heat methods and dry heat methods with fat. You will cook a variety of meats and prepare poultry dressing. You will also gain experience in holding and storing cooked meat, seafood and poultry. |
| MEAT 106    | Processing Lamb, Goat and Seafood | 2.0          | 30.0         | You will identify and produce primal, sub-primal, retail and value added cuts from Canadian lamb and goat. You will study the common species of seafood. You will produce, cost, wrap, and retail your lamb, goat and seafood products. |
| MEAT 195    | Muscle and Skeletal Structure | 2.0          | 30.0         | You will study the skeletal structure, bone classifications, muscle types and composition. You will learn the various cooking methods for different muscle groups. |
| MEAT 281    | Processing Pork | 5.0          | 75.0         | You will acquire the skills needed to break down pork into primal and sub-primal cuts. You will prepare, package and cost retail pork products. |
| MEAT 282    | Processing the Hind of Beef | 5.0          | 75.0         | You will process the hindquarter of beef. You will produce primal, secondary, fabricated, retail and value added products. You will produce, cost, wrap and retail your beef products. |
| MEAT 283    | Processing the Front of Beef | 5.0          | 75.0         | You will process the front quarter of beef. You will develop skills to produce primal, fabricated, retail and value added products. You will produce, cost, wrap and retail your beef products. |

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## MEAT 285 Processing Poultry
Credit Units: 4.0  Course Hours: 60.0
You will process common poultry species. You will develop skills needed to produce fabricated, retail and value-added poultry products. You will produce, cost, wrap and retail your poultry products.

## MEAT 286 Curing and Smoking
Credit Units: 4.0  Course Hours: 60.0
You will process and produce common cured and smoked varieties of sausages, bacons and hams. You will formulate, process and package a variety of meat products for the retail counter.

## MEAT 287 Sausage Making
Credit Units: 3.0  Course Hours: 45.0
You will process and produce common fresh sausage varieties. You will formulate, mix, stuff and package fresh sausages for retail.

## MEAT 288 Value-Added Products
Credit Units: 2.0  Course Hours: 30.0
You will identify methods and ingredients used in value added products. You will produce a variety of value added pork, beef and poultry products.

## MECA 201 Fluid Mechanics Applications
Credit Units: 4.0  Course Hours: 64.0
Prerequisite(s): MAT 226, MECA 200
Building on your skills gained in applied mechanics, you will study the steady flow energy equation. Your studies will include open channel design, pipe sizing considerations, pump selection as well as open and closed loop piping system. You will analyze pumping requirements for series and parallel piping systems using computer software.

## MECH 160 Applied Mechanics: Statics
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MATH 167*
You will use basic algebra, plane geometry and trigonometry to calculate forces in stationary machines and study the effect of forces acting on bodies in equilibrium without motion. You will solve problems involving friction, static structures, centre of gravity and moment of inertia.

## MECH 161 Applied Mechanics: Dynamics
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MECH 160
Your studies will focus on kinematics and kinetics. In kinematics, you will analyze the geometry of rectilinear, circular and general plane motions. In kinetics, you will analyze the forces and movements associated with motion using the dynamic equilibrium method, the work, energy power method and the impulse-momentum method. You will learn how to solve applied problems involving motion only and the forces causing that motion. You will also study linkage mechanisms and their motion.

## MECH 200 Industrial Mechanical and Piping Drafting 1
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): DRFT 205
You will be introduced to cross-discipline design and drafting for industrial mechanical and piping samples. Your studies will focus on best practices for industrial mechanical and piping industries for drafting, modelling, assemblies and documentation. Your applied exercises will include your producing industrial mechanical drawings.

## MECH 201 Industrial Mechanical and Piping Drafting 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MECH 200
You will develop cross-discipline solutions by applying best practices in CAD design, drafting, modelling, assemblies and documentation. You will design and interpret authentic design problems while developing and expanding your parametric modeling skills. You will select appropriate information from catalogues and charts.

## MECH 202 Industrial Mechanical and Piping Project
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): MECH 201, MECH 210
You will use the expertise and knowledge you acquired in previous courses to develop, design and draft a piping system and layout using Building Information Modelling (BIM) Technology. You will generate all aspects of the piping design from modeling, collaborating, estimating and drafting using appropriate BIM software. You will produce the piping and facility layout section of the design project which will be coordinated with the civil and structural designs. Your studies will focus on implementing and applying design and drafting standards.

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### MECH 210 Elements of Applied Mechanical Drafting
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): ENG 200, ENG 201
You will apply codes and standards pertaining to storage tanks, pumps and boiler design and selection. You will learn how to analyze and apply process flow to mechanical equipment based on your preliminary design and system layouts. You will also learn how to design complimentary elements including pipe supports, walkways and stairs in an industrial setting.

### MED 100 Foundations of Medical Device Reprocessing
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): MED 100CE
You will study the functioning of the medical device reprocessing (MDR) department and examine the roles and responsibilities of the medical device reprocessing technician (MDRT). You will study medical terminology, major body systems, microbiology, infection prevention and control, safety, and required Canadian Standards as they relate to MDR. You will observe the fundamentals and components of MDR in a work integrated learning experience in the MDR department.

### MED 101 Decontamination: Cleaning and Disinfection
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MED 100
Equivalent Course(s): MED 101CE
You will study the decontamination process in a medical device reprocessing (MDR) department. You will learn cleaning and disinfecting processes and the equipment used to decontaminate medical devices. You will learn the process of decontaminating surgical instruments, patient care equipment, and rigid and flexible endoscopy equipment. You will study policies and procedures related to the decontamination area. You will apply your knowledge during a work integrated learning experience in the MDR department.

### MED 102 Preparation and Packaging
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MED 101
Equivalent Course(s): MED 102CE
You will study the inspection, sorting, assembling, and packaging of medical devices. You will study the classifications of surgical instruments and their preparation for sterilization. You will discuss wrapping, packaging, container systems, and sterility indicators. You will practice inspection, assembly and packaging of instruments during a work integrated learning experience in the medical device reprocessing department.

### MED 103 Sterilization, Storage and Distribution
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MED 102
Equivalent Course(s): MED 103CE
You will study the principles and methods of sterilization. You will study the monitoring criteria of sterilization and discuss the storage, and distribution of sterile supplies. You will review single use medical devices and loaner instruments. You will demonstrate sterilization, storage, and distribution during a work integrated learning experience in the medical device reprocessing department.

### MED 161 Medical Terminology
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): MED 160, MED 161CE, MTER 200
Your studies will focus on medical language and its use in practical situations. You will be introduced to the structure and function of medical language and the medical terms relating to body systems.

### METL 100 Metallurgy and Heat Treatment of Metals
Credit Units: 2.0  Course Hours: 24.0
You will become familiar with the physical and chemical properties of commonly used metals in the welding trade. You will study the effect of the heating and cooling cycle involved in welding operations (with particular attention given to the heat affected zone). You will also review the use of heat to correct distortion and to change the physical properties of metals, and the classification system for identifying metal.

### METL 101 Metallurgy and Fabrication
Credit Units: 3.0  Course Hours: 45.0
You will learn theory and practical application of metallurgy for steels. You will learn theoretical and practical fabrication techniques.

### METL 105 Metallurgy
Credit Units: 3.0  Course Hours: 45.0
You will learn theory and practical application of metallurgy for steels. You will learn practical forging techniques.
### METL 107 Metallurgy and Material Designations
Credit Units: 3.0  Course Hours: 40.0
You will learn to describe steel grades and how to identify and describe structural steel, plate, grating, pipe, tube and industrial fasteners.

### METL 114 Heat Treatment of Metals
Credit Units: 1.0  Course Hours: 18.0
You will become familiar with the physical and chemical properties of commonly used metals in the welding trade. You will study the effect of the heating and cooling cycle involved in welding operations (with particular attention to the heat-affected zone). You will also review the use of heat to correct distortion and to change the physical properties of metals, and the classification system for identifying metal.

### METL 120 Basic Metal Work
Credit Units: 10.0  Course Hours: 150.0
Prerequisite(s):  SFTY 126*
You will learn how to smooth and shape metal panels. You will also learn how to finish automotive panels by filing, grinding and applying body filler. The course content includes repairing minor rust damage.

### METL 181 Soldering
Credit Units: 3.0  Course Hours: 40.0
You will learn soldering and brazing techniques as well as proper use of acetylene equipment. You will also learn how to work with the metals used in refrigeration and air conditioning.

### METL 220 Advanced Metal Work
Credit Units: 8.0  Course Hours: 120.0
Prerequisite(s):  DOOR 120, ELEC 120, GLAS 120, METL 120, PLST 120, SFTY 126*, SHME 120, WELD 178
You will focus on analyzing repair costs and repairing minor and major collision damage (including fibre-reinforced, plastic and rust repairs).

### MGMT 101 Kitchen Management
Credit Units: 2.0  Course Hours: 30.0
You will learn a variety of concepts, principles and practices related to kitchen management.

### MGMT 102 Project Management
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  ELTR 196, ELTR 198, DGTL 108, DGTL 109, COMP 111, SHOP 110
Corequisite(s):  TCOM 103
You will learn how to use project management techniques and apply them to an electronics project. A hands-on approach will help you learn the principles and concepts of project management (including typical documents and procedures associated with managing an engineering project). You will maintain appropriate documentation and provide regular progress updates to your advisor.

### MGMT 103 Construction Contracts
Credit Units: 3.0  Course Hours: 40.0
Equivalent Course(s):  MGMT 225
You will be introduced to construction contracts and all of its aspects, including Canadian contract law and the contract standards (CCDC). The course provides an introduction to construction project organization and contracting. You will also be introduced to how a typical construction project is organized, awarded, managed and completed; as well as the roles and requirements of all parties involved.

### MGMT 104 Case Management
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  MGMT 104CE
You will develop the case management skills required by agencies that provide services to victims of crime and/or traumatic events. You will develop case plans based on case files.

### MGMT 105 Volunteer Management
Credit Units: 2.0  Course Hours: 24.0
Equivalent Course(s):  MGMT 105CE
You will apply volunteer management skills in an agency setting and evaluate the effectiveness of volunteer programs.

### MGMT 106 Organizational Management
Credit Units: 4.0  Course Hours: 60.0
You will receive an introduction to management concepts, processes and techniques. You will focus on the components of management including planning, organizing, leading and controlling.
MGMT 115 Management Principles  
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s):  MGMT 115CE  
You will focus on the goals, functions and roles of management. You will learn what management is and what it takes to become a successful manager. You will examine different types of managers, the ways that they are effective, and consider situations where one management style may be better than another.

MGMT 116 Business Management  
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s):  MGMT 116CE, SFCP 606  
You will focus on business structure and financial management. You will focus on ownership types, financing, and liabilities of a business. You will identify the financial and business structures that will enable success in the workplace.

MGMT 124 Business Leadership  
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s):  ADMN 206  
You will obtain a solid understanding of organizations and personal leadership. Your study will focus on blending principles and techniques of leadership, motivation, management, and self-development in an effort to help you develop your own philosophies about managing and being managed. Key topics include: leadership effectiveness through the application of motivational techniques, facilitating follower empowerment, experiential learning, and strategic leadership.

MGMT 125 Business Communications  
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s):  BCOM 600  
You will practice written and oral communication skills managers use on the job. You will study how to write effective letters, emails, and reports. You will practice planning and conducting meetings and doing verbal presentations.

MGMT 126 Organizational Behaviour  
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s):  ADMN 220  
You will study human behaviour in organizations and develop the skills needed to deal with people at work. The course content includes individual behaviour, values, interpersonal relationships, group and team dynamics, and organizational culture. Your studies of human organizational behavior will focus on diverse formal organizations.

MGMT 127 Accounting for Managers  
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s):  FIN 121  
In your studies, you will gain the required knowledge of accounting and finance to perform your role as a manager. Your studies will include an introduction to essential accounting concepts, the development and analysis of financial statements, profit planning to aid management decisions, management of working capital, and preparation of sales and cash budgets.

MGMT 128 Business Software Applications  
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s):  COMP 120  
Your studies will focus on the practical use of Microsoft Word, Excel, Outlook, and PowerPoint. You will learn a wide range of skills from intermediate to advanced in each of the applications.

MGMT 129 Strategic Management  
Credit Units: 3.0  Course Hours: 45.0  
You will study the key concepts, tools, and principles of strategy formulation and competitive analysis, designed to capitalize on emerging opportunities. Your studies are focused on information analyses, organizational processes, skills, business knowledge and judgement that managers must possess to devise strategy, to position their firms to sustain and maximize progress in the face of uncertainty and competition. You will take a general management perspective, viewing the organization as a whole entity by examining how policies in each functional area are integrated and woven to represent the whole firm to achieve sustainability and profitability in an ever changing and competitive environment.
## Course Descriptions

### MGMT 130 Project Management
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s): MKTG 228  
You will develop the skills and techniques required to make an effective contribution to, and have an immediate impact on, successful projects. You will develop the knowledge required to initiate, plan, execute, control and close projects. You will gain a working knowledge of MS Project software and be able to use it to schedule, budget, and control projects.

### MGMT 131 Business Law and Ethics
Credit Units: 3.0  Course Hours: 45.0  
Your studies will focus on the field of business law and its related concepts of ethics, privacy, and confidentiality. You will examine the concepts of contract law and apply them in business contexts. You will also learn and apply legislation related to torts, agency, various forms of business organization, and the sale of goods. Particular emphasis will be placed on applying ethical decision-making within business contexts, as well as on the essential nature of privacy and confidentiality in business relationships.

### MGMT 132 Marketing Management
Credit Units: 3.0  Course Hours: 45.0  
You will gain an appreciation of the role of marketing management and marketing strategy to the survival and success of the organization within a competitive and dynamic business environment. You will create and present a comprehensive marketing plan for the marketing activities within a particular industry.

### MGMT 133 Change Management
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s): HR 236  
You will develop strategies and processes related to creating and fostering an evolving workplace culture that supports innovation, change, quality and learning and results in harmony between the organization’s needs and employee’s expectations while remaining consistent with the organization’s business plan in a competitive and changing environment. The course content emphasizes the importance of implementing change in the proper sequence of events and interactions.

### MGMT 134 Cross-Cultural Management
Credit Units: 3.0  Course Hours: 45.0  
You will gain the expertise to leverage an organization’s diverse workforce to enhance its competitive advantage. Your studies will include the elements of culture that define societies, intercultural communication skills that support collaboration, and strategies that enhance organizational and personal efficiency and effectiveness.

### MGMT 135 Volunteer Management and Organizational Development
Credit Units: 4.0  Course Hours: 60.0  
You will study issues and challenges related to nonprofit organizations, including volunteer management, boards’ development, grant writing and partnership.

### MGMT 184 Introduction to Management
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s): ADMN 126  
You will focus on the fundamental principles and concepts related to the field of management. The major components of management including controlling, leading, organizing, planning and staffing will be covered. You will be introduced to the different management styles and skills necessary for success in business today.

### MGMT 189 Managerial Skills
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s): MGMT 189CE, SFCP 607  
You will focus on the goals, functions and roles of management. You will focus on team building, leadership, and management principles. You will identify essential and employability skills that will enable success in the workplace.

### MGMT 190 Statistics
Credit Units: 6.0  Course Hours: 90.0  
Prerequisite(s): COMP 192*  
You will be introduced to data management and interpretation of results through statistical analysis. As you will be collecting and evaluating large amounts of data, this course will help you to understand the statistical significance of the data and why the number and frequency of samples are important. Microsoft Excel is used in statistical calculations.
### MGMT 191 Organizational Behaviour

**Credit Units:** 4.0  **Course Hours:** 60.0  
**Equivalent Course(s):** ADMN 220, MGMT 191CE  
Your studies will focus on how to best assist employers and their workers through changes and challenges in the realm of occupational health and safety. You will also focus on improving your personal leadership qualities to assist you in recognizing how principles of organizational behavior and leadership style can be used to capitalize on the strengths and weaknesses in any occupational health and safety management system.

### MGMT 193 Behaviour Supports in Youth Care

**Credit Units:** 3.0  **Course Hours:** 45.0  
**Equivalent Course(s):** MGMT 193CE, MGMT 281  
You will be introduced to the behavioural change process as it applies to the youth care worker's role with children and youth at risk. You will examine the theories, principles, and strategies designed to increase optimal behaviours and decrease inappropriate behaviours. You will study practical guidelines and techniques for working with children and youth at risk in the context of family and community. You will learn the role of functional behaviour assessment in managing disruptive behaviour.

### MGMT 203 Committees, Boards and Volunteer Management

**Credit Units:** 2.0  **Course Hours:** 30.0  
You will explore issues and challenges related to working with boards and committees. You will prepare yourself to implement effective strategies to manage volunteers.

### MGMT 204 Introduction to Recreation Facilities

**Credit Units:** 3.0  **Course Hours:** 45.0  
You will examine facility policies and procedures, maintenance practices, daily operations and facility design. You will study the operation and management of facilities.

### MGMT 207 Project Management Applications

**Credit Units:** 4.0  **Course Hours:** 60.0  
**Prerequisite(s):** PROJ 287  
**Corequisite(s):** CVEN 201, MECH 202, STRU 201, STRU 202  
You will apply your project management skills to develop all required aspects of a project proposal for a building site and a building. You will develop all aspects of the project team, contracts, delivery, estimating, scheduling and control in conjunction with the proposal using appropriate software.

### MGMT 208 Cross-Cultural Management

**Credit Units:** 4.0  **Course Hours:** 64.0  
**Equivalent Course(s):** ADMN 205, MGMT 208CE  
You will gain the expertise to leverage an organization’s diverse workforce to enhance its competitive advantage. Your studies will include the elements of culture that define societies, intercultural communication skills that support collaboration, and strategies that enhance organizational and personal efficiency and effectiveness.

### MGMT 209 Strategic Management

**Credit Units:** 4.0  **Course Hours:** 64.0  
**Equivalent Course(s):** MGMT 209CE  
You will study management processes, strategies, techniques that are consistent with corporate business strategy and designed to capitalize on emerging opportunities. Your studies will equip you with the critical skills and knowledge required to make important business decisions. You will develop the business expertise to engage in strategic planning that supports the integration of functional business activities of production, finance and marketing.

### MGMT 211 Project Management

**Credit Units:** 2.0  **Course Hours:** 30.0  
You will be introduced to project management. You will examine the basic theory of project planning and control, from project initiation to project close out. You will apply research techniques and various tools to practice project management theory in a variety of projects. You will practice skills using project management software.

### MGMT 212 Project Management

**Credit Units:** 4.0  **Course Hours:** 60.0  
The course provides you an understanding of project organization, management, and contracting particularly as it relates to environmental consulting and practice. You will also learn how a typical project is organized, awarded, managed and completed through the tendering and bidding process, as well as the roles and requirements of all parties involved. You will practice scheduling, resource allocation, financial analysis, and estimating. You will estimate the cost for a project and prepare a project bid according to specifications.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 213</td>
<td>Introduction to Management</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will be provided with an overview of the development of management theory and practices. The course content includes organizing, planning, leading, controlling functions, and focuses on decisions in different types of environments.</td>
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<tr>
<td>MGMT 222</td>
<td>Management</td>
<td>3.0</td>
<td>44.0</td>
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<td></td>
<td>You will study management theory and management practices with specific applications to project, economic, human resource and stress management. Training exercises, cases, videos and other materials will help you develop practical management skills.</td>
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<tr>
<td>MGMT 225</td>
<td>Technical Management</td>
<td>3.0</td>
<td>40.0</td>
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<td>Prerequisite(s): MAT 120</td>
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<td></td>
<td>Equivalent Course(s): MGMT 103</td>
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<td>The course provides an introduction to various aspects of Canadian business in technical areas. You will calculate and evaluate project economies. You will also study the advantages, disadvantages and philosophy of various business ownerships (including sole proprietorships, partnerships, corporations and cooperatives), business organizations, management theories, production, inventory, quality control, marketing and promotion, personnel management and supervision.</td>
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<tr>
<td>MGMT 226</td>
<td>Project Management</td>
<td>4.0</td>
<td>64.0</td>
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<tr>
<td></td>
<td>Prerequisite(s): MGMT 103</td>
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<td>Your studies will focus on the project management process. You will practice scheduling, resource allocation, estimating and bidding. You will estimate cost for a small project and prepare a project bid.</td>
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<tr>
<td>MGMT 228</td>
<td>Management Principles</td>
<td>3.0</td>
<td>45.0</td>
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<td></td>
<td>Equivalent Course(s): ADMN 220, TCOM 227</td>
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<td>You will study human behaviour in organizations and develop the skills needed to deal with people at work. The course content includes individual behaviour, values, interpersonal relationships and communications, groups and team dynamics, organizational culture, leadership, and change. All topics are dealt with in the context of diverse formal organizations.</td>
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<tr>
<td>MGMT 282</td>
<td>Library Management - Theory and Practice</td>
<td>3.0</td>
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<td></td>
<td>Prerequisite(s): ORTN 190</td>
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<td>You will focus on the principles of management with particular emphasis upon the role of the technician as supervisor within school, public, academic and special libraries. Management styles, planning, staff selection, supervision, and leadership styles, motivation, evaluation and budgeting will be covered. You will be expected to integrate the theoretical framework with practical applications through case studies, readings, simulations and class discussion.</td>
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<tr>
<td>MGMT 284</td>
<td>Project Management</td>
<td>3.0</td>
<td>40.0</td>
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<tr>
<td></td>
<td>Corequisite(s): PROJ 288</td>
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<td>Equivalent Course(s): PROJ 287</td>
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<td>Building on the skills you developed in CAD 281 (Computer Aided Engineering 1), you will learn how to use project management techniques and apply the concepts to manage engineering projects. You will describe the principles and concepts of project management as related to a specific project (including typical documents and procedures associated with contract documents). You will use MS Project to schedule projects and prepare a critical path network diagram.</td>
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<tr>
<td>MGMT 285</td>
<td>Engineering Contracts</td>
<td>1.0</td>
<td>10.0</td>
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<td>You will be provided an overview of the role of a technologist in an engineering team. As well, you will study documents associated engineering contracts.</td>
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<tr>
<td>MGMT 286</td>
<td>Organizational Behaviour for the Hospitality Industry</td>
<td>3.0</td>
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<td></td>
<td>Prerequisite(s): MGMT 184</td>
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<td></td>
<td>Equivalent Course(s): MGMT 283, SUPR 180</td>
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<td></td>
<td>You will learn the concepts of management, leadership, power, politics, ethics, delegation, and change management.</td>
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<td>MGMT 400</td>
<td>Construction Contracts and Documents</td>
<td>3.0</td>
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<td>Prerequisite(s): LAW 300</td>
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<td></td>
<td>You will learn to prepare, interpret and apply the documents used for construction management,.</td>
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# Course Descriptions

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
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</thead>
<tbody>
<tr>
<td>MGMT 402</td>
<td>Land Use Management</td>
<td>2.0</td>
<td>30.0</td>
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<td></td>
<td>You will use the fundamentals of forest ecosystem management and a variety of public communications and public input techniques to describe operational forest planning in Saskatchewan.</td>
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<tr>
<td>MGMT 403</td>
<td>Construction Project Management</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>Prerequisite(s): ESTM 400, MGMT 400, PLAN 400</td>
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<td></td>
<td>You will learn the knowledge and skills necessary to manage a construction project. You will learn the role of the construction manager, from the bidding phase to project completion, including the preparation of documents and reports used to manage a construction project.</td>
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<tr>
<td>MGMT 404</td>
<td>Managing Change</td>
<td>3.0</td>
<td>45.0</td>
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<td>Prerequisite(s): LEAD 303</td>
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<td>You will develop a strategic perspective on managing the four phases of change and your role as a change agent. Your studies will include content that will support your role as a change agent and the personal factors that you will use when you are leading an organizational change. You will explore challenges that organizations face, and you will develop a leadership perspective that will assist you to deal with change or manage change.</td>
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<td>MGMT 405</td>
<td>Strategic Business Management</td>
<td>3.0</td>
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<td>Prerequisite(s): ACCT 300</td>
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<td>You will study management processes, strategies, techniques that are consistent corporate business strategy and designed to capitalize on emerging opportunities. Your studies will equip you with the critical skills and knowledge required to make important business decisions. You will develop the business expertise to engage in strategic planning that supports the integration of functional business activities of production, finance and marketing.</td>
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<td>MGMT 406</td>
<td>Risk Management</td>
<td>3.0</td>
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<td>You will learn how to identify and manage threats, both external and internal, focusing on best practices in the field of risk management. You will learn to recognize the normal operating and financial risks of all businesses along with the threats posed by natural causes and disasters, legal liabilities, technical failures, crime and terrorism. You will learn how to manage threats and deal with them in an appropriate and effective manner that can be measured, including the development of risk avoidance and reduction strategies.</td>
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<td>MGMT 407</td>
<td>Cross-Cultural Management</td>
<td>3.0</td>
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<td>You will learn skills, knowledge, and attitudes that support the transformation of diversity into a competitive advantage. Your studies will include the elements of culture that define societies, intercultural communication skills that support collaboration, and strategies that enhance organizational and personal efficiency and effectiveness.</td>
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<tr>
<td>MGMT 600</td>
<td>IT Operations Management and Strategic Planning</td>
<td>3.0</td>
<td>45.0</td>
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<td>Prerequisite(s): MGMT 129</td>
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<td>You will learn the fundamentals of information technology (IT) operations management in an organization. This will include the information technology infrastructure library (ITIL) techniques for providing effective services and continual service improvement. You will also learn the fundamentals of strategic planning and the construction and monitoring of a balanced score card for an organization or department. You will also develop a strategy for moving an organization’s technical capacity from a limited current state to an improved future state.</td>
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<tr>
<td>MGMT 601</td>
<td>Strategic Management</td>
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<td>Equivalent Course(s): MGMT 129</td>
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<td>You will study the key concepts, tools, and principles of strategy formulation and competitive analysis, designed to capitalize on emerging opportunities. Your studies are focused on information analyses, organizational processes, skills, business knowledge and judgement that managers must possess to devise strategy, to position their firms to sustain and maximize progress in the face of uncertainty and competition. You will take a general management perspective, viewing the organization as a whole entity by examining how policies in each functional area are integrated and woven to represent the whole firm to achieve sustainability and profitability in an ever changing and competitive environment.</td>
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### MGMT 602 Project Management
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  MGMT 130
You will develop the skills and techniques required to make an effective contribution to, and have an immediate impact on, successful projects. You will develop the knowledge required to initiate, plan, execute, control and close projects. You will gain a working knowledge of MS Project software and be able to use it to schedule, budget, and control projects.

### MGMT 603 Change Management
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  MGMT 133
You will develop strategies and processes related to creating and fostering an evolving workplace culture that supports innovation, change, quality and learning and results in harmony between the organization’s needs and employee’s expectations while remaining consistent with the organization’s business plan in a competitive and changing environment. The course content emphasizes the importance of implementing change in the proper sequence of events and interactions.

### MGMT 604 Cross-Cultural Management
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  MGMT 134
You will gain the expertise to leverage an organization’s diverse workforce to enhance its competitive advantage. Your studies will include the elements of culture that define societies, intercultural communication skills that support collaboration, and strategies that enhance organizational and personal efficiency and effectiveness.

### MGMT 605 Introduction to Supply Chain Management
Credit Units: 3.0  Course Hours: 45.0
You will learn the key concepts and techniques used in the field of supply chain management. You will examine the relationships among strategic objectives, customer expectations, and process management. You will also explore the planning, sourcing and inventory elements of the supply chain management cycle.

### MGMT 606 Logistics and Distribution
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  MGMT 605
You will examine the logistics of supply chain management, the transportation of goods and materials, and the warehousing of goods and materials.

### MGMT 607 Risk Management
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  ADMN 602, MGMT 606
You will examine the use of risk mitigation tools and strategies to inform supply management decisions. You will practice identifying, prioritizing, and mitigating specific risks. You will develop risk mitigation plans for specific risk factors associated with a particular business’ supply chain. You will learn strategies to reduce risk and the impact of risk.

### MHA 100 Mental Health and Addictions
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  MHA 100CE
You will study mental health disorders, chemical dependency and how the effects of stigma can impact a patient. You will examine detoxification management and practice motivational interviewing. You will participate in labs and online discussions to help you develop the skills required to provide care to mental health or chemically dependent patients.

### MHA 140 Mental Health Issues and Mental Health Disorders
Credit Units: 3.0  Course Hours: 40.0
Prerequisite(s):  CDEP 158
You will examine the history, services, Aboriginal perspectives, and the role of the twelve core functions in mental health. You will learn about the basic signs and symptoms of mental health issues contained in the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM IV). You will learn about the continuum of mental health and mental well-being and the prevalence rates of mental health disorders in the general population. You will examine the effects of stigma as it relates to mental health and substance use disorders and its effect upon the client. You will learn about the Canadian Mental Health Strategy. You will also be introduced to the concept of the “Recovery Model.”

### MHA 141 Medical Issues in Mental Health
Credit Units: 1.0  Course Hours: 12.0
Prerequisite(s):  MHA 140
You will be provided with basic information regarding pharmacological treatment of mental health issues and concerns, and client concerns that may arise with the use of medications. You will be provided with an introduction to a First Nations philosophical approach to medication and issues that may arise between conflicting philosophies of First Nations and the medical model.
MHA 143 Concurrent Disorders
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s):    CLTR 148, HUMD 144, MHA 149
You will be provided with foundational knowledge regarding the relationship between mental health and substance use, risk factors, and treatment models for concurrent disorder clients. You will study prevalence rates of concurrent disorders. You will be introduced to the Saskatchewan Mental Health Act. You will use brief screening instruments and referral procedures.

MHA 144 Process Addictions
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s):    CDEP 179
You will examine the nature and extent of process addictions including problem gambling and Internet use, the phases of problem use, and the signs and characteristics of individuals who experience problem use. You will be introduced to entry level screening, assessment tools and referral sources used for process addictions, relapse and the recovery process. You will recognize the differences, similarities and relationships between gambling, other addictions and mental health issues.

MHA 145 Wellness Resource Project
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s):    COUN 159
You will shadow a mental health or an addictions counsellor in your community and through collaboration and networking you will develop resources to assist clients in working towards wellness and balance. You will examine the Recovery Model, the Whole Person Model and incorporating traditional healing practices into the recovery process.

MHA 146 Orientation to Mental Health and Addiction Services
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s):    COUN 159
You will use the core function of consulting with another professional to assist clients in their wellness and recovery journey. Using the Recovery Model, the Whole Person Model, and traditional healing practices, you will practice integrated screening, referral and treatment plan procedures to address the clients’ concerns.

MHA 147 Personal Health Strategies
Credit Units: 2.0    Course Hours: 30.0
You will review the whole person model, time management, learning styles, study techniques, various types of stressors and how they affect your mental wellbeing. You will then use the results to create individualized study and mental health plans needed to complete the program. You will explore the use of cultural activities to manage stressors.

MHA 148 Mental Health and Addictions Professionals
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s):    MHA 147
You will explore personal and professional development as it relates to the addictions and mental health industry. You will be introduced to the concepts of personal and professional development in a holistic and multifaceted approach. You will learn practical ways of exploring self-concept, self-esteem, and raising one’s self-esteem using focusing/mindfulness and a values clarification process to develop personal and professional goals.

MHA 149 Mental Health Disorders and Medical Issues
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s):    CDEP 158
You will examine the history, services, the Diagnostic and Statistical Manual of Mental Disorders (DSM V) and the Canadian Mental Health Strategy, including the continuum of mental health and mental well-being and the concept of the “Recovery Model”. You will examine the effects of stigma as it relates to mental health and substance use disorders and its effect upon the client. You will study pharmacological treatment of mental health issues, Indigenous philosophical approaches to medication, and issues that may arise between conflicting philosophies of Indigenous peoples and the medical model.

MICR 104 Microcontrollers 1
Credit Units: 3.0    Course Hours: 51.0
Prerequisite(s):    ELTR 123
You will study microcontroller hardware and peripheral components. You will learn how to interface light-emitting diodes, keypads and liquid-crystal displays with a microcontroller. You will write assembly language programs and use a simulation package to assemble and simulate the code for a microcontroller system. You will create drivers to communicate with the external peripherals. You will wire-wrap and use a microcontroller system in a hands-on environment.
### Course Descriptions

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
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<tbody>
<tr>
<td>MICR 105</td>
<td>Microcontrollers 2</td>
<td>3.0</td>
<td>51.0</td>
<td>MICR 104</td>
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<td>You will study advanced hardware and peripheral components of a microcontroller system. You will study real-time clocks, digital potentiometers, infrared detectors, serial ports, memory devices, analog-to-digital converters, compare modules, counters, capture modules and pulse width modulation. You will work with a microcontroller system in a hands-on environment and use simulation software to develop programs to interface a microcontroller with its peripherals.</td>
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<tr>
<td>MICR 106</td>
<td>Microcontrollers 3</td>
<td>4.0</td>
<td>60.0</td>
<td>MICR 105, MICR 105</td>
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<td>You will program microcontrollers using the 'C' programming language. You will use a development system with an integrated 'C' compiler that will compile and simulate your code. You will write code in 'C' to initialize a microcontroller system and all drivers for the system will be written in 'C'. You will optimize code for speed using assembly language embedded in 'C' code.</td>
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<tr>
<td>MICR 109</td>
<td>Digital Signal Processing</td>
<td>4.0</td>
<td>60.0</td>
<td>MICR 105</td>
<td>MICR 108</td>
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<td>You will study concepts and applications involving digital signal processing (DSP) and you will gain an understanding of representing signals in the discrete time domain. Your studies will introduce you to digital oscillators and digital filters. You will write and test programs using a DSP development system.</td>
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<td>MICR 110</td>
<td>Microbiology for Pharmacy Practice</td>
<td>3.0</td>
<td>45.0</td>
<td>MICR 159</td>
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<td>You will study the field of microbiology as it applies to pharmacy practice. You will learn about cell biology and microorganisms. You will study how microorganisms affect pharmacy practice and the premise for sterile practice. You will examine how epidemiology affects the public health care system.</td>
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<tr>
<td>MICR 159</td>
<td>Microbiology</td>
<td>1.0</td>
<td>22.0</td>
<td>APHY 162*</td>
<td>MICR 160</td>
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<td>You will study the various types of microorganisms, their characteristics and their role in the spread of infection. You will be introduced to the principles of health care epidemiology and the commonly used agents to control microbial growth. You will acquire knowledge of the major viral, bacterial and fungal diseases. Using group work, independent learning as well as laboratory activities you will study how the major diseases affect the immune system and the organs of the body. You will study the responsibilities and roles of health care workers in the chain of infection.</td>
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<td>MICR 160</td>
<td>Microbiology</td>
<td>1.0</td>
<td>15.0</td>
<td>ANAT 167* or APHY 162*</td>
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<td></td>
<td>You will study the various types of microorganisms, their characteristics and their role in the spread of infection. You will develop an understanding of health care epidemiology and the various agents used to control microbial growth. You will acquire knowledge of the major viral, bacterial and fungal diseases.</td>
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<tr>
<td>MICR 161</td>
<td>Medical/Surgical Nursing Skills</td>
<td>1.0</td>
<td>22.0</td>
<td>MICR 159*</td>
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<td>You will explore the concepts of microbiology in relation to infection control and patient care. You will demonstrate these concepts in the performance of select psychomotor skills in a simulated situation.</td>
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<td>MICR 185</td>
<td>Microbiology for Funeral Services</td>
<td>2.0</td>
<td>30.0</td>
<td>MICR 185CE, NEPS 212</td>
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<td>You will be introduced to the concepts of microbiology in relation to health and the process of disease in humans. You will explore the fundamentals of microorganisms in relation to the interaction with host, impact on environment, human disease and funeral service practice.</td>
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</tbody>
</table>
MICR 186 Clinical Microbiology
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): CHEM 101
You will be introduced to bacteria, viruses and fungi and how they cause disease in animals. You will also be introduced to antimicrobials and antimicrobial resistance. The laboratory component of this course teaches aseptic technique, how to properly handle clinical samples and how to perform basic procedures carried out in a clinical setting.

MICR 187 Microbiology 1
Credit Units: 6.0    Course Hours: 85.0
Prerequisite(s): MTER 180, PROC 180
You will learn how to perform microbiology and antimicrobial susceptibility techniques. You will apply your skills to clinical specimens from the urinary, gastrointestinal and respiratory tracts. Interpreting clinically significant microorganisms will be emphasized.

MICR 188 Microbiology 2
Credit Units: 3.0    Course Hours: 50.0
Prerequisite(s): MICR 187
You will learn how to interpret clinically significant microorganisms from the eye/ear, genital tract, cardiovascular and central nervous systems, skin/wound/soft tissue and deep wound sites.

MICR 189 Microbiology 3
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): MICR 188
You will learn how to interpret and recognize unusual/uncommon clinically significant microorganisms (including a limited number of fungi and parasites).

MICR 190 Introduction to Microbiology
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): MTER 180, PROC 180*, PROC 181*
You will receive the theory and practice required to culture routine microbiology specimens. You will discuss media composition, autoclaving and quality control. The course content includes stool preparation for parasitology examination and Gram staining.

MICR 261 Microbiology
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): CHEM 101
You will learn about the various types of microbes, their role in spreading infectious disease and how microbes can be controlled. You will develop an understanding of and appreciation for the prevention of disease transmission.

MICR 282 General Microbiology 1
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): ANAT 183, ANAT 184, LABT 182*
Corequisite(s): MICR 283
You will be introduced to the diversity of microbiology as an area of bioscience and its unique approaches. You will study the characteristics of microbes including their anatomy, nutrition, growth, and control. Relevant content concerning methods, techniques and equipment such as microscopes will also be covered.

MICR 283 General Microbiology 1 Lab
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): ANAT 183, ANAT 184, LABT 182*
Corequisite(s): MICR 282
You will be introduced to standard methods and techniques used in the culture, examination and identification of microbes including molecular techniques. You will study the characteristics of growth and control of microorganisms through application of laboratory methods for cultivation of bacteria. Your laboratory experience will focus on techniques for safely handling, isolating and identifying bacteria.

MICR 284 Applied Microbiology
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): MICR 282, MICR 283, LABT 182, LABT 283*
Corequisite(s): MICR 285
You will study the application of microbiology in bioscience related areas including the environment, food production and preservation, and industrial settings. You will examine several ecosystems and the roles of microbes within them. You will learn about establishing and maintaining culture collections and be introduced to the role of microbes in plant pathology.
MICR 285 Applied Microbiology Lab
Credit Units: 3.0 Course Hours: 45.0
Prerequisite(s): MICR 282, MICR 283, LABT 182, LABT 283*
Corequisite(s): MICR 284
You will learn how to examine various environmental samples for microbes and be introduced to bioreactor usage. Your laboratory studies will focus on the techniques of sample analysis and include accurate recording, tabulating and analyzing laboratory data to evaluate sample quality.

MINE 100 Raise Bore Drilling Process
Credit Units: 1.0 Course Hours: 10.0
Prerequisite(s): MINE 103
The course includes hands-on operation of the raise bore and box hole drilling processes. You will examine rock mechanics and the advantages of raise boring over manual rise mining methods.

MINE 101 Drilling the Pilot Hole
Credit Units: 16.0 Course Hours: 240.0
Prerequisite(s): MINE 100
You will gain an understanding of the procedures and hands-on skills required to safely and efficiently drill a pilot hole.

MINE 102 Reaming the Raise
Credit Units: 11.0 Course Hours: 160.0
Prerequisite(s): MINE 101
You will experience practical hands-on operating procedures to safely and efficiently ream a raise. You will learn inspection procedures, how to collar the raise, handle cuttings and procedures to remove and store reaming equipment.

MINE 103 Maintenance and Testing Procedures
Credit Units: 1.0 Course Hours: 10.0
Prerequisite(s): SFTY 109
The course provides an introduction to the drill records maintenance system and how to conduct drill rod and bit testing procedures.

MINE 104 Drilling in Uranium Ore
Credit Units: 1.0 Course Hours: 10.0
Prerequisite(s): MINE 102
You will participate in a supervised, hands-on operation of raise bore equipment in uranium ore.

MINE 105 Manual Drilling
Credit Units: 3.0 Course Hours: 50.0
Prerequisite(s): RIGG 103
You will become familiar with types of manual drilling equipment (Jackleg and Stoper drills) and their components. You will develop safe operating procedures and hands-on skills as you rig-in and operate manual drills.

MINE 106 Mine Safety
Credit Units: 3.0 Course Hours: 45.0
You will develop an understanding of common safety systems as well as emergency procedures. Based on Saskatchewan Mine Regulations, your studies will focus on mine safety topics including personal protective equipment and mine safety cultures.

MINE 107 Mining Concepts
Credit Units: 3.0 Course Hours: 45.0
Prerequisite(s): MINE 106
You will become familiar with mining terminology, the mining cycle and mining history. When you complete the course, you will be able to describe different types of underground and surface mining techniques as well as basic mining equipment.

MINE 108 Ore Transportation and Processing
Credit Units: 3.0 Course Hours: 45.0
You will study methods of material handling and transportation including trucking, conveyors, hydraulic methods and hoisting. Your studies will include basic mineral processing concepts.

MINE 109 Soils and Concrete
Credit Units: 4.0 Course Hours: 60.0
Prerequisite(s): TERR 103
You will evaluate soil properties and discuss methods of ground improvement. You will discuss and practice methods of quality control in aggregate, concrete, grout and shotcrete.

MINE 110 Computer Applications in Mining
Credit Units: 3.0 Course Hours: 45.0
You will build on your computer skills by operating standard software used in the mining industry. You will apply spreadsheet functions and achieve a basic understanding of Geographic Information Systems (GIS).
## Course Descriptions

### MINE 141 Mine Ventilation 1
Credit Units: 1.0  Course Hours: 20.0  
Prerequisite(s): SUPP 135  
You will receive an introduction to the purpose of mine ventilation systems, the types of systems used in underground mines and the components of mine ventilation systems.

### MINE 142 Manual Drilling 1
Credit Units: 3.0  Course Hours: 40.0  
The course provides an introduction to the types and components of manual drilling equipment (Jackleg and Stoper drills) used in hard-rock mines. The course content includes safety procedures and procedures for rigging-in and operating manual drills.

### MINE 143 Blasting Methods 1
Credit Units: 1.0  Course Hours: 10.0  
The course provides an introduction to the types of explosives, igniters and detonators. The course content includes safe handling, transportation and storage procedures.

### MINE 144 Ore Movement 1
Credit Units: 4.0  Course Hours: 60.0  
The course provides an introduction to some of the types of equipment (scooptram, remote controls, ore trucks and conveyors) and procedures used to handle and move muck safely.

### MINE 153 Introduction to Radiation Safety
Credit Units: 1.0  Course Hours: 30.0  
The course provides an introduction to the sources of ionizing radiation, atoms, protons, neutrons, radioactive decay chain, types of ionizing radiation, protection methods, monitoring methods, exposure limits and regulatory reporting procedures.

### MINE 145 Mine Ventilation 2
Credit Units: 1.0  Course Hours: 20.0  
Prerequisite(s): MINE 141  
Building on the knowledge of mine ventilation systems acquired in MINE 141 (Mine Ventilation 1), you will develop the skills needed to install and maintain mine ventilation systems.

### MINE 156 Manual Drilling 2
Credit Units: 7.0  Course Hours: 100.0  
Prerequisite(s): MINE 142  
Building on the knowledge and skills gained in MINE 142 (Manual Drilling 1), you will learn how to install rock bolts, prepare the face for drilling and drill patterns. You will also begin to develop hands-on skills operating manual drilling equipment.

### MINE 157 Blasting Methods 2
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): MINE 143  
Building on the knowledge and skills gained in MINE 143 (Blasting Methods 1), you will learn the safe use and methods of preparing and blasting single and multiple shots.

### MINE 158 Ore Movement 2
Credit Units: 7.0  Course Hours: 100.0  
Prerequisite(s): MINE 144  
Building on the knowledge and skills gained in MINE 144 (Ore Movement 1), you will learn the safety procedures and skills needed to operate additional types of track and tramming ore handling equipment (slushers, mucking machines and ore trucks).

### MINE 159 Shaft Operations
Credit Units: 1.0  Course Hours: 20.0  
Prerequisite(s): MINE 145  
You will study the components of a mine shaft and general shaft safety procedures.

### MINE 160 Ore Movement 3
Credit Units: 1.0  Course Hours: 15.0  
You will investigate the role that conveyor systems play in an underground mine. You will learn the component parts of a conveyor system and safe operating procedures.

### MINE 161 Cage Tending: Moving People
Credit Units: 5.0  Course Hours: 80.0  
The course covers safe working practices around a shaft. This includes provincial regulations, inspection procedures, hoist bell signals, emergency procedures and proper loading and transporting procedures for moving people.

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## Course Descriptions

### MINE 162 Cage Tending: Moving Material
Credit Units: 5.0  Course Hours: 80.0
You will be introduced to the safe working practices required when moving equipment and materials in the shaft, and study provincial regulations. You will also learn how to load and unload materials (including explosives). You will practice how to safely sling, transport and unload various types of loads under the cage.

### MINE 163 Skip Tending
Credit Units: 5.0  Course Hours: 75.0
The course covers safe working practices, the components of the loading pocket and skip loading procedures. You will learn how to conduct pre-operational inspections and load wet muck (including uranium ore) safely.

### MINE 164 Shaft Inspection Procedures
Credit Units: 5.0  Course Hours: 70.0
You will receive an introduction to the types and frequency of inspections performed in the shaft. You will perform maintenance procedures on shaft, hoist, hoist ropes, sheave wheels and shaft conveyances.

### MINE 201 Mining Methods
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  MINE 107
This course introduces you to underground and surface mining methods. You will learn about a number of topics including mining method selection; design and operation; method specific equipment and infrastructure as well pit/stope progressive reclamation strategies. You will also discover the factors governing decision to pursue surface versus underground mining including geologic variables.

### MINE 202 Mining Hydrology and Environmental Management
Credit Units: 3.0  Course Hours: 45.0
Corequisite(s):  FMEC 200
You will be introduced to how water impacts mining operations; specifically, water treatment and water management. Your studies will include environmental issues pertaining to waste and tailings management as well as reclamation processes.

### MINE 203 Blasting
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  MINE 107
You will study blasting safety, techniques, materials and related environmental issues. You will design blasting layouts for various underground and open pit mines.

### MINE 204 Mine Design and Planning
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  GRND 200, MINE 201
Corequisite(s):  GRND 201
You will apply your knowledge of mining methods to design mine plans. Using computer software, you will develop and evaluate layouts for various mining methods. You will consider how economics and scheduling impacts your mining plan.

### MINE 205 3D Drafting and Underground Software
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  DRFT 105, MINE 110
You will apply skills, acquired in drafting and surveying courses, to input data into AutoCAD and other 3D mining software packages. You will construct and manipulate simple geological models.

### MKTG 101 Commodity Marketing 1
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  AGRI 101
You will examine strategies of commodity marketing of agricultural products. You will explore marketing principles in various market situations as well as work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities.

### MKTG 120 Marketing
Credit Units: 5.0  Course Hours: 80.0
Equivalent Course(s):  MKTG 120CE
You will discover the dynamic field of marketing. You will explore what marketing is, how it works, and the effect it can have on consumers and on society. At the end of the course, you should have a strong sense of how to market ideas, skills, as well as products and services. Marketing concepts you will learn include: the strategic marketing planning process, market research, segmentation, positioning, consumer behaviour, and the marketing mix.
### MKTG 170 Introduction to Marketing
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** MKTG 120

You will focus on the role, concepts and principles of marketing in a competitive environment. You will learn the importance of developing a marketing plan that includes a satisfactory marketing mix (product, price, place and promotion). You will understand the role of a marketer with respect to assessing customer needs.

### MKTG 181 Purchasing
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Equivalent Course(s):** FOOD 194

You will become familiar with the market, market functions and the knowledge, skills and attitudes needed as a purchaser. The course content includes food purchasing, receiving, storage and inventory procedures.

### MKTG 202 Self-Promotion and Marketing
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Prerequisite(s):** MKTG 203*  
- **Equivalent Course(s):** MKTG 202CE, MKTG 222

Your studies will focus on the professional standards of personal marketing. You will discuss the components of a business plan, and conduct an informal market analysis, which will support the development of a marketing strategy. You will create elements of your promotional plan.

### MKTG 203 Introduction to Digital Marketing
- **Credit Units:** 3.0  
- **Course Hours:** 45.0

Your studies will include developing a digital marketing strategy. You will use analytics to plan and monitor the effectiveness of online marketing.

### MKTG 204 Commodity Marketing 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** MKTG 101

You will explore various methods of commodity marketing of agricultural products. You will examine options on futures as well as contracts and strategies. You will also analyze market conditions and develop a marketing plan.

### MKTG 220 Retail Strategy & Development
- **Credit Units:** 5.0  
- **Course Hours:** 80.0

You will learn to recognize the multi facets of retailing and the importance of these in any business. The course content includes the conceptual and analytical foundations needed to understand all aspects of retail management. Your studies will also focus on a logical sequence targeted towards the development of a strategy for a retail firm and or product. You will learn the skills necessary to budget, plan and manage inventory.

### MKTG 221 Relationship Selling
- **Credit Units:** 4.0  
- **Course Hours:** 64.0

Your studies will focus on a comprehensive study and practice of all aspects of selling in today’s dynamic market. Your studies will include the essential traits of a salesperson, psychological factors, product knowledge, selling aids, making the contact, closing the sale, sales management, and selling ethics.

### MKTG 222 Advertising and Marketing Communications
- **Credit Units:** 5.0  
- **Course Hours:** 80.0

You will develop an integrated marketing communication plan using current industry practices. Applying the theory and rationale to creating advertisements and developing media plans are components of this course. These essential components will be complemented by an illustration of the strategic use of sales promotion, personal selling, public relations, and event marketing/sponsorship.

### MKTG 223 Marketing Research
- **Credit Units:** 5.0  
- **Course Hours:** 80.0  
- **Equivalent Course(s):** MKTG 223CE

You will explore the importance of marketing research in decision making. You will discover and apply the marketing research process to develop a basic marketing research report. Topics of study include: research design, qualitative and quantitative data gathering methods, sampling techniques, and data analysis using statistical software.
### MKTG 224 Creative Design

**Credit Units:** 5.0  **Course Hours:** 80.0  
You will develop an understanding of the fundamental principles of design, as well as learn to appreciate the role it has in the development and delivery of an organization’s communications and marketing strategy. You will apply your skills in design utilizing visual imagery, typography and graphic elements, learn techniques to write and create effective communications messages, and apply these competencies across various digital and print media. You will produce a portfolio showcasing your skills learned throughout the course.

### MKTG 225 Public Relations

**Credit Units:** 5.0  **Course Hours:** 80.0  
You will learn basic public relations theory and practice including public relations writing, media relations, and crisis management. You will gain knowledge in the nature of publicity and learn how to get favorable public attention using news releases, interviews, events, and press conferences. You will also study the role of the CMA (Canadian Marketing Association) in providing ethical guidelines for professional conduct, and learn about the responsibilities of working within the marketing field.

### MKTG 226 Strategic Marketing

**Credit Units:** 5.0  **Course Hours:** 80.0  
**Prerequisite(s):** MKTG 120  
You will use a decision-making approach to apply marketing concepts. You will develop the skills and knowledge to engage clients and marketing professionals in strategic discussions and to make presentations. Your studies will include opportunities to develop the skills and knowledge to make the decisions necessary for marketing strategy formulation, implementation, and control.

### MKTG 227 Digital Media

**Credit Units:** 4.0  **Course Hours:** 64.0  
**Equivalent Course(s):** ADMN 203, MKTG 227CE  
You will explore the role of digital media in the marketing and promotion strategies of a business. Your studies will examine the relationship between market research, audience identification and digital marketing strategy. You will create business content designed to create interest and engagement in a business. You will learn how to establish metrics and build assessment tools to measure the effectiveness of your digital media marketing strategy.

### MKTG 228 Project Management

**Credit Units:** 4.0  **Course Hours:** 64.0  
**Equivalent Course(s):** ECON 222, MKTG 228CE  
You will develop the skills and techniques required to make an effective contribution to, and have an immediate impact on, successful projects. You will develop the knowledge required to initiate, plan, execute, control and close projects. You will gain a working knowledge of MS Project software and be able to use it to schedule, budget and control projects.

### MKTG 270 Sales and Event Management

**Credit Units:** 4.0  **Course Hours:** 60.0  
You will learn the principles of planning, organizing, controlling and executing catered functions as well as the criteria for selling to the events market. You will learn how to write convention proposals and train on current industry software, Delphi Sales and Catering Manager.

### MKTG 282 Sales & Convention Management

**Credit Units:** 3.0  **Course Hours:** 38.0  
The course covers the criteria for selling to the convention market. You will learn how to write convention proposals, bid letters and letters of agreement.

### MKTG 283 Marketing

**Credit Units:** 3.0  **Course Hours:** 45.0  
You will focus on marketing as a means of generating and maintaining satisfied customers. You will complete assignments in marketing research, social media and desktop publishing to complement the theory component. Healthcare marketing will be assessed.

### MKTG 284 Hospitality Marketing

**Credit Units:** 4.0  **Course Hours:** 60.0  
You will explore the fundamental principles of marketing as they relate to the tourism and hospitality industry. You will learn how sound marketing management can improve profitability and improve operational effectiveness and efficiency.
MKTG 300 Marketing  
Credit Units: 3.0  
Course Hours: 45.0  
You will discover the dynamic field of marketing. You will explore what marketing is, how it works, and the effect it can have on consumers and on society. You will have a strong sense of how to market yourself, your skills, your ideas, as well as more traditional products and services. Marketing concepts you will learn include: the strategic marketing planning process, segmentation, positioning, forecasting, consumer behaviour, and the marketing mix.

MKTG 600 Marketing Management  
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): MGMT 132  
You will gain an appreciation of the role of marketing management and marketing strategy to the survival and success of the organization within a competitive and dynamic business environment. You will create and present a comprehensive marketing plan for the marketing activities within a particular industry.

MKTG 601 Marketing for Supply Chain Management  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): MGMT 605  
You will examine basics of marketing: marketing concepts, and the identification of new marketing opportunities. You will focus on concepts pertinent to supply chain management such as the cross-functional relationship between customers and the supply chain. You will develop critical marketing skills such as market segmentation, positioning strategies, marketing plan development and communication strategies. You will learn to use environmental scans and technology in the development of your strategic marketing plan.

MRNE 114 Outboard Fuel Systems  
Credit Units: 4.0  
Course Hours: 60.0  
You will focus on servicing fuel pumps, recirculation systems and oil injection systems. You will study carburetion theory and learn how to service outboard carburetors. You will learn the theory behind today’s electronic fuel injection systems. You will also apply this knowledge by participating in a demonstration of software diagnostic techniques.

MRNE 115 Starting, Charging and Ignition Systems  
Credit Units: 3.0  
Course Hours: 48.0  
Equivalent Course(s): MRNE 200  
You will study outboard electrical systems, including the ignition, starting and charging of systems. You will explore the theory and troubleshooting techniques of a typical electronic engine management system.

MRNE 116 Remote Controls  
Credit Units: 1.0  
Course Hours: 18.0  
You will learn how to service the remote controls and steering systems used with outboard engines.

MRNE 117 Marine Two-Stroke Engines  
Credit Units: 3.0  
Course Hours: 50.0  
Equivalent Course(s): MRNE 205  
You will focus on the theory of two-stroke outboard engines. You will learn the procedures involved in overhauling these engines.

MRNE 118 Marine Four-Stroke Engines  
Credit Units: 3.0  
Course Hours: 50.0  
Equivalent Course(s): MRNE 206  
You will learn the theory of operation of four-stroke outboard engines and the practical application of service and tune-up procedures. You will also be given the opportunity to research future trends that impact the marine industry with regard to marketing and new technologies.

MRNE 119 Outboard Gear Cases and Cooling Systems  
Credit Units: 4.0  
Course Hours: 56.0  
You will study the theory of operation of outboard cooling systems, including water pumps, thermostats and water flow, and acquire the practical skills required to service these cooling systems. You will study the operation of the lower gear case used on outboard engines and learn how to service the gear sets, shifting mechanisms and pressure testing.

MRNE 120 Power Boat and Trailer Rigging  
Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s): MRNE 210  
You will learn the techniques for rigging boats and setting-up and servicing trailers.
# Course Descriptions

## MSON 100 Mortars
Credit Units: 4.0    Course Hours: 60.0
You will focus on the development of mortar, its properties, characteristics, uses, and the procedure for, mixing and handling. You will learn how to identify building code requirements. The course will include mortar spreading techniques and the types of mortar joints finishes.

## MSON 101 Miscellaneous Masonry
Credit Units: 4.0    Course Hours: 60.0
Corequisite(s):    MSON 100
You will explore various masonry topics such as piling, pilasters, architectural trends, maintenance and cleaning, insulation and vapor barriers. The proper design and material usage will be discussed. You will also study the various styles of masonry anchors.

## MSON 103 Site Layout
Credit Units: 2.0    Course Hours: 30.0
Corequisite(s):    SAFE 107, SCAF 103
You will focus on proper set-up techniques and organizing the job site through using principles of safety and efficiency.

## MSSG 200 Cosmetic Massage
Credit Units: 1.0    Course Hours: 15.0
Prerequisite(s):    SANT 105
The course will explore the many varieties of massage techniques, as well as safety practices and proper protocols in doing a cosmetic body massage. You will learn how to apply massage services that meet high professional standards and the client's expectations.

## MTER 100 Medical Terminology
Credit Units: 1.0    Course Hours: 15.0
Equivalent Course(s):    MTER 180
You will learn to use the prefixes, suffixes and combining forms from which medical terms are derived. You will also learn to use medical abbreviations.

## MTER 180 Medical Terminology
Credit Units: 1.0    Course Hours: 10.0
Equivalent Course(s):    MED 161, MTER 180CE
You will learn to use the prefixes, suffixes and combining forms from which medical terms are derived. You will also learn medical abbreviations.

## MTER 200 Medical Terminology
Credit Units: 4.0    Course Hours: 60.0
Equivalent Course(s):    MED 161
You will learn the construction of medical words, including root words, combining forms, prefixes, and suffixes, as they relate to body systems and body organization. You will also learn medical abbreviations and symbols.

## MULT 114 Web Authoring 3-Javascript
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s):    MULT 124
Equivalent Course(s):    MULT 114CE
You will learn the basics of programming in JavaScript and apply those skills to enhance Web pages. Your studies will include the examination and use of the programming model, programming concepts, events and event handlers, and variable methods. You will also study and use the Document Object Model (DOM) and recognize browser and platform compatibility issues related to the use of JavaScript.

## MULT 120 Web Authoring 1-Basic HTML/CSS
Credit Units: 4.0    Course Hours: 60.0
Equivalent Course(s):    GRPH 260, MULT 120CE
You will learn the basics of web site authoring and publishing. You will create a web site using basic Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS). You will use various software to create and manage a website. You will publish a website to your own domain service.

## MULT 122 Introduction to Animation
Credit Units: 3.0    Course Hours: 45.0
Equivalent Course(s):    MUL 122CE
You will learn the theory and fundamentals of traditional animation. Your studies will place a focus on learning the basic principles of animation. Your studies will place a focus on learning the basic principles of animation. You will develop the skills and knowledge to create an animated short.

## MULT 123 3D Modeling
Credit Units: 4.0    Course Hours: 60.0
You will learn the basics of 3D modeling. Your studies will include 3D surfacing, mapping, and lighting techniques. You will develop the skills to produce an animated 3D animated scene. You will create an object for 3D printing.

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MULT 124 Web Authoring 2-Intermediate HTML/CSS-CMS
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): MULT 120
Equivalent Course(s): MULT 124CE
You will use intermediate HTML and CSS to design and create websites with a variety of layouts. You will incorporate interactivity along with audio and video into HTML pages. You will learn to install, configure, use, and manage Content Management Systems (CMS). You will develop the skills to apply themes and use modules.

MULT 125 Interactive Authoring 1
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s): MULT 120, MULT 124
Equivalent Course(s): MULT 125CE
You will learn how to use the basic components of interactive authoring software. Using a timeline, drawing tools, animation and imported graphics, you will develop the skills and knowledge to create and present an interactive project.

MULT 126 Web Development Essentials
Credit Units: 3.0    Course Hours: 45.0
Your studies will prepare you to set up, configure and administer various types of servers for the Web, develop data integrity and backup plans, and appreciate security considerations for Web sites. You will research and develop an e-commerce implementation plan.

MULT 127 Intermediate Flash
Credit Units: 4.0    Course Hours: 60.0
Building on your existing Flash knowledge and skills, you will learn advanced Flash features (including ActionScript programming to increase interactivity and to develop non-linear presentations).

MULT 128 Web Authoring 4-Responsive Web Development
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s): MULT 114*
Equivalent Course(s): MULT 128CE
You will continue to expand your web authoring skills as you learn to build responsive, mobile-first sites. You will acquire skills in client side development using frameworks and libraries.

MULT 129 Treatments, Storyboards and Scripts
Credit Units: 1.0    Course Hours: 12.0
You will learn the skills required to efficiently plan production by writing treatments, storyboards and scripts.

MULT 130 Introduction to New Media
Credit Units: 1.0    Course Hours: 15.0
Equivalent Course(s): MULT 116, MULT 130CE
You will learn what new media are, their history, current trends and future possibilities.

MULT 131 Presentations
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): GRPH 102*, PHOT 100*
You will focus on using presentation software to enhance information presented in formal and informal settings. Your studies will help you acquire techniques to incorporate communication technology into presentations and develop more creative approaches to presenting information.

MULT 132 Electronic Publishing
Credit Units: 3.0    Course Hours: 50.0
Prerequisite(s): GRPH 102, GRPH 103
You will become familiar with desktop publishing software. After becoming familiar with the software, you will produce a variety of documents using desktop publishing techniques.

MULT 133 Project Development
Credit Units: 2.0    Course Hours: 24.0
Equivalent Course(s): MULT 133CE
You will practice the practical and theoretical skills needed to develop and design an interactive project.

MULT 201 Video Production Using Still Images
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): AUDI 200, VDEO 200, VDEO 203
You will learn the unique production techniques for bringing "life" to still images in a video production. These techniques are often used when a source video is not available or when still imagery better suits the communication of the message. These effective techniques are used in photo montages and presentations such as documentary, memorial and wedding programs in order to make the viewing experience more interesting and engaging.
MULT 202 Motion Graphics
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): VDEO 202, VDEO 203
Equivalent Course(s): MULT 202CE
You will learn to use motion graphics software. You will create various compositions for use in digital signage. You will use compositing effects to enhance the visual impact of video projects.

MULT 203 Introduction to DVD Authoring
Credit Units: 2.0    Course Hours: 24.0
Equivalent Course(s): MULT 203CE
You will learn the basics of preparing a DVD. You will study the DVD format and the processes involved in creating a completed DVD from encoding the source material through to burning the final disc.

MULT 204 Interactive Authoring 2
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): MULT 125, MULT 114
Equivalent Course(s): MULT 204CE
You will create an interactive application using basic toolsets, custom media and scripting. The final project will be an interactive website, game, or interactive educational learning module.

MULT 205 Customizing Content Management Systems
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): DSGN 103, MULT 128
Equivalent Course(s): MULT 205CE
You will learn about Content Management Systems (CMS) for managing large, interactive web sites. You will select an appropriate CMS and modify the content and interface to build custom projects.

MULT 206 Advanced DVD Authoring
Credit Units: 2.0    Course Hours: 24.0
Prerequisite(s): MULT 203
Equivalent Course(s): MULT 206CE
You will learn the additional skills and techniques needed to create advanced DVDs. Your studies will include advanced menu systems, multiple angle (video) tracks and multiple audio tracks.

MULT 207 Alternate Delivery Platforms
Credit Units: 2.0    Course Hours: 27.0
Equivalent Course(s): MULT 207CE
You will learn how to develop content deliverable via alternate delivery platforms (such as cell phones and personal digital assistants - PDAs). You will research emerging technologies, discuss your findings and create content suitable for delivery over alternate platforms.

MULT 208 Emerging Interactive Technologies
Credit Units: 2.0    Course Hours: 30.0
Equivalent Course(s): MULT 208CE
As a new media developer, you will research and discuss emerging technologies.

MULT 209 Introduction to Learning Management Systems
Credit Units: 1.0    Course Hours: 15.0
Prerequisite(s): MULT 205
Equivalent Course(s): MULT 209CE
You will be introduced to the learning management systems used to manage the delivery of Web-based training material. You will become familiar with the various modules and learn how to prepare, upload and manage the content.

MULT 210 Introduction to Portable Document Format (pdf)
Credit Units: 2.0    Course Hours: 24.0
Equivalent Course(s): MULT 210CE
You will learn how to create portable document format (pdf) files. You will create pdf files, edit existing pdf files, add hyperlinks, create forms and adjust compression options.

MULT 211 Dynamic Flash Applications
Credit Units: 2.0    Course Hours: 25.0
Prerequisite(s): COMP 205
Equivalent Course(s): MULT 211CE
Using Flash, you will learn how to create effective and media-rich user interfaces for sophisticated Web-based applications. You will also learn how to retrieve, display, collect and submit data. You will demonstrate your skills by completing a project.
MUNI 220 Municipal Infrastructure
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s): HYDR 221, COAP 108
You will become familiar with planning and designing municipal infrastructures. This includes roadway and lot layout, servicing developed areas with storm water and sanitary sewers, and potable water delivery.

MVNT 200 Mine Ventilation
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): MINE 107
Corequisite(s): FMEC 200
You will learn the basic theory and concepts of mine ventilation, mine environment and ventilation controls. You will apply ventilation formulas given specific factors. Your studies will include how to deal with confined space safety considerations.

MVNT 201 Mine Ventilation Planning and Design
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): FMEC 200, MVNT 200
You will apply the theories and concepts of mine ventilation, mine environment and ventilation controls to mine ventilation problem solving and design. You will apply mine ventilation simulation software to find mine ventilation solutions.

NAIL 100 Introduction to Manicures and Pedicures
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): SANT 108*
Equivalent Course(s): NAIL 101
You will develop an understanding of the anatomy of hands and feet. Your studies will help you acquire an understanding of hand and nail care, diseases and disorders. You will practice giving manicures and pedicures.

NAIL 101 Manicures and Pedicures
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): SANT 010* or SANT 110*
You will develop an understanding of the anatomy of hands and feet, hand and nail care, disease and disorders. Your studies will help you learn specialized techniques and treatments to offer to your manicure and pedicure clients. You will practice manicures, pedicures and treatments.

NAIL 102 Indigenous Studies
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): NAST 102CE
You will receive an introduction to First Nations and Metis Nations peoples in Canada. You will examine historical and current issues that affect Aboriginal peoples. You will explore racism and will develop an understanding of how self-awareness impacts helping relationships.

NAST 100 Aboriginal Cultural Awareness
Credit Units: 2.0  Course Hours: 30.0
You will gain an understanding of the diversity and richness of First Nations and Métis cultures, histories and current issues.

NAST 103 Introduction to Indigenous Studies
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s): NAST 103CE
You will receive an introduction to the Indigenous cultural groups within Saskatchewan. You will learn about the colonization of Indigenous peoples by the Canadian state. Your studies will help you discuss current issues and explore possible solutions.

NAST 104 Aboriginal Studies
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): NAST 120CE, YCW 189
You will explore elements of First Nations culture with a view to understanding both historical elements and contemporary issues in Canada. You will also examine information on the residential school system, the struggle of the Metis for legal and cultural recognition and Aboriginal cultural practices.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAST 290</td>
<td>Indigenous Studies 1</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will examine historical events that have impacted First Nations, Inuit and Metis people in Canada with a goal to understanding contemporary issues. You will explore the role Indigenous people have played in the development of Canadian society, including their struggles to preserve their cultures and inherent rights.</td>
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<tr>
<td>NAST 291</td>
<td>Indigenous Studies 2</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will focus on the contemporary issues impacting First Nations, Inuit and Metis people in Canada. You will explore the role Aboriginal peoples have played in the securing of Aboriginal rights and their ongoing efforts of decolonization.</td>
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<tr>
<td>NGTN 600</td>
<td>Negotiation Skills</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will develop negotiation skills needed for interactions with suppliers, customers, and multiparty arrangements in the supply chain industry. You will learn about stages of negotiations, sources of influence, and how to prepare and conduct the negotiations. In addition you will become familiar with various factors that impact negotiations including emotional and practical applications.</td>
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<tr>
<td>NRSG 100</td>
<td>Promotion of Psychiatric Nursing Praxis</td>
<td>3.0</td>
<td>39.0</td>
</tr>
<tr>
<td></td>
<td>You will be introduced to concepts of self that are central to the profession of psychiatric nursing. You will use critical reflection and synthesis to focus on developing the skills and attitudes expected of effective registered psychiatric nurses.</td>
<td></td>
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</tr>
<tr>
<td>NRSG 101</td>
<td>Introduction to Psychiatric Nursing Concepts</td>
<td>3.0</td>
<td>52.0</td>
</tr>
<tr>
<td></td>
<td>You will be introduced to the Psychiatric Nursing curriculum framework, professional regulation, leadership concepts, and writing and research process. You will examine the concepts of mental health promotion and primary health care. You will review past, present and future influences that contribute to the psychiatric nursing profession.</td>
<td></td>
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</tr>
<tr>
<td>NRSG 102</td>
<td>Foundations of Psychiatric Nursing Practice</td>
<td>6.0</td>
<td>91.0</td>
</tr>
<tr>
<td></td>
<td>Equivalent Course(s): NEPS 115, NURS 238</td>
<td></td>
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<tr>
<td></td>
<td>You will focus on the theory of wholistic psychiatric nursing care related to specific health challenges of the older adult. You will be introduced to concepts of mental health promotion, illness prevention, safety, clinical decision-making, documentation and self-care. You will have an opportunity to apply fundamental psychiatric nursing skills in a practice setting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRSG 103</td>
<td>Nursing in Canada</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will study on nursing in Canada. You will learn about the healthcare system and describe the nursing profession in Canada. You will be able to identify the roles and responsibilities of a registered nurse. You will be able to describe patient-centred and collaborative care. You will learn about the Canadian Nursing Association’s Code of Ethics and identify ethical and legal issues in nursing. You will apply theory related to critical thinking, decision making, the nursing process, and teaching and learning. You will explore the role of the nurse as a leader and describe emerging trends in nursing in Canada.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRSG 104</td>
<td>Health Assessment</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will study on how to conduct comprehensive and systematic client health/physical assessment. You will learn about special considerations in the assessment of clients. You will integrate the concepts pertaining to a comprehensive health/physical assessment and demonstrate a modified head to toe assessment applicable to any clinical setting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRSG 120</td>
<td>Fundamentals of Canadian Nursing Communication</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>You will study communication skills appropriate to Canadian nursing practice within an interprofessional healthcare environment. You will apply the concepts of therapeutic communication and health teaching to nursing practice in dealing with patients and/or their families. You will engage in interactive online activities to apply theory to simulated scenarios.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NRSG 200 Health Assessment 1
Credit Units: 3.0    Course Hours: 45.0
Equivalent Course(s): NRSG 200CE
Health Assessment 1 is the first of two courses that focus on the theory related to physical assessment. You will study interviewing techniques, history taking and a head-to-toe physical assessment. You will learn about assessment of the integumentary system, head and neck, breasts and axillae, lungs and thorax, and cardiovascular, peripheral vascular and lymphatic systems.

NRSG 201 Health Assessment 2
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): NRSG 200*
Equivalent Course(s): NRSG 201CE
Building on the theory you learned in NRSG 200 (Health Assessment 1), you will continue to study the assessment of body systems. The course content includes assessment of the abdomen, musculoskeletal system, neurological system, male and female genitalia and rectum, adapting techniques of health assessment to other age groups and psychological and sociocultural assessment.

NRSG 202 Issues and Trends in Professional Nursing 1
Credit Units: 2.0    Course Hours: 30.0
Equivalent Course(s): NRSG 202CE
You will be reintroduced to the theory related to professional nursing, including the evolution of nursing, teaching and learning, critical thinking, decision-making and the nursing process, and reporting and recording in nursing. This is the first of two courses where you will focus on issues and trends in professional nursing.

NRSG 203 Issues and Trends in Professional Nursing 2
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): COMP 170*
Equivalent Course(s): NRSG 203CE
You will examine how nursing has changed since you last worked as a nurse. You will learn about new roles nurses have acquired, the role nurses play in the research process, the use of research in clinical decision making, and the importance of continuing professional development in nursing. You will increase your knowledge of legal and ethical issues facing nurses today. You will review communications techniques and learn about conflict management and resolution. You will also increase your knowledge of leadership and inter-professional practice and the systems approach to patient safety.

NRSG 204 Perspectives in Community Nursing
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): NRSG 201*, NRSG 202*
Equivalent Course(s): NRSG 204CE
You will be introduced to the role nurses have in primary health care. You will learn how nurses influence the determinants of health to improve the health of Canadians. You will acquire knowledge about establishing the culture of patient safety. You will be reintroduced to infection control and how communicable diseases such as SARS and AIDS have impacted this area. You will acquire knowledge about how you can be sensitive to the diversity of your clients and learn more about all cultures including First Nations cultures and their traditional health care practices. You will also explore basic concepts in mental health nursing.

NRSG 205 Mental Health Nursing
Credit Units: 1.0    Course Hours: 15.0
Prerequisite(s): NRSG 203*, NRSG 204*, PHAR 200*
Equivalent Course(s): NRSG 205CE
You will apply the nursing process to the care of clients and their families who are experiencing a variety of mental health alterations in acute and community care. You will apply ethical and legal concepts in mapping safe and effective mental health nursing care.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRSG 206</td>
<td>Nursing Re-entry Lab 1</td>
<td>1.0</td>
<td>15.0</td>
<td>NRSG 204</td>
<td>NRSG 206CE</td>
<td>You will review and practice basic nursing skills (including body mechanics, ambulation, transfers and lifts). You will also review and practice skills related to medical asepsis (including hand washing and isolation techniques). You will also have an opportunity to apply the theory you learned in NRSG 200 (Health Assessment 1) and NRSG 201 (Health Assessment 2) related to general physical assessment techniques and the physical assessment for designated body systems.</td>
</tr>
<tr>
<td>NRSG 207</td>
<td>Nursing the Childbearing Family</td>
<td>2.0</td>
<td>30.0</td>
<td>PHAR 200*</td>
<td>NRSG 207CE</td>
<td>You will examine the various aspects of pregnancy and the newborn. You will examine the concept of family and review reproductive life planning.</td>
</tr>
<tr>
<td>NRSG 208</td>
<td>Child Health Nursing</td>
<td>4.0</td>
<td>60.0</td>
<td>PHAR 200*</td>
<td>NRSG 208CE</td>
<td>You will explore the nursing care required to support infants, children and adolescents (and their families) experiencing common health alterations. You will review the growth and development of children from birth to 19 years. You will learn principles of child health nursing with the client as a partner to enhance patient safety.</td>
</tr>
<tr>
<td>NRSG 209</td>
<td>Adult Health Nursing 1</td>
<td>4.0</td>
<td>60.0</td>
<td>NRSG 205*</td>
<td>NRSG 209CE</td>
<td>Your studies will focus on the concepts of growth and development of the adult from 20 to 64 years, inflammation and infection, the immune response and cell aberration. The course content includes fluid and electrolyte and acid/base balances and imbalances. You will examine the nursing care required to support adult clients (and their families) undergoing surgery and experiencing health alterations related to fluid and gas transport.</td>
</tr>
<tr>
<td>NRSG 210</td>
<td>Adult Health Nursing 2</td>
<td>3.0</td>
<td>45.0</td>
<td>CLIN 200*</td>
<td>NRSG 210CE</td>
<td>You will apply the knowledge you gained in NRSG 209 (Adult Health Nursing 1) as you explore the nursing care required to support adult clients (and their families) experiencing health alterations related to metabolic functioning, digestion and elimination, cell aberration, reproduction and sexuality, defense and protection.</td>
</tr>
<tr>
<td>NRSG 211</td>
<td>Nursing the Older Adult</td>
<td>3.0</td>
<td>45.0</td>
<td>NRSG 210*</td>
<td>NRSG 211CE</td>
<td>You will explore the nursing care required to support older adults (and their families) experiencing common health alterations and loss, grief and/or death. You will review the growth and development of the older adult. You will explore issues related to older adults (including the healthy adaptive older person, the effects of ageism, elder abuse and neglect, the caregiver role and institutionalization). You will examine drug-related issues affecting older adults.</td>
</tr>
<tr>
<td>NRSG 212</td>
<td>Nursing Re-entry Lab 2</td>
<td>1.0</td>
<td>15.0</td>
<td>CLIN 200*</td>
<td>NRSG 212CE</td>
<td>You will review and practice nursing skills related to surgical asepsis, oxygenation, digestion and elimination, and medication administration.</td>
</tr>
<tr>
<td>NRSG 219</td>
<td>Nursing in Canada 1</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>NRSG 219CE</td>
<td>Your studies will focus on nursing in Canada. You will learn about the role of the nurse in primary health care and how nurses can influence the determinants of health to improve the health of Canadians. You will examine ways in which nurses can be sensitive to the diversity of their clients and how they can support First Nations communities and their traditional health care practices. You will be introduced to the key concepts associated with a systems approach to client safety.</td>
</tr>
</tbody>
</table>

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NRSG 220 Nursing in Canada 2
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  NRSG 220CE
You will apply theory related to critical thinking, decision making and the nursing process. You will demonstrate reporting and recording in nursing, and teaching and learning. You will examine and solve legal and ethical issues in nursing. This is the second of two courses that focus on nursing in Canada.

NRSG 221 Common Health Challenges
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PHAR 202
Equivalent Course(s):  NRSG 221CE
You will focus on common health challenges that Canadians experience and the nursing care required to support clients (and their families) experiencing those health challenges.

NRSG 222 Caring for the Elderly Client
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  NRSG 222CE
You will review the growth and development of the older adult. You will explore issues related to older adults (including elder abuse and neglect, the caregiver role and institutionalization). You will examine drug-related issues affecting older adults. You will explore the nursing care required to support older adults (and their families) experiencing elder abuse and/or neglect, loss, grief and/or death.

NRSG 223 Clinical Skills Lab
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s):  NRSG 104, NRSG 120, PHAR 202
Equivalent Course(s):  NRSG 223CE
The course will help you adapt your nursing skills to the techniques used in Canada. You will review and practice basic nursing skills (including general physical assessment techniques).

NRSG 223 Interpersonal Partnerships
Credit Units: 3.0  Course Hours: 52.0
Prerequisite(s):  NRSG 100, NRSG 101, NRSG 102, (NEPS 118 or APHY 162), (NEPS 212 or MICR 159, MICR 161)
You will acquire the knowledge to develop the skills needed to establish therapeutic relationships and to conduct effective individual interviews. You will have an opportunity to practice communication skills, essential interpersonal elements, critical thinking and critical reflection in a practice setting.

NRSG 224 Physical Assessment
Credit Units: 3.0  Course Hours: 39.0
Prerequisite(s):  NRSG 100, NRSG 101, NRSG 102, (NEPS 118 or APHY 162), (NEPS 212 or MICR 159, MICR 161)
Equivalent Course(s):  NEPS 221
You will establish a foundation for the development of physical health assessment skills. You will be introduced to theory related to psychological, sociocultural and spiritual assessment. You will learn to adapt engagement skills, interviewing techniques, history taking and head-to-toe physical assessment to special populations. You will have an opportunity to practice comprehensive physical health assessments.

NRSG 235 Aboriginal Studies 1
Credit Units: 3.0  Course Hours: 39.0
Prerequisite(s):  NRSG 100, NRSG 101, NRSG 102, (NEPS 118 or APHY 162), (NEPS 212 or MICR 159, MICR 161)
Equivalent Course(s):  SOCI 200, SOCI 261
You will be introduced to Aboriginal history and culture. You will explore the origins of Aboriginal populations, historical perspectives, Indian treaties, Indian policy, and the impact of these developments. Upon completion of this course, you will have gained an understanding of the Aboriginal culture.

NRSG 236 Introduction to Pharmacology
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s):  NRSG 233, NRSG 234, NRSG 235, (NEPS 119 or APHY 262), (NEPS 216 or PSYC 163)
Equivalent Course(s):  NEPS 222, PHAR 160
You will develop knowledge of medications, the medication research process and patient safety. You will examine the history and future of psychopharmacology.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRSG 237</td>
<td>Health and Healthcare Concepts</td>
<td>3.0</td>
<td>48.0</td>
<td>NRSG 233, NRSG 234, NRSG 235, (NEPS 119 or APHY 262), (NEPS 216 or PSYC 163)</td>
<td>NEPS 291, NURS 293</td>
<td>You will be introduced to selected physical illnesses and psychiatric disorders of the older adult, concepts of psychiatric co-morbidity with medical diagnosis and selected interpersonal interventions. You will have the opportunity to explore concepts of wholistic psychiatric nursing care related to selected health challenges.</td>
</tr>
<tr>
<td>NRSG 238</td>
<td>Individual Partnerships</td>
<td>3.0</td>
<td>39.0</td>
<td>CLIN 213</td>
<td></td>
<td>Your studies will focus on concepts of effective professional helping with individuals. You will be introduced to evidence-based psychological interventions, selected theories of counseling, several counseling approaches and strategies. You will have opportunity to apply this theory in a practice setting.</td>
</tr>
<tr>
<td>NRSG 239</td>
<td>Addictions</td>
<td>3.0</td>
<td>45.0</td>
<td>CLIN 213</td>
<td></td>
<td>You will learn about selected addiction assessment tools, types of addictions, psychiatric nursing interventions and concepts in health promotion, prevention and harm reduction. You will examine theories and models including medical, disease and biopsychosocial and the various treatment options available.</td>
</tr>
<tr>
<td>NRSG 240</td>
<td>Psychotropic Pharmacology</td>
<td>3.0</td>
<td>45.0</td>
<td>CLIN 213</td>
<td></td>
<td>You will build on the basic concepts from the NRSG 236 (Introduction to Pharmacology) course. You will learn to assess pharmacotherapeutics and provide safe administration of psychotropic agents and psychiatric nursing interventions.</td>
</tr>
<tr>
<td>NRSG 241</td>
<td>Psychiatric Nursing Assessment, Responses and Interventions</td>
<td>5.0</td>
<td>69.0</td>
<td>CLIN 213</td>
<td></td>
<td>Your studies will focus on the assessment and continuum of client responses to mental illness and mental health assessment. You will be introduced to standard tests, rating scales for mental health assessment, concepts of relapse, recovery and co-morbidity. You will have the opportunity to design interventions for individuals experiencing psychiatric disorders.</td>
</tr>
<tr>
<td>NRSG 242</td>
<td>Group Partnerships</td>
<td>3.0</td>
<td>38.0</td>
<td>CLIN 214</td>
<td></td>
<td>You will be introduced to the foundations of group work. Your studies will focus on group theory, group process and mental health promotion. You will have the opportunity to participate in groups and develop practical skills in group facilitation.</td>
</tr>
<tr>
<td>NRSG 243</td>
<td>Children and Adolescents</td>
<td>3.0</td>
<td>38.0</td>
<td>CLIN 214</td>
<td></td>
<td>You will be introduced to selected theory of common psychiatric, developmental and social disorders of children and adolescents. You will be provided the opportunity to explore selected models of assessment and psychiatric nursing interventions.</td>
</tr>
<tr>
<td>NRSG 244</td>
<td>General Pharmacology</td>
<td>2.0</td>
<td>37.0</td>
<td>CLIN 214</td>
<td>NEPS 223, PHAR 264</td>
<td>You will build upon the pharmacology concepts from Term 3 and Term 4 of the Psychiatric Nursing program. You will be provided with further opportunity to explore and assess selected pharmacotherapeutics and other related nursing interventions.</td>
</tr>
<tr>
<td>NRSG 245</td>
<td>Health and Mental Health Literacy</td>
<td>2.0</td>
<td>26.0</td>
<td>CLIN 214</td>
<td></td>
<td>You will be introduced to concepts of teaching and learning. You will examine a literacy model and develop strategies to support mental health literacy across selected populations.</td>
</tr>
</tbody>
</table>
NRSG 246 Family Partnerships
Credit Units: 3.0  Course Hours: 38.0
Prerequisite(s):  CLIN 214
You will learn about selected family theory, selected family assessment tools and psychiatric nursing interventions that will prepare you to work with individuals within diverse families. You will learn about various forms of family violence and explore the issues and challenges of families. You will develop strategies to improve an individual’s functioning within the context of a family and have the opportunity for experiential learning through practice working with families.

NRSG 247 Forensics
Credit Units: 3.0  Course Hours: 38.0
Prerequisite(s):  CLIN 215
You will gain an understanding of the role of the psychiatric nurse in secure environments. You will examine professionalism, prison culture and subculture, psychiatric nursing assessment and protocols for interventions. You will learn about selected theory of care, custody and control in forensic settings.

NRSG 248 Community Partnerships
Credit Units: 3.0  Course Hours: 39.0
Prerequisite(s):  CLIN 215
You will learn about selected community theory and community assessment tools as well as psychiatric nursing roles and interventions that will prepare you to work with diverse communities. You will develop strategies to improve community function and have the opportunity for experiential learning through practice working with individuals within the context of communities.

NRSG 249 Professional Development
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s):  CLIN 216
You will examine the concepts of interdisciplinary practice, leadership, professional practice transition issues and professional self-care. You will be introduced to the theory of portfolio development and be afforded the opportunity to create an E-Portfolio.

NRSG 250 E-mentoring
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s):  CLIN 216
You will be introduced to mentorship and have the opportunity to collaboratively partner with a Registered Psychiatric Nurse (RPN) mentor. You will use enhanced technology to reflect upon and document your mentorship experience.

NRSG 252 Patient Safety
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  NRSG 252CE
You will study the systems approach to patient safety related to medication safety, interdisciplinary team relationships and best nursing practices. You will study national and provincial organizations designed to facilitate the Canadian patient safety agenda. You will examine a regional risk management or quality improvement project focused on advancing patient safety.

NRSG 253 Community Nursing
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  NRSG 253CE
You will focus your studies on concepts that relate to community nursing. You will review the principles of primary health care and explore emerging community health trends in Saskatchewan. In addition, you will discuss concepts, challenges and nursing care related to community mental health, public health and home care.

NRSG 254 IV Therapy/Blood and Blood Products Completer LPN
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s):  NRSG 254CE
You will develop knowledge and skill related to intravenous therapy, the initiation of intravenous lines, intravenous medications, the use of intermittent access devices, blood and blood products, and blood administration. Your studies will include self-study theory, review exercises, simulation practice labs, performance testing, and a written exam.

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<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRSG 255</td>
<td>Nasogastric Tube Insertion Completer for LPN</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td>You will develop knowledge and skill in assessing a client with a nasogastric tube. You will learn the skill of insertion, maintenance and removal of a nasogastric tube. Your studies will include self-study theory, review exercises, simulation practice lab and a written exam.</td>
</tr>
<tr>
<td>NRSG 256</td>
<td>Tracheostomy Care Completer for LPNs</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td>You will develop knowledge and skill regarding tracheostomy care. You will demonstrate the knowledge and ability to perform the required care of a person with a tracheostomy. Your studies will include self-study theory, review exercises, simulation practice lab and a written exam.</td>
</tr>
<tr>
<td>NRSG 257</td>
<td>Professional Practice and Communication</td>
<td>3</td>
<td>45.0</td>
<td>CLIN 105</td>
<td>You will examine the professional roles, ethical responsibilities and relationships of the practical nurse. You will explore nursing standards of practice, and concepts of professional development and reflective practice in the context of life-long learning. You will analyze conflict resolution in relation to personal and professional relationships, and examine nursing informatics and skills for professional employment.</td>
</tr>
<tr>
<td>NRSG 258</td>
<td>Addictions</td>
<td>3</td>
<td>45.0</td>
<td>CLIN 105, SOCI 160</td>
<td>You will examine substance abuse and the physiological and psychological risks related to addiction. You will describe the processes of withdrawal and detoxification and examine the principles and application of the harm reduction model. You will examine addictions treatment models and describe the challenges of addictions treatment for patients with concurrent disorders. You will apply critical thinking and inquiry throughout the nursing process in addictions care.</td>
</tr>
<tr>
<td>NRSG 281</td>
<td>Introduction to Critical Care Nursing within a Patient and Family-Centred Environment</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td>You will explore what it means to be a critical care nurse and to work with the critical care team. You will examine ethical, legal, cultural and professional issues within critical care. You will be introduced to the concepts of critical care nursing and aspects of the critical care environment with a lens of patient safety and patient-and-family-centred care.</td>
</tr>
<tr>
<td>NRSG 282</td>
<td>Anatomy &amp; Physiology Overview</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td>You will discuss anatomy and physiology with a critical care focus.</td>
</tr>
<tr>
<td>NRSG 283</td>
<td>Assessment and Diagnostics in Critical Care</td>
<td>2.0</td>
<td>35.0</td>
<td>NRSG 281, NRSG 282</td>
<td>You will examine arterial blood gasses, electrocardiogram monitoring and rhythm interpretation, and principles and concepts of hemodynamics. You will also examine assessment and diagnostics relating to the major body systems, transfer of patient care, and interdisciplinary rounds.</td>
</tr>
<tr>
<td>NRSG 284</td>
<td>Fundamental Concepts of Critical Care</td>
<td>3</td>
<td>40.0</td>
<td>NRSG 283</td>
<td>You will explain the management of the critical care patient, focusing on alterations in the body systems.</td>
</tr>
<tr>
<td>NRSG 285</td>
<td>Progressive Concepts of Critical Care</td>
<td>4.0</td>
<td>60.0</td>
<td>CLIN 233*</td>
<td>You will examine the management of critical care patients with multisystem dysfunction, incorporating a patient-and-family-centered focus. You will strengthen your abilities to judge the relevance of data, to integrate data and prioritize care, as well as evaluate the effectiveness of interventions.</td>
</tr>
</tbody>
</table>
# Course Descriptions

## NRSG 286 Impact, Challenges and Future of Critical Care
- **Credit Units:** 1.0  
- **Course Hours:** 15.0  
- **Prerequisite(s):** CLIN 234*

You will explore the impact of critical illness and how the critical care experience affects patients, families and yourself. You will discuss emerging concepts and ways to incorporate change and best practices within critical care.

## NRSG 287 Foundations of Occupational Health Nursing
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** NRSG 287CE

You will be introduced to the specialty role of the occupational health nurse. You will explore occupational health nursing as it relates to health in the workplace and inter-professional partnerships. You will examine legal and ethical considerations, occupational health and safety standards and frameworks for professional practice. You will develop a professional portfolio (as an assignment) related to occupational health nursing.

## NRSG 288 Health Assessment and Health Promotion in Occupational Health Nursing
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** NRSG 287  
- **Equivalent Course(s):** NRSG 288CE

You will relate the basic principles of health assessment including history taking and physical examination to occupational health nursing. You will relate the principles of health promotion to the occupational health environment. You will discuss specific alterations to health experienced in occupational health environments and the related health promotion.

## NRSG 289 Work Environments and Health 1
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** NRSG 287  
- **Equivalent Course(s):** NRSG 289CE

You will be introduced to the basic principles of industrial hygiene, sometimes referred to as occupational hygiene. You will prepare to anticipate, recognize, evaluate and control workplace hazards. You will focus on issues such as occupational contamination, chemical, biological, radiation, and electrical hazards. Your assessment and treatment skills will be enhanced for related occupational disease and injuries.

## NRSG 290 Work Environments and Health 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** NRSG 287, NRSG 289  
- **Equivalent Course(s):** NRSG 290CE

You will prepare to anticipate, recognize, evaluate, and mitigate the effects of noise, thermal, ergonomic, confined spaces, respiratory and fire hazards. You will have the opportunity to become familiar with sampling techniques and equipment and you will prepare to assess and treat workers who encounter these hazards.

## NRSG 291 Disability Case Management in Occupational Health Nursing
- **Credit Units:** 4.0  
- **Course Hours:** 64.0  
- **Prerequisite(s):** NRSG 287  
- **Equivalent Course(s):** NRSG 291CE

You will be introduced to disability management as an essential component of an occupational health and safety program. Disability management starts at the time of illness or injury and continues until the individual has recovered and returned to work. You will acquire knowledge and skills to develop, implement, and market a disability management program including Workers’ Compensation Board (WCB) claims information and return to work plans. You will focus on: worker assessment, accurate completion of reporting requirements and the creation of a disability management program.

## NRSG 292 Occupational Health Nursing Lab
- **Credit Units:** 1.0  
- **Course Hours:** 12.0  
- **Prerequisite(s):** NRSG 287, NRSG 288, NRSG 289, NRSG 290, NRSG 291, PROJ 205, SFTY 201, LEAD 202  
- **Equivalent Course(s):** NRSG 292CE

You will be provided with an opportunity to apply theoretical learnings, enhance nursing assessment techniques, and demonstrate clinical practice skills in a simulated setting as they relate to the role of the occupational health nurse. You will demonstrate critical thinking, problem solving and collaboration with other health team members.
NRSG 293 Fundamental Concepts of Emergency Nursing 1
Credit Units: 3.0  Course Hours: 45.0
You will explore emergency nursing as a specialty within the nursing profession. You will explore the unique nature of emergency nursing as primary episodic care of individuals across the lifespan who are experiencing health alterations. You will explore the concept of partnership with patient, families, and health care professionals in a fast paced, unpredictable, changing environment. You will explore how this unique environment affects your personal and professional self. You will discuss trends and issues that affect emergency care facilities, ultimately affecting patient care.

NRSG 294 Health Assessment and Diagnostics
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): NRSG 293
You will be introduced to the fundamental concepts of emergency nursing with an emphasis on pathophysiology, assessment and diagnostics by body system. You will explore the pathophysiology and management of pain in the context of all emergency care. You will consider special populations including pediatrics, geriatrics, bariatrics and obstetrics.

NRSG 295 Fundamental Concepts of Emergency Nursing 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): NRSG 294
You will examine the pathophysiology, management and exit care for common non-traumatic emergencies with special consideration for pediatrics, geriatrics, bariatrics and obstetrics. You will examine the pathophysiology, management and exit care of shock, systemic inflammatory response syndrome (SIRS) and multiple organ dysfunction syndrome (MODS). You will examine the pathophysiology, management and exit care for patients with communicable diseases in the context of emergency care. You will explore mental health, toxicological emergencies, environmental emergencies, palliative and end of life care in the emergency setting.

NRSG 296 Specialty Concepts of Emergency Nursing
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): NRSG 295
You will be introduced to advanced concepts of emergency nursing including the principles of triage, trauma care, care of the critically ill patient with advanced ventilation, hemodynamic monitoring and pharmaceutical agents. You will examine emergency preparedness and disaster planning in the context of emergency nursing. You will examine forensic nursing and concepts of sexual assault. You will examine the concepts of stabilization and transport, both within and outside the facility and their impact on emergency care.

NRSG 297 Emergency Nursing Lab
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): NRSG 296
You will demonstrate the theory and principles of emergency nursing in the performance of specialized nursing skills. Selected psychomotor skills will be demonstrated, and you will practice them in a laboratory setting using authentic emergency scenarios. You will be required to demonstrate cultural competence for all scenarios in the nursing lab.

NRSG 298 Foundations 4 - Community Health
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CLIN 240, NURS 294, NRSG 257, NRSG 258, SOCI 201
You will examine the role of the practical nurse in the context of patient care in the community with a focus on Indigenous health. You will examine the health promotion model and apply the determinants of health through experiential learning with community agencies. You will examine the leadership role of the practical nurse and prepare for the transition from the role of student to that of a graduate practitioner. You will examine interprofessional collaboration and apply critical thinking and inquiry in the context of community health nursing.

NRSG 299 Variations in Health 4
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): CLIN 240, NURS 294*, NRSG 257, NRSG 258, SOCI 201
You will examine the complex nursing care of patients with multi-system challenges and medical emergencies. You will plan ethical and competent holistic nursing care related to acute variations in health. You will apply concepts of safety critical thinking, and evidence informed practice in the delivery of patient care.
## NRSG CNPP Collaborative Nurse Practitioner Program

Credit Units: 0.0  Course Hours: n/a

Placeholder course for Collaborative Nurse Practitioner Program (CNPP) delivered in collaboration with the University of Regina, Faculty of Nursing and Faculty of graduate studies and research.

## NURS 010 Pain Management

Credit Units: 3.0  Course Hours: 45.0

This course begins with an overview of concepts related to pain including common misconceptions, epidemiology, and basic neurophysiology of pain. As nurses, you will learn how to work collaboratively with other health care professionals, accurately assess pain in your patients, as well as differentiate acute and chronic pain management techniques. Non-pharmacological pain management strategies are also discussed. You will examine pain management in pediatrics, older adults, and Indigenous populations. Opioid safety, the use of cannabis, and end of life pain management are some of the topics you will discuss in this course. You will complete this course armed with knowledge of effective evidence based nursing strategies for managing pain.

## NURS 117 Introduction to Human Body Completion

Credit Units: 4.0  Course Hours: 60.0

Prerequisite(s): (APHY 162, APHY 262) or (APHY 180, APHY 181, APHY 182)

This course builds on the content and concepts of APHY162 and 262 or APHY 180, 181, and 182 bridging to the level of the NEPS program course NURS 111 Introduction to the Structure and Function of the Human Body.

## NURS 163 Professional Practice and Communication 1

Credit Units: 3.0  Course Hours: 45.0

Equivalent Course(s): NEPS 112, NURS 112

You will explore the concept of self in relation to others. You will illustrate the role of caring in the practice of nursing and begin to develop reflective practice and critical thinking skills. You will demonstrate principles of verbal and non-verbal professional communication and explore the professional image of nursing.

## NURS 170 Health Assessment and Praxis 1 Completer

Credit Units: 3.0  Course Hours: 42.0

Prerequisite(s): APHY 162*, SOCI 160*

Equivalent Course(s): NURS 170CE

You will complete three learning outcomes and study the development of basic nursing competencies related to the nursing process, elimination needs, and vital signs. You will attend the mandatory simulation lab component where you will practice these skills. The lab will cover material from all three learning outcomes.

## NURS 171 Foundations 1 – Foundations of Health

Credit Units: 3.0  Course Hours: 45.0

Equivalent Course(s): NURS 173

You will discuss the metaparadigm of nursing in the context of nursing theories and philosophies. You will describe health determinants, primary health care and health care delivery in Canada. You will discuss law and ethics as they pertain to the nursing profession. You will describe critical thinking and apply key elements of patient safety. You will describe the concepts of culture and ethnicity with a focus on Indigenous and other predominant cultures in Saskatchewan.

## NURS 172 Variations in Health 1

Credit Units: 3.0  Course Hours: 45.0

Equivalent Course(s): NURS 174, NURS 174CE

You will begin to apply critical thinking skills, explaining the physiological and psychological health changes of the ageing adult. With guidance, you will apply the nursing process and describe evidence informed practice related to the ageing adult patient. You will describe specific health variations using a systems approach and recognize health promotion strategies in gerontological care.

## NURS 173 Health & Healing 1 Completer

Credit Units: 3.0  Course Hours: 45.0

Prerequisite(s): BIOL 100*

Equivalent Course(s): NURS 173CE

Within a caring holistic context, you will be introduced to the concept of health as it applies to you and others. You will explore the concept of primary health care. You will discuss health services delivery. You will examine determinants of health. Health promotion activities and community resources are explored.
### NURS 174 Health Challenges 1 Completer
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): BIOL 100*  
Equivalent Course(s): NURS 174CE  
Your studies will focus on the concepts of holistic nursing care related to specific challenges of the older adult. You will examine the concept of polypharmacy. You will discuss the introductory concepts of microbiology and selected specific microorganisms. You will learn about emerging infections in Canadian communities.

### NURS 175 Health Assessment and Praxis 1
Credit Units: 7.0  Course Hours: 105.0  
Prerequisite(s): APHY 162*, NURS 163*, NURS 171*, NURS 172*, SOCI 160*  
Equivalent Course(s): NEPS 115, NURS 161, NURS 170  
You will focus on the assessments and skills that support health promotion and illness prevention for the adult client population. Your experiential learning will focus on assessing the concerns of older adults and the support they require to remain independent.

### NURS 176 Foundations 2 - Mental Health
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): BIOL 100, CLIN 103, NURS 163, NURS 171, NURS 172, PHAR 101  
You will describe mental health concepts, legal and ethical considerations, and social stigmas related to mental health disorders. You will examine the role of nursing in relation to mental health and describe evidence informed nursing practice for patients and their families. You will promote mental health for patients and their families using the metaparadigm of nursing, demonstrating critical thinking and inquiry in your application of the nursing process. You will examine specific mental health disorders and examine strategies to promote safety in the context of mental health.

### NURS 202 Psychomotor Skills Lab
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): NURS 248  
You will implement the theory and principles of perioperative nursing in the performance of basic skills. Selected psychomotor skills will be demonstrated and you will practice them in a laboratory setting.

### NURS 214 Perioperative Nurse Anesthesia/LPN
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): NURS 250  
Equivalent Course(s): NURS 214CE  
You will gain an understanding of the principles of nursing care for patients during induction and emergence from anesthesia. You will also gain an understanding of emergency care protocols.

### NURS 225 Health Assessment
Credit Units: 10.0  Course Hours: 144.0  
Equivalent Course(s): NURS 225CE  
You will study the theory related to interviewing techniques, history taking and a head-to-toe physical assessment. You will attend a mandatory two-day lab where you will focus on performing a comprehensive assessment of the adult client. An evaluation of the assessment skills will be scheduled with an experienced instructor/evaluator.

### NURS 227 Health Assessment for LPNs
Credit Units: 4.0  Course Hours: 60.0  
Equivalent Course(s): NURS 227CE  
The Health Assessment course for Licensed Practical Nurses will prepare you to perform a health history and physical examination of clients. You will enhance your assessment skills with a focus on a patient centered approach. You will apply critical thinking and evidenced informed nursing practice to health assessment. You will consider health assessment in various stages across the lifespan, with a focus on the older adult. Challenges related to aging are also explored. You will perform a health history and physical examination with an older adult and document the findings in an assignment.

### NURS 238 Health Assessment and Praxis 2
Credit Units: 10.0  Course Hours: 62.0  
Prerequisite(s): PRAC 162, NURS 240*, NURS 291*, NURS 293*, APHY 262*, PHAR 160*, PHAR 264*  
Equivalent Course(s): NURS 201  
You will focus on the assessments and skills associated with rehabilitative and supportive care of the adult client. Your experiential learning will emphasize assessing and caring for adults with chronic health challenges.
Course Descriptions

NURS 240 Professional Practice and Communication 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  BIOL 100, CLIN 103, NURS 163, NURS 171, NURS 172, PHAR 101
You will examine therapeutic relationships with an emphasis on caring, advocacy, diversity, and managing ethical dilemmas. You will examine trends and issues in Canadian nursing practice and identify the scope of professional practice for the practical nurse.

NURS 241 Health Assessment and Praxis 3
Credit Units: 17.0  Course Hours: 39.0
Prerequisite(s):  PRAC 260, NURS 243*, NURS 292*, NURS 294*, SOCI 260*
You will focus on the assessments and skills associated with curative and restorative care of the adult client and beginning assessments and skills associated with post-partum newborn and pediatric clients. Your experiential learning will include assessing and caring for adult clients with acute health challenges as well as post-partum, newborn and pediatric clients.

NURS 243 Personal and Professional Relationships 3
Credit Units: 1.0  Course Hours: 22.0
Prerequisite(s):  PRAC 260
You will reflect upon the professional roles, responsibilities and relationships of the practical nurse, within the context of your own evolving nursing experience and your role as a team member.

NURS 244 Surgical Environment
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s):  NURS 209, NURS 244CE
You will be introduced to the principles of asepsis, sterilization, disinfection and infection prevention through the implementation of perioperative nursing care standards. You will learn basic technical skills necessary to prepare yourself and the patient for a surgical procedure.

NURS 245 Perioperative Nursing Process/RN
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  NURS 244*
Equivalent Course(s):  NURS 245CE
You will apply the nursing process to perioperative nursing care. You will discuss leadership, examining communication skills related to the perioperative setting. You will examine professional responsibilities related to both the registered nurse (RN) scrub and circulating roles in perioperative nursing. You will relate these perioperative principles to the RN role in surgery centres.

NURS 246 Surgical Equipment
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  NURS 244, (NURS 245 or NURS 250)
Equivalent Course(s):  NURS 246CE
You will learn how to identify, arrange, use and care for surgical instruments and accessory surgical equipment. You will learn to safely prepare and handle supplies for surgical wound closure, perform a surgical count, and manage surgical specimens.

NURS 247 Perioperative Nurse Anesthesia/RN
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  NURS 245
Equivalent Course(s):  NURS 247CE
You will use the principles of nursing care of patients during induction and emergence from anesthesia, including emergency procedure protocols.

NURS 248 Surgical Procedures
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  ANAT 266, (NURS 247* or NURS 214*)
Equivalent Course(s):  NURS 248CE
You will focus on the nursing actions to be performed by the scrub and circulating nurse during surgical procedures and the specialized care requirements of pediatric, geriatric and morbidly obese patients.

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## Course Descriptions

### NURS 250 Perioperative Nursing Process/LPN
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
- **Prerequisite(s):** NURS 244*
- **Equivalent Course(s):** NURS 250CE

You will apply the nursing process to perioperative nursing care. You will discuss factors that influence communication and identify safety considerations relevant to the perioperative setting. You will discuss professional responsibilities related to both the licensed practical nurse (LPN) scrub and circulating roles in perioperative nursing. You will relate these perioperative principles to the LPN role in surgery centers.

### NURS 289 Obstetrics for LPNs
- **Credit Units:** 1.0  
- **Course Hours:** 15.0

This course will explore antepartum care as well as the labour and delivery process, which are essential in helping the participant to care for the post-partum client.

### NURS 290 Pediatrics for LPNs
- **Credit Units:** 1.0  
- **Course Hours:** 11.0

This course explores concepts of growth and development from infancy to adolescence. Holistic assessment is also taught, which provides the foundation for safe nursing care of these clients in institutional settings.

### NURS 291 Health and Healing 2
- **Credit Units:** 3.0  
- **Course Hours:** 41.0
- **Prerequisite(s):** PRAC 162, NURS 240*, APHY 262*, PHAR 264*
- **Equivalent Course(s):** NURS 239

You will explore principles of teaching and learning, palliative care, and rehabilitation. You will examine mental health nursing and the services that are available in Saskatchewan. You will focus on client self-determination and holistic wellness.

### NURS 292 Foundations 3 – Maternal Child Health
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
- **Prerequisite(s):** CLIN 240, NURS 294, NRSG 257, NRSG 258, SOCI 201
- **Equivalent Course(s):** NURS 242

You will examine foundational assessments in the context of maternal, newborn and pediatric patient populations. You will identify growth and development milestones from newborn to adolescence with a focus on family-centred care. You will apply critical thinking and inquiry to examine common medical, surgical, nutritional, and mental health issues common in childhood and adolescents. You will examine health promotion, teaching and safety of these populations in a variety of contexts.

### NURS 293 Variations in Health 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
- **Prerequisite(s):** BIOL 100, CLIN 103, NURS 163, NURS 171, NURS 172, PHAR 101

You will examine variations in health and common chronic conditions diagnosed in the adult population. You will apply knowledge of anatomy and pathophysiology to explore health challenges affecting body systems. You will examine the diagnostic findings, nursing interventions and treatments associated with specific health challenges. With guidance, you will apply the nursing process, promote safety, and use critical thinking and evidence informed practice to deliver holistic nursing care.

### NURS 294 Variations in Health 3
- **Credit Units:** 3.0  
- **Course Hours:** 45.0
- **Prerequisite(s):** CLIN 105

You will examine the concepts of holistic nursing care related to acute variations in health for the adult patient. You will interpret laboratory and diagnostic findings in the context of acute health challenges. You will interdependently use the nursing process to deliver competent care; applying concepts of safety, critical thinking, and evidence informed practice. You will compare specific surgical treatments and apply concepts related to preoperative, intraoperative and postoperative nursing care.
NURS 295 Nursing Transitions 4
Credit Units: 27.0  Course Hours: 63.0
Prerequisite(s):  NURS 241, NURS 243, NURS 292, NURS 294, SOCI 260, SOCI 261*
You will integrate theory into your practice while providing holistic nursing care to individuals requiring curative and restorative nursing care. You will concentrate on the transition from the role of student to graduate practical nurse. You will be introduced to the leadership role in the health care system and the concept of patient safety from a systems approach. You will explore interprofessional collaboration in a health care team context. Your studies will also focus on intravenous therapy, including the administration of intravenous medications, the use of central venous access devices and the initiation of intravenous lines.

NUTR 180 Nutrition and Healthy Living
Credit Units: 3.0  Course Hours: 45.0
You will study the fundamental principles of the science of human nutrition. How nutritional intake affects health will be emphasized. Contemporary issues in nutrition will be discussed.

NUTR 181 Diet Therapy 1
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  NUTR 180
You will learn about various disease states and the required specialized diets.

NUTR 186 Diet Therapy 1
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  NUTR 180*
You will learn about various disease states and their required specialized diets. You will apply texture modification techniques in the lab and will gain practical experience writing special diets and marking menus.

NUTR 194 Introduction to Computation Software
Credit Units: 1.0  Course Hours: 15.0
Your studies will introduce you to basic skills in the use of Computation software. This software is designed to run an entire food service operation including menu planning, food inventories, recipe files, and patient care management. You will learn the basics about the program and participate in data entry using the Computation software.

NUTR 198 Nutrition
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  NUTR 198CE
You will learn normal nutritional requirements based on Eating Well with Canada’s Food Guide. The course content also includes exploring how to maintain optimal nutritional balance for your clients.

NUTR 200 Animal Nutrition
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  CHEM 101
Equivalent Course(s):  SEM 281
Your studies will guide you in the feeding of animals including an understanding of key nutritional factors in disease conditions and therapeutic foods. You will learn how to advise clients about feeding companion animals including the prevention of obesity.

NUTR 201 Nutrition
Credit Units: 2.0  Course Hours: 30.0
You will develop an understanding of the role of nutrition as it relates to general and oral health and disease. Through a variety of learning experiences which may include classroom instruction, group activities, practical exercises and independent learning, you will acquire knowledge of the standards and guidelines for planning and assessing the nutritional adequacy of diets. You will learn about the function and dietary sources of the major nutrients. You will examine the nutritional needs throughout the lifecycle as well as nutrition-related oral health issues.

NUTR 202 Diet Therapy 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  NUTR 186
Building on the skills you developed in Diet Therapy 1, you will continue to learn about various disease states and required specialized diets. You will continue to gain practical experience writing special diets and marking menus.

NUTR 203 Nutrition Care Planning Through the Life Cycle
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  NUTR 186, NUTR 202*
You will study nutritional needs throughout the life cycle. Maternal, infant, childhood, adolescent and gerontological nutrition will be emphasized. You will also be introduced to nutritional assessment and patient counselling.
Course Descriptions

NUTR 284 Diet Therapy 2
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s):  NUTR 181
Building on the skills you developed in Diet Therapy 1, you will continue to learn about various disease states and required specialized diets.

NUTR 285 Diet Writing
Credit Units: 1.0    Course Hours: 22.0
Prerequisite(s):  NUTR 181
You will gain practical experience writing special diets.

NUTR 286 Nutrition Through the Life Cycle
Credit Units: 2.0    Course Hours: 36.0
Prerequisite(s):  NUTR 180
You will study nutritional needs throughout the life cycle. Infant, maternal and gerontological nutrition will be emphasized. You will also plan a therapeutic menu for a special care home.

NUTR 287 Nutrition Care Planning
Credit Units: 2.0    Course Hours: 24.0
Prerequisite(s):  NUTR 181
You will be introduced to the nutritional assessment process and patient counselling.

OPRO 142 Court Office Systems and Procedures
Credit Units: 4.0    Course Hours: 60.0
You will examine the various court office systems and procedures. You will manage court documents, and use the daily docket system, file systems, and apply court protocols and procedures.

OPRO 100 Office Procedures
Credit Units: 6.0    Course Hours: 96.0
Equivalent Course(s): OPRO 100CE
You will learn time management, customer service, reception, problem solving, and team building skills. You will also learn how to effectively perform office procedures skills related to telephones, incoming and outgoing mail, and business meetings. As well, you will learn internet applications, e-mail, electronic calendaring and scheduling and how to manage office supplies and business forms.

OPRO 104 Document Processing in Emergency Communication
Credit Units: 4.0    Course Hours: 60.0
Prerequisite(s):  PLPR 100*
You will explore the variety of tools, documents and reports commonly used within an emergency communications centre. You will create, format and use various documents and reports such as call logs and protocols. Quality improvement and quality assurance tools utilized within a communications centre are examined.

OPRO 133 Records Management
Credit Units: 3.0    Course Hours: 48.0
Equivalent Course(s): OPRO 133CE
You will learn about records management procedures and equipment and various types of filing systems including electronic filing.

ORTN 102 Orientation to Industry
Credit Units: 2.0    Course Hours: 25.0
Equivalent Course(s): ORTN 160
Your studies will include examining the possible roles of a technician and introduce you to professional ethics, industry standards and accountability. You will also study Occupational Health and Safety (OH&S) regulations.

ORTN 190 Introduction to Library Service
Credit Units: 3.0    Course Hours: 45.0
Equivalent Course(s): ORTN 190CE
You will examine various library organizational structures, personnel descriptions and duties, and materials and services to specific patrons. Library and Archives Canada, other major Canadian libraries, the Saskatchewan library system and other library partnerships will be discussed.

ORTN 199 Orientation to Funeral Service
Credit Units: 3.0    Course Hours: 45.0
Equivalent Course(s): ORTN 199CE
You will receive an orientation to the funeral services profession. Topics will include the history, varying traditions and religious practices that influence arrangements. You will also gain an understanding of the nature of employment within the funeral services profession.

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<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit Units</th>
<th>Course Hours</th>
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<tr>
<td><strong>ORTN 382 Orientation to Practicum</strong></td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td>Prerequisite(s): HLTH 104*, EMPL 180*</td>
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<tr>
<td>Equivalent Course(s): ORTN 382CE</td>
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<tr>
<td>You will be introduced to the workplace and occupational role settings</td>
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<td>involved in working with persons with disabilities.</td>
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<tr>
<td><strong>ORTN 385 Orientation</strong></td>
<td>4.0</td>
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<td>Equivalent Course(s): ORTN 385CE</td>
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<td>You will visit human service agencies and you will meet the workers</td>
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<td>from a range of programs and agencies for youth, adults, and families</td>
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<td>at risk. You will prepare for advanced coursework and confirm your</td>
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<td>career choice.</td>
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<td><strong>PALL 100 Palliative Care</strong></td>
<td>2.0</td>
<td>30.0</td>
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<td>Equivalent Course(s): PALL 100CE</td>
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<td>You will focus on the process of dying and the impact it has on a</td>
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<td>palliative patient's family. You will study palliative patient care</td>
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<td>and the strategies used to assist health care workers when providing</td>
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<td>care to a palliative patient. You will participate in labs and online</td>
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<td>discussions to help you develop the skills required to provide care to</td>
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<td>a palliative patient.</td>
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<td><strong>PARK 100 Park Services</strong></td>
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<td>Your studies will focus on the history, development and management</td>
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<td>framework of Saskatchewan’s park system. You will also learn about</td>
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<td>procedures for evacuation and re-entry of danger areas as well as</td>
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<td>search and rescue techniques.</td>
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<td><strong>PARK 400 Park Programs</strong></td>
<td>3.0</td>
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<td>Your studies will focus on the principles and application of</td>
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<td>environmental interpretation and visitor service programs. You will</td>
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<tr>
<td>also learn about procedures for trail development, managing visitors</td>
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<td>and conflict. The course includes an introduction to emergency</td>
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<td>troubleshooting, fire hazard and risk management.</td>
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<td><strong>PART 100 Parts Identification for Engines</strong></td>
<td>2.0</td>
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<td>Equivalent Course(s): PART 288</td>
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<td>You will develop an understanding of the function and components of</td>
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<td>engines.</td>
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<td><strong>PART 101 Parts Identification for Electrical</strong></td>
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<td>30.0</td>
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<td>Equivalent Course(s): PART 195</td>
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<tr>
<td>You will learn the function and components of electrical and electronic</td>
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<td>devices.</td>
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<td><strong>PART 102 Parts Identification for Vehicle Systems</strong></td>
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<td>30.0</td>
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<tr>
<td>Equivalent Course(s): PART 289</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You will learn the function and the components of vehicle and</td>
<td></td>
<td></td>
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<tr>
<td>equipment systems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PART 103 Parts Identification for Lubrication and Drive Systems</strong></td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>You will learn the function and components of the lubrication and drive</td>
<td></td>
<td></td>
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<tr>
<td>systems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PART 104 Common Tools</strong></td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Equivalent Course(s): PART 192</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You will learn how to identify and use hand tools, power tools</td>
<td></td>
<td></td>
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<tr>
<td>and measuring equipment. The function and proper selection for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>customer requests will be emphasized.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PART 105 Regulations and Safety</strong></td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Equivalent Course(s): PART 191</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You will gain an understanding of Occupational Health and Safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>regulations, personal and shop safety, fire safety and work safe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>policies and procedures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PART 106 Warehousing and Documentation</strong></td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>The course will focus on a variety of transactions that occur in a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>parts department. This includes point of sale documentation, tracking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>documents and forms used for other functions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PART 107 Parts Training Enhancement</strong></td>
<td>7.0</td>
<td>100.0</td>
<td></td>
<td>You will learn how to apply the theory from all courses to the parts trade.</td>
</tr>
<tr>
<td><strong>PART 179 Parts Marketing Essentials</strong></td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>You will explore topics related to creating and launching quality sales and marketing programs. Learn helpful new tricks and tips to identify your target markets and effectively showcase everything you and your business have to offer.</td>
</tr>
<tr>
<td><strong>PART 191 Introduction to the Parts and Warehousing Trades</strong></td>
<td>2.0</td>
<td>30.0</td>
<td>PART 191CE</td>
<td>You will study the history of the program and the reason for trained parts people in the industry, examining the different types of dealership and aftermarket parts distribution networks. OH&amp;S, personal and shop safety, fire safety and worksafe policies and procedures will be covered.</td>
</tr>
<tr>
<td><strong>PART 192 Tools and Measuring</strong></td>
<td>2.0</td>
<td>30.0</td>
<td>PART 192CE</td>
<td>You will learn how to identify and use hand tools, power tools and measuring equipment.</td>
</tr>
<tr>
<td><strong>PART 193 Engine Systems 1</strong></td>
<td>2.0</td>
<td>30.0</td>
<td>PART 193CE</td>
<td>Your studies will focus on the components of all the systems that are associated with the engine (including fuel, emissions and lubrication systems).</td>
</tr>
<tr>
<td><strong>PART 194 Parts Information Systems</strong></td>
<td>2.0</td>
<td>30.0</td>
<td>PART 194CE</td>
<td>You will learn the different methods of locating and identifying components. These include printed materials, microfiche and computer technology.</td>
</tr>
<tr>
<td><strong>PART 195 Electrical Parts 1</strong></td>
<td>2.0</td>
<td>30.0</td>
<td>PART 195CE</td>
<td>You will study the fundamentals of electricity and learn how to identify the components of circuits found on a vehicle.</td>
</tr>
<tr>
<td><strong>PART 196 Parts Facilities</strong></td>
<td>2.0</td>
<td>30.0</td>
<td>PART 196CE</td>
<td>You will learn how to set up and/or organize a parts area. The course covers building design, storage areas and binning systems.</td>
</tr>
<tr>
<td><strong>PART 197 Parts Documentation</strong></td>
<td>2.0</td>
<td>30.0</td>
<td>PART 197CE</td>
<td>You will become familiar with the various transactions that occur in a parts department. This includes point-of-sale documentation and forms used for other functions.</td>
</tr>
<tr>
<td><strong>PART 198 Parts Warehousing</strong></td>
<td>3.0</td>
<td>45.0</td>
<td>PART 198CE</td>
<td>Your studies will cover the history of warehousing, transportation systems, shipping and receiving and transportation of various products.</td>
</tr>
<tr>
<td><strong>PART 199 Inventory Audit</strong></td>
<td>2.0</td>
<td>30.0</td>
<td>PART 199CE</td>
<td>You will learn the requirements and procedures for doing an inventory count.</td>
</tr>
<tr>
<td><strong>PART 287 Hydraulic Parts</strong></td>
<td>2.0</td>
<td>30.0</td>
<td>PART 287CE</td>
<td>You will study the principles of hydraulics and learn how to operate and identify components.</td>
</tr>
</tbody>
</table>

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PART 288 Engine Parts 1
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PART 288CE
Your studies will examine engine classifications and design. You will focus on identifying engine components and their function.

PART 289 Vehicle System Parts
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PART 289CE
Your studies will cover suspension, steering and braking systems. You will focus on the principles of these systems as well as the components.

PART 291 Drivetrain Components
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PART 291CE
You will study transmissions, differentials, final drives, clutches and converters, as well as drive lines. You will focus on the function of the parts and replacement parts available.

PART 292 Standard Inventory
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PART 292CE
Your studies will focus on parts and products that are common to all types of parts operations. It will include fasteners, fittings, bearings, seals, belts, chains, couplers and clutches. You will focus on the function and the replacement of these high-activity parts and products.

PART 293 Engine Systems 2
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PART 293CE
You will study engine heating and cooling systems, air conditioning and lubricating systems. You will focus on the high-activity parts and the function of the components.

PART 294 Automotive and Truck Wholegoods
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PART 249CE
Your studies will focus on the areas that are common to the automotive, light truck, and heavy truck components of the parts industry. You will focus on body design, chassis components, operator features, and safety systems.

PART 295 Electrical Parts 2
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PART 295CE
Prerequisite(s):  PART 195
You will study the internal components of the starting, ignition, lighting, horn and accessories system circuits. You will focus on the function of the components as well as the replacement parts.

PART 296 Agricultural and Industrial Wholegoods
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PART 296CE
You will learn about the equipment used in agricultural and industrial applications. You will focus on basic operation with special attention to the fast-wearing parts.

PART 298 Engine Parts 2
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PART 298CE
Prerequisite(s):  PART 288
You will study the function of all engine components and failure analysis.

PART 299 Inventory Control
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PART 299CE
You will learn the management tools and control systems used to manage inventory.

PATH 100 Pathophysiology 1
Credit Units: 3.0  Course Hours: 38.0
Your studies will build on your knowledge of anatomy and physiology as you are introduced to common diseases encountered in paramedic practice. You will study how the body is affected by disease as it defends against infection and adverse environments. You will explore how injury and illness affect the cardiovascular, nervous, respiratory, immune, endocrine and integumentary systems.
# Course Descriptions

## PATH 161 Pathophysiology 1
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): MED 161, APHY 100*  
Equivalent Course(s): PATH 161CE

You will be introduced to various concepts and disease processes that can affect normal body structure and function. You will study the common diagnostic investigations and treatments associated with each disease process. You will also study the effects of drugs on the human body.

## PATH 179 Radiographic Pathology 1
Credit Units: 2.0  Course Hours: 33.0  
Prerequisite(s): RGAN 180

You will learn how to identify the pathological conditions of specific body systems as demonstrated on radiographs. At course completion, you will be able to use the required radiographic qualities to adequately illustrate the pathology in question.

## PATH 181 Laboratory Result Correlation
Credit Units: 3.0  Course Hours: 40.0  
Prerequisite(s): HEMA 179, CHEM 279*, HEMA 192

You will focus on the role of the laboratory in diagnosis and disease management. The course content includes the analyses used and brief descriptions of common disorders involving the various body systems. You will use this information to help you define the role of the laboratory in disease diagnosis and management. This information will assist you to detect possible discrepancies in laboratory test results.

## PATH 184 Radiographic Pathology 2
Credit Units: 2.0  Course Hours: 23.0  
Prerequisite(s): PATH 179

Building on the knowledge you gained in PATH 179 (Radiographic Pathology 1), you will continue to learn how to identify pathological conditions relative to radiographic appearance and which projection/view would best demonstrate them. You will discuss adjustments in exposure factors and general disease processes.

## PATH 185 Introductory Cytopathology 1
Credit Units: 1.0  Course Hours: 20.0  
Prerequisite(s): MTER 180*

You will discuss general cytology practices including sampling techniques, cytologic stains and the evolution of cytology. You will learn about quality control and quality assurance in the medical laboratory. You will develop a basic knowledge of the cell, the cell cycle, chromosomes and their relationship to cancer.

## PATH 186 Pathophysiology
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s): PATH 186CE

The course content provides you with an introduction to the study of various disease processes that can affect body structure and function. You will also examine disease processes as they affect specific body systems.

## PATH 200 Pathophysiology 2
Credit Units: 3.0  Course Hours: 38.0  
Prerequisite(s): PATH 100

Building on your knowledge of anatomy and physiology as well as how the body responds to disease, you will study injury and illness involving the gastrointestinal, genitourinary, reproductive, musculoskeletal and special senses body systems. You will study how cancer, poisons, medications, injury and trauma affect the human body.

## PATH 201 Clinical Pathology - Theory
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): APHY 281, IMMU 281, MICR 186, VETR 191, VETR 193  
Corequisite(s): PATH 202

You will be introduced to laboratory diagnostic tests that are commonly conducted in veterinary medicine. You will learn about the composition, structure and function of blood and urine in selected domestic animal species. You will learn to recognize normal parameters and changes that occur during disease. You will apply the theory from this course to Clinical Pathology - Practical (PATH 202).

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## Course Descriptions

### PATH 202 Clinical Pathology - Practical
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): APHY 281, IMMU 281, MICR 186, VETR 191, VETR 193, ANIM 282  
Corequisite(s): PATH 201  
You will develop practical skills in hematology, clinical chemistry and urinalysis. Your training will include use of spectrophotometry, reflectance photometry, impedance technology, laser flow cytometry, serological testing, blood typing, urinalysis, and common manual diagnostic procedures, as well as slide differentials. You will perform quality control procedures to ensure accuracy of results.

### PATH 262 General/Oral Pathology and Pharmacology
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): APHY 160, DENT 166  
You will explore common disease of the body and the dental management of the medically compromised client. You will learn about various diseases and conditions of the oral cavity. Medications used to treat medical and dental conditions will be explored and the dental implications of medications will also be emphasized.

### PATH 268 General Pathology
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): BIOL 100, BIOL 101  
Through independent study, class discussions, and practice predicament learning activities, you will identify clients for whom the initiation or continuation of treatment must be modified or is contraindicated based upon interpretation of health history and clinical data. You will identify clients at risk for medical emergencies and use strategies to minimize such risks.

### PATH 269 Oral Pathology
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): ANAT 163, ANAT 164, PATH 268  
Corequisite(s): DHYG 277  
Through independent study, class discussions and practice predicament activities, you will identify common lesions in the oral cavity. You will plan dental hygiene strategies to manage oral lesions.

### PATH 272 Pathophysiology 2
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): PATH 161, APHY 200*  
Equivalent Course(s): PATH 272CE  
Building on the skills you developed in Pathophysiology 1 (PATH 161), you will study disease processes and the effects they have on the skin, breast, musculoskeletal, cardiovascular, blood, lymphatic and respiratory body systems.

### PATH 273 Pathophysiology 3
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): PATH 272, APHY 200*  
Equivalent Course(s): PATH 273CE  
Building on the skills you developed in Pathophysiology 1 (PATH 161) and Pathophysiology 2 (PATH 272), you will continue to learn disease processes and the effects they have on the digestive, urinary, reproductive and endocrine body systems. You will also examine disorders of the eye and ear, neurological and psychiatric disorders.

### PATH 280 Introductory Cytopathology 2
Credit Units: 1.0  Course Hours: 20.0  
Prerequisite(s): PATH 185  
You will develop a basic knowledge of the cell's response to injury, inflammation and repair. You will also learn about cell life and death. You will also be introduced to normal and abnormal cytomorphology.

### PATH 281 Introductory Cytopathology 3
Credit Units: 1.0  Course Hours: 17.0  
Prerequisite(s): PATH 280  
Equivalent Course(s): PATH 281CE  
You will develop a basic knowledge of disease processes as a foundation for the study of cytology. You will learn the nature and cause of disease with an emphasis on neoplasia.

### PAVE 100 Asphalt Construction
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): SOIL 100  
Equivalent Course(s): PAVE 220  
You will learn how to inspect, manage and evaluate the manufacture and placement of aggregate and bituminous mix for parking lots, streets and highways. You will apply American Society for Testing and Materials (ASTM) and Canadian Standards Association (CSA) standards.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAVE 220</td>
<td>Asphalt Construction</td>
<td>4.0</td>
<td>64.0</td>
<td>SOIL 120</td>
<td>SOIL 220</td>
</tr>
<tr>
<td>PAVE 222</td>
<td>Pavement Structures</td>
<td>4.0</td>
<td>64.0</td>
<td>SOIL 220</td>
<td></td>
</tr>
<tr>
<td>PD 143</td>
<td>Professionalism</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td>PD 143CE</td>
</tr>
<tr>
<td>PD 240</td>
<td>Professionalism in Early Childhood Education</td>
<td>3.0</td>
<td>40.0</td>
<td>PRAC 181 or PRAC 105</td>
<td>PD 240CE</td>
</tr>
<tr>
<td>PE 181</td>
<td>Personal Health and Wellness in Communities</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
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</tr>
<tr>
<td>PE 282</td>
<td>Sports Management</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
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</tr>
<tr>
<td>PERS 101</td>
<td>Personal Wellness 1</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>PERS 101CE</td>
</tr>
<tr>
<td>PERS 102</td>
<td>Personal Wellness 2</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
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</tr>
<tr>
<td>PERS 180</td>
<td>Basic Care Skills</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>HLTH 186, PERS 180CE, SPCR 182</td>
</tr>
<tr>
<td>PERS 181</td>
<td>Customer Service Skills</td>
<td>2.0</td>
<td>24.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **PAVE 220 Asphalt Construction**
  - **Credit Units:** 4.0
  - **Course Hours:** 64.0
  - **Prerequisite(s):** SOIL 120
  - **Corequisite(s):** SOIL 220
  - You will learn how to inspect, manage and evaluate the manufacture and placement of aggregate and bituminous mix for parking lots, streets and highways.

- **PAVE 222 Pavement Structures**
  - **Credit Units:** 4.0
  - **Course Hours:** 64.0
  - **Prerequisite(s):** SOIL 220
  - Your studies will focus on designing, constructing, evaluating and managing asphalt and Portland cement pavement structures.

- **PD 143 Professionalism**
  - **Credit Units:** 1.0
  - **Course Hours:** 15.0
  - **Equivalent Course(s):** PD 143CE
  - Your studies will focus on the importance of professionalism in the operation of a small business. You will explore the following topics: ethics, time and stress management, professional development, public image, and social responsibility.

- **PD 240 Professionalism in Early Childhood Education**
  - **Credit Units:** 3.0
  - **Course Hours:** 40.0
  - **Prerequisite(s):** PRAC 181 or PRAC 105
  - **Equivalent Course(s):** PD 240CE
  - Your studies will focus on the role of the early childhood educator and professionalism as it relates to issues, advocacy, leadership, and professional development. The course provides an introduction to your role as an advocate in the field of early childhood education. The course content includes instruction and practice in identifying issues, advocating, seeking professional development, and preparing for a career as a professional in the early childhood field.

- **PE 181 Personal Health and Wellness in Communities**
  - **Credit Units:** 3.0
  - **Course Hours:** 45.0
  - You will be provided with information on fitness/wellness as a lifestyle within the recreation field. Your studies will focus on the dynamics of fitness/wellness and its relationship to different target groups. You will also develop an overall understanding of how a fitness program is designed.

- **PE 282 Sports Management**
  - **Credit Units:** 3.0
  - **Course Hours:** 45.0
  - Your studies will focus on the sport delivery system. You will discuss the impact and benefits of sport; and address topical issues of moral reasoning, ethics, racism, abuse, equity, screening, and others in sport.

- **PERS 101 Personal Wellness 1**
  - **Credit Units:** 3.0
  - **Course Hours:** 45.0
  - **Equivalent Course(s):** PERS 101CE
  - You will examine various aspects of personal wellness with an emphasis on and maintaining a healthy lifestyle. You will follow a fitness routine to meet the physical demands to work in a law enforcement environment.

- **PERS 102 Personal Wellness 2**
  - **Credit Units:** 3.0
  - **Course Hours:** 45.0
  - You will examine various aspects of personal wellness with an emphasis on nutrition and stress management. You will follow a fitness routine to meet the physical demands to work in a law enforcement environment.

- **PERS 180 Basic Care Skills**
  - **Credit Units:** 3.0
  - **Course Hours:** 45.0
  - **Equivalent Course(s):** HLTH 186, PERS 180CE, SPCR 182
  - You will learn and demonstrate the attitudes and skills of providing personal and physical daily care to persons with disabilities. You will learn the essential role of dignity and respect in person-centred planning and care. You will discuss your legal and ethical responsibilities while providing care. You will develop skills to safely assist individuals with activities of daily living and to support their optimal levels of independence. You will study the process of medication administration.

- **PERS 181 Customer Service Skills**
  - **Credit Units:** 2.0
  - **Course Hours:** 24.0
  - You will develop your skills in providing customer service.
# Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
</tr>
</thead>
</table>
| **PEST 161 Pesticide Safety & Legislation** | Credit Units: 1.0  
  Course Hours: 10.0  
  Equivalent Course(s): PEST 161CE  
  This course covers the safety and legislation portion of pesticide application. This training is required by persons who possess an out-of-province pesticide applicator's permit and who wish to obtain a Saskatchewan permit. Course content includes safety procedures and first aid; and government legislation and regulations. |
| **PEST 162 Pesticide Dispenser** | Credit Units: 1.0  
  Course Hours: 15.0  
  Equivalent Course(s): PEST 162CE  
  This course focuses on the responsibilities and duties of individuals who handle and sell pesticide products at the retail level (such as employees at a farm supply business). It is not intended for pesticide applicators. |
| **PEST 165 Tree Pruning** | Credit Units: 2.0  
  Course Hours: 27.0  
  Equivalent Course(s): PEST 165CE  
  This course provides the basic skills and knowledge that are needed to understand how pruning affects the development and survival of trees and how pruning is used for disease prevention. The class is useful for home owners, landscapers and commercial or municipal tree pruners. This course is recognized in an endorsement program for elm pruners through the Saskatchewan Apprenticeship and Trade Certificate Commission. |
| **PEST 166 Aerial Applicator** | Credit Units: 2.0  
  Course Hours: 30.0  
  Equivalent Course(s): PEST 166CE  
  You will study the application of pest control products by air to forest lands, rights of way, agricultural and non-agricultural land. |
| **PEST 167 Agriculture Applicator** | Credit Units: 2.0  
  Course Hours: 30.0  
  Equivalent Course(s): PEST 167CE  
  You will learn how to use pesticides for controlling agricultural pests such as weeds, insects and diseases. The course content includes on-farm seed treatment, bird and rodent control, and weed control in farm dugouts and shelterbelts. |
| **PEST 168 Aquatic Vegetation Applicator** | Credit Units: 2.0  
  Course Hours: 30.0  
  Equivalent Course(s): PEST 168CE  
  Your studies will focus on herbicide use for controlling aquatic vegetation in standing and running water or areas left exposed during low water periods. |
| **PEST 169 Fumigation Applicator** | Credit Units: 2.0  
  Course Hours: 30.0  
  Equivalent Course(s): PEST 169CE  
  You will study the use of fumigants for soil fumigation, or to control pests of stored products in buildings, grain bins and elevators, rail cars, trucks and containers. Intended for commercial fumigations. |
| **PEST 170 Greenhouse Applicator** | Credit Units: 2.0  
  Course Hours: 30.0  
  Equivalent Course(s): PEST 170CE  
  You will learn how to use herbicides, fungicides, insecticides and rodenticides in greenhouses during crop storage, display and production. The course content includes pesticide use on areas immediately surrounding greenhouses and on plants in occupied buildings. |
| **PEST 171 Industrial Vegetation Applicator** | Credit Units: 2.0  
  Course Hours: 30.0  
  Equivalent Course(s): PEST 171CE  
  Your studies will focus on using herbicides for vegetation control in industrial areas (such as roadsides, rights of way, well sites, parking lots and equipment yards). |
| **PEST 172 Landscape Applicator** | Credit Units: 2.0  
  Course Hours: 30.0  
  Equivalent Course(s): PEST 172CE  
  You will learn how to use herbicides, insecticides and fungicides on outdoor residential, commercial and public lands (such as yard care service, park or golf course maintenance). |
| **PEST 173 Mosquito and Biting Fly Applicator** | Credit Units: 2.0  
  Course Hours: 30.0  
  Equivalent Course(s): PEST 173CE  
  You will study insecticide use for controlling mosquito and biting fly larvae and adults. |
## Course Descriptions

### PEST 174 Structural Applicator
Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s): PEST 174CE

You will learn how to use insecticides, rodenticides and avicides for pest control in and around structures. The course content includes rodent control on public and private land.

### PEST 175 Commercial Seed Treatment Applicator
Credit Units: 1.0  
Course Hours: 15.0  
Equivalent Course(s): PEST 175CE

You will study fungicide and insecticide use for commercial seed treatment operations.

### PEST 176 On-Farm Fumigation
Credit Units: 1.0  
Course Hours: 15.0  
Equivalent Course(s): PEST 176CE

This course focuses on the use of fumigants by farmers for the control of stored grain insects and ground squirrels on their own farm. Not for commercial use. Intended for on-farm use only.

### PEST 177 Rat Control Applicator
Credit Units: 1.0  
Course Hours: 15.0  
Equivalent Course(s): PEST 177CE

Your studies will focus on using rodenticides for controlling rats and mice (also included in the Structural License).

### PEST 178 Sask Provincial Applicator Regulations
Credit Units: 1.0  
Course Hours: 3.0  
Equivalent Course(s): PEST 178CE

This course fulfills the legislated requirement for licencing commercial pesticide applicators from other jurisdictions who are applying for reciprocal licencing in Saskatchewan.

### PEST 179 Parks Management
Credit Units: 1.0  
Course Hours: 15.0  
Equivalent Course(s): PEST 179CE

You will learn how to use pesticides for controlling nuisance pests in public national, provincial and regional parks including nuisance insects, rodents and weeds. This course is not intended for pest control in urban park locations (e.g. city parks).

### PEST 180 Aerial Applicator Mixer/Loader
Credit Units: 1.0  
Course Hours: 15.0  
Equivalent Course(s): PEST 180CE

You will study mixing and loading pesticides for aerial applications.

### PEST 181 Wood Preservation Applicator
Credit Units: 1.0  
Course Hours: 15.0  
Equivalent Course(s): PEST 181CE

You will study how to control wood-destroying pests in wood poles and timbers.

### PEST 200 Pesticide Applicator
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): CHEM 102, SAFE 105

You will examine integrated pest management. You will learn how to interpret pesticide labels, about legislation as well the human and environmental risks associate with applying pesticides. You will also acquire information on pesticides and their uses, pest control, safe handling and the use of pesticides.

### PEST 261 Safety and Legislation Re-certification
Credit Units: 1.0  
Course Hours: 6.0  
Equivalent Course(s): PEST 261CE

Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

### PEST 262 Pesticide Dispenser Re-certification
Credit Units: 1.0  
Course Hours: 6.0  
Equivalent Course(s): PEST 262CE

Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

### PEST 266 Aerial Applicator Re-certification
Credit Units: 1.0  
Course Hours: 6.0  
Equivalent Course(s): PEST 266CE

Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.
PEST 267 Agriculture Applicator Re-certification
Credit Units: 1.0  Course Hours: 6.0
Equivalent Course(s): PEST 267CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

PEST 268 Aquatic Vegetation Re-certification
Credit Units: 1.0  Course Hours: 6.0
Equivalent Course(s): PEST 268CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

PEST 269 Fumigation Re-certification
Credit Units: 1.0  Course Hours: 6.0
Equivalent Course(s): PEST 269CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

PEST 270 Greenhouse Applicator Re-certification
Credit Units: 1.0  Course Hours: 6.0
Equivalent Course(s): PEST 270CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

PEST 271 Industrial Vegetation Re-certification
Credit Units: 1.0  Course Hours: 6.0
Equivalent Course(s): PEST 271CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

PEST 272 Landscape Re-certification
Credit Units: 1.0  Course Hours: 6.0
Equivalent Course(s): PEST 272CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

PEST 273 Mosquito and Biting Fly Re-certification
Credit Units: 1.0  Course Hours: 6.0
Equivalent Course(s): PEST 273CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

PEST 274 Structural Re-certification
Credit Units: 1.0  Course Hours: 6.0
Equivalent Course(s): PEST 274CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

PEST 275 Commercial Seed Treatment Re-certification
Credit Units: 1.0  Course Hours: 6.0
Equivalent Course(s): PEST 275CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

PEST 276 On-Farm Fumigation Re-certification
Credit Units: 1.0  Course Hours: 6.0
Equivalent Course(s): PEST 276CE
The course focuses on the use of fumigants by farmers and elevator employees. Farmers will learn how to use fumigants to control insects in grain stored on their farms and to control ground squirrels on their farms. Elevator employees will learn how to use fumigants to control insects in grain stored in the elevator where they work.
PEST 277 Rat Control Re-certification
Credit Units: 1.0        Course Hours: 6.0
Equivalent Course(s):  PEST 277CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination.

PEST 279 Parks Management Re-Cert
Credit Units: 1.0        Course Hours: 15.0
Equivalent Course(s):  PEST 279CE
Licensed commercial pesticide applicators must renew their certification every five years. This course allows students to renew their pesticide training and/or challenge the renewal examination in the Parks Management license category.

PHAR 100 Pharmacology and Fluid Therapy
Credit Units: 3.0        Course Hours: 45.0
You will focus on the principles of pharmacology, medication administration, and fluid therapy, including intravenous access and initiation. You will study the fundamentals of pharmacology, including terminology, legislation, and medication classifications. You will perform mathematical calculations, including general calculations, metric conversions, drug dose calculations and intravenous rate calculations. Your studies will focus on medications within a Primary Care Paramedic’s scope of practice in Saskatchewan including the administration of blood and blood products. You will also participate in labs that will help you develop the skills necessary for responsible and safe medication administration.

PHAR 101 Pharmacology 1
Credit Units: 3.0        Course Hours: 45.0
Corequisite(s):  CLIN 103
You will identify Canadian medication systems, medication classifications and names. You will identify the principles and nursing responsibilities for competent medication calculation and administration. You will demonstrate evidenced informed care and knowledge of medication actions, differentiating medication actions and effects in the body, and examining strategies for safe administration. Your theoretical learning will focus on vitamins, complementary medications, antihistamines and drugs affecting the gastrointestinal system.

PHAR 102 Pharmacology 2
Credit Units: 4.0        Course Hours: 60.0
Prerequisite(s):  BIOL 100, CLIN 103, NURS 163, NURS 171, NURS 172, PHAR 101
Corequisite(s):  CLIN 104
You will demonstrate skills and abilities required for medication administration to pediatric and adult populations. You will prepare and administer medications through enteral, percutaneous and parenteral routes. You will examine medication classifications for the cardiovascular, endocrine, immune, and central nervous and autonomic nervous systems, and demonstrate evidenced informed practice in applying principles of safe medication administration.

PHAR 160 Introductory Pharmacology
Credit Units: 3.0        Course Hours: 46.0
Prerequisite(s):  APHY 262*
Equivalent Course(s):  NURS 213
You will study the basic concepts of pharmacology and related nursing responsibilities in the context of patient safety. Your studies will focus on medication classifications, preparations, as well as medication interactions in the human body. You will receive information about Canadian laws pertaining to medications. You will study and research selected medication classifications in depth. You will examine patient safety principles at the systems level and the practitioner level.

PHAR 169 Pharmacology and Prehospital Medications
Credit Units: 3.0        Course Hours: 45.0
Equivalent Course(s):  PHAR 169CE
You will focus on the principles of pharmacology and medication administration techniques. You will study the fundamentals of pharmacology (including terminology, legislation) and medication classifications. You will perform mathematical calculations (including general math calculations, metric conversions and drug dose and intravenous rate calculations). Your studies will focus on medications within a Primary Care Paramedic’s scope of practice in Saskatchewan including the administration of blood and blood products. You will also participate in labs that will help you develop the skills necessary for responsible and safe medication administration.
Course Descriptions

PHAR 170 Fluid Therapy
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s): PHAR 170CE
You will study the principles of fluid therapy and intravenous access. Your studies will include how to locate intravenous access sites and how to prepare intravenous equipment. You will perform intravenous cannulation and maintain an established intraosseous infusion.

PHAR 171 Pharmacology
Credit Units: 4.0  Course Hours: 58.0
Prerequisite(s): ANAT 167*, EMER 158*, PATH 100*
You will study the principles of pharmacology, medication administration, and blood collection. Your studies will focus on advanced care paramedic medication classifications. You will also participate in labs that will help you develop the skills necessary for responsible and safe medication administration.

PHAR 179 Pharmacology for the Pharmacy Technician
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): MTER 100*, APHY 160*
You will study drugs within the scope of pharmacy technician practice. You will study how drugs are absorbed, distributed, metabolized and excreted. You will study the different formulations of drugs and its effect on pharmacokinetics, bioavailability, administration routes, dosage forms, stability and shelf life.

PHAR 182 Pharmacy Practice
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MATH 168*
You will become familiar with the role of the pharmacy, pharmacist and pharmacy technician in the health care delivery system. You will learn about the expectations and responsibilities of pharmacy team members. You will study the collection and use of patient information in pharmacy.

PHAR 183 Introduction to Pharmacy Dispensing Lab
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): PHAR 182, PHAR 184, PHAR 185, PHAR 187, PHAR 179, SFTY 179*, MICR 110*
You will be introduced to prescription dispensing. You will receive, process, and prepare prescriptions in a manner that ensures patient safety through accuracy and quality of the product. You will perform calculations, pricing and record keeping functions used in community pharmacies. You will apply laboratory and classroom learning from other courses to manage common aspects of dispensing.

PHAR 184 Pharmacy Agreements
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): MATH 168*, PHAR 185*
You will be introduced to pharmacy agreements which guide pricing of medication services. You will manage the financial elements associated with the processing of prescriptions. You will study the applicable federal and provincial agreements. You will examine third-party plan coverage and payment requirements for prescription and non-prescription products (including formularies, benefit lists, interchangeable products, copayment and deductible limits, prescription quantity limits and billing/adjudication issues). You will study enhanced pharmacy services and the guidelines for reimbursement for these services.

PHAR 185 Introduction to Pharmaceutical Calculations
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MATH 168*
You will perform accurate calculations essential to safe pharmaceutical practice. You will practice pharmacy calculations with the pharmacy requirement of “zero tolerance for calculation errors”. You will determine and calculate medication beyond use and expiration dates. You will interpret problems requiring conversions between systems of measures in pharmacy.

PHAR 186 Pharmaceutical Products 1
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): APHY 160, MTER 100, PHAR 179
You will be introduced to pharmacy products prescribed in Canada. Your studies will focus on major classes of prescription medications used in the field of pharmacy (anti-infective, nervous system, respiratory, gastrointestinal and genitourinary). You will become familiar with their classifications, names and use. You will study pertinent pharmacology which apply to the pharmacy technician’s scope of practice.
PHAR 187 Pharmacy Computer Skills
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  MATH 168*, PHAR 179*, PHAR 185*
You will use community pharmacy specific software to perform dispensary functions and understand the role of the computer in pharmacy practice. You will use software to document and manage the data required in pharmacy dispensing. You will generate reports to retrieve information required in pharmacy practice.

PHAR 188 Non-Prescription Products
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  APHY 160, MTER 100, PHAR 179
You will study non-prescription products available in Canada. You will recognize the names, classifications, regulation and uses of commonly used non-prescription drugs. You will explain the scope of practice for pharmacy technicians in using information regarding non-prescription products.

PHAR 189 Dispensing 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  PHAR 183, PHAR 185
You will build on the skills and knowledge you developed in Dispensing 1 (PHAR 183). You will learn how to use the computer for filling advanced prescriptions, including compound prescriptions. You will be introduced to the principles of compounding and will prepare a variety of pharmaceuticals. You will be introduced to routine pharmacy technician tasks in the dispensary and participate in an interprofessional activity.

PHAR 190 Hospital Pharmacy
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PHAR 185
You will explore the practice of pharmacy as it specifically applies to the institutional setting. You will develop an awareness of the guidelines under which hospital pharmacies operate. You will use hospital pharmacy software. You will be introduced to good manufacturing practices (GMP) employed in pharmacy practice.

PHAR 191 Aseptic Techniques
Credit Units: 4.0  Course Hours: 65.0
Prerequisite(s):  PHAR 185, PHAR 189*, PHAR 190*, SFTY 179*
You will learn how aseptic technique in product preparation is a critical component of safe pharmaceutical care. You will learn the principles involved in preparing pharmaceuticals and antineoplastics under aseptic conditions. You will receive group and individualized instruction in the preparation of sterile products under aseptic conditions. You will practice special techniques involved in preparing antineoplastic drugs.

PHAR 192 Pharmacy Management
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PHAR 182, PHAR 184, PHAR 185, PHAR 194*
You will examine the business of retail pharmacy. You will learn about the management, security and operation of community pharmacies. You will study the basics of merchandising and marketing. You will learn how pharmacy location, layout, merchandising, purchasing, inventory management, pricing, and advertising/promotion contribute to pharmacy operations. You will perform calculations for retail pricing and basic accounting. You will study how pharmacy management requires a goal to optimize patient care and the importance of collaboration with the patient and their circle of care.

PHAR 193 Pharmaceutical Products 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PHAR 186
Your studies will focus on major classes of prescription medications used in the field of pharmacy (endocrine, cardiovascular, skeletal-muscular, integumentary, genitourinary, eye and ear). You will become familiar with their classifications, generic names and use. You will study pertinent anatomy, physiology, pharmacology and terminology required to practice as a pharmacy technician. You will recognize the brand and corresponding generic names of 200 of the most prescribed medications in these classes.

PHAR 194 Pharmacy Legislation
Credit Units: 3.0  Course Hours: 45.0
You will be introduced to how pharmacy technicians act within established legislation, regulations, bylaws, policies and standards in pharmacy practice. You will study federal and provincial privacy legislation and its application to pharmacy. You will understand the requirement for pharmacy technicians to have basic entry to practice competencies and model standards of practice. You will be able to recognize and learn how to manage unusual patterns of drug distribution.
PHAR 200 Pharmacology in Nursing
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  NRSG 201*, NRSG 202*, NRSG 203*
Equivalent Course(s):  PHAR 200CE
Your studies will focus on the basic principles of pharmacology and common medication classifications. You will explore general nursing roles and responsibilities related to drug administration. You will identify cultural factors influencing drug therapy. You will learn about adapting drug therapy for children and older adults. You will also learn about and perform correct drug dosage and I.V. rate calculations. You will explore the phenomenon of pain and the implications for nursing care in partnership with clients experiencing pain.

PHAR 202 Pharmacology Review
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  PHAR 202CE
Your studies will focus on a review of the basic principles of pharmacology and common medication classifications. You will explore general nursing roles and responsibilities related to drug administration in Canada. You will identify cultural factors influencing drug therapy. You will review adapting drug therapy for children and older adults, correct drug dosages and IV rate calculations. You will explore the phenomenon of pain and the implications for nursing care for clients experiencing pain.

PHAR 203 Veterinary Pharmacology
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  APHY 281, GENE 182, IMMU 281, MICR 186, VETR 191
Corequisite(s):  VETR 200
Equivalent Course(s):  VETR 290
You will discuss route of drug administration, pharmacokinetics, pharmacodynamics, and how they influence plasma drug levels and drug safety. You will be introduced to common classes of drugs used in veterinary medicine. Emphasis will be placed on the autonomic nervous system drugs, antimicrobials, anti-inflammatory and drugs used in emergency medicine.

PHAR 204 Advanced Pharmacy Dispensing Pre-lab
Credit Units: 2.0  Course Hours: 30.0
Corequisite(s):  PHAR 205
You will study the procedures and expectations of a pharmacy technician when preparing complex prescription orders. You will study pharmacy technician dispensary functions that support the patient and dispensary workflow. This course prepares you for the Advanced Pharmacy Dispensing Lab classes.

PHAR 205 Advanced Pharmacy Dispensing Lab
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  MICR 110, PHAR 183, PHAR 194, PRAC 118, PHAR 208*, PHAR 217*
Corequisite(s):  PHAR 204
You will build on the skills and knowledge you developed in your prerequisite courses. You will learn how to use the computer for filling advanced prescriptions and recording patient monitoring parameters. You will dispense a variety of pharmaceuticals with the focus on practice to the full scope of a pharmacy technician. You will employ the supportive role of a pharmacy technician for advanced pharmacy practice and prescribing authority in Saskatchewan through various practical activities. You will participate in an intraprofessional activity with pharmacy students at the University of Saskatchewan.

PHAR 206 Hospital Pharmacy
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PHAR 185, PHAR 194, PRAC 118
Equivalent Course(s):  PHAR 190
You will explore the practice of pharmacy as it specifically applies to the hospital setting. You will develop an awareness of the guidelines under which hospital pharmacies operate.

PHAR 207 Institutional Pharmacy Lab
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  PHAR 183, PHAR 206*
You will practice institutionally specific tasks employed in the field of pharmacy. You will apply the knowledge gained from pharmacy practice and hospital practice lectures. This course builds on introductory dispensing techniques.

PHAR 208 Pharmaceutical Products 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PHAR 186
Equivalent Course(s):  PHAR 193
This course continues your study of major classes of prescription medications used in the field of pharmacy (endocrine, cardiovascular, skeletal-muscular, integumentary, eye/ear and chemotherapy). You will become familiar with their classifications, names and use. You will study pertinent pharmacology such as allergy class, drug – drug interactions and available dosage forms which apply to the pharmacy technician’s scope of practice.
# Course Descriptions

## PHAR 209 Non-Sterile Compounding Pre-Lab
Credit Units: 3.0  Course Hours: 45.0  
Corequisite(s): PHAR 210  
You will study the regulation of non-sterile compounding. You will review common terminology, references used and documentation requirements. You will examine the use of excipients in compounds and determine the effect of adapting compound formulation records. You will research information required for compounds made in the Non-Sterile Compounding Lab.

## PHAR 210 Non-Sterile Compounding Lab
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): PHAR 204, PHAR 205, PHAR 213*  
Corequisite(s): PHAR 209  
You will build on the skills and knowledge from your prerequisite courses. You will apply information from the lectures in Non-Sterile Compounding. You will be introduced to the principles of compounding and will prepare a variety of pharmaceuticals. You will prepare formulation records using appropriate references. You will use compound records to document your work and transfer them to the pharmacy computer database. You will employ proper tools and techniques to produce quality and elegant pharmaceutical compounds.

## PHAR 211 Sterile Compounding Lecture
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): PHAR 205, PHAR 207, PHAR 213*, PHAR 216  
Corequisite(s): PHAR 212  
You will learn how using aseptic technique in sterile product preparation is a critical component of safe pharmaceutical care. You will learn the principles involved in preparing pharmaceuticals under aseptic conditions. You will learn the theory behind the procedures of sterile compounding.

## PHAR 212 Sterile Compounding Lab
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): PHAR 205, PHAR 207, PHAR 213*, PHAR 216  
Corequisite(s): PHAR 211  
You will receive group and individualized instruction in the preparation of sterile products under aseptic conditions. You will apply the knowledge from your sterile compounding pre-lab lectures to aseptic practice in a lab. You will practice special techniques involved in preparing hazardous sterile preparations. You will prepare and assess sterile products for technique, accuracy and quality of the final product.

## PHAR 213 Advanced Pharmacy Calculations
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): PHAR 205, PHAR 207, PHAR 216  
You will accurately perform advanced pharmacy calculations essential to safe pharmaceutical practice. You will solve pharmaceutical problems related to dilutions and compounding. You will practice pharmacy calculations with the pharmacy requirement of “zero tolerance for calculation errors”. You will apply accurate calculations to advanced prescriptions and check the calculation work of others.

## PHAR 214 Pharmacy Practicum and Career Preparation
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): COMM 291, PHAR 204  
You will identify the steps to becoming a licensed pharmacy technician in Canada. You will prepare a professional resume, be prepared for job interviews and practicums. You will evaluate your employability skills.

## PHAR 215 Pharmacology 3
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): CLIN 240, NURS 294, NRSG 257, NRSG 258, SOCI 201  
Corequisite(s): CLIN 241  
You will demonstrate skills and abilities required to safely prepare and administer medications through the intravenous route. You will interpret diagnostic tests and provide evidence informed patient care related to medication administration. You will recognize medications used in emergency patient care and examine traditional and alternative medications. You will identify the purpose and schedule for specific immunizations and plan patient teaching related to medication administration.

## PHAR 216 Parenteral Product Calculations
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): PHAR 185  
You will accurately perform parenteral calculations essential to safe pharmacy practice. You will solve pharmacy problems related to the preparation and dispensing of parenteral products. You will practice calculations with the requirement of “zero tolerance for calculation errors”.

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PHAR 217 Scope of Practice for Pharmacy Technicians
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): PHAR 182
You will study the pharmacy technician’s scope of practice and its application to pharmacy practice in Saskatchewan. You will understand the supportive role of the pharmacy technician to assist patients in accessing appropriate health care. You will study the importance of practicing to the full scope of a pharmacy technician.

PHAR 264 Administration of Medications
Credit Units: 3.0  Course Hours: 43.0
Prerequisite(s): (PRAC 162, PHAR 160*) or PHAR 201
You will focus on the administration of medications throughout the lifespan in the context of systems and patient safety. Your studies will include aspects of the metric system essential for the calculation of medication dosages for adults and children. You will explore the principles concerning safe administration of medications and learn how to prepare and safely administer medications via the enteral, percutaneous and parenteral (subcutaneous, intramuscular and intradermal) routes.

PHAR 266 Pharmacology
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): PATH 268
Corequisite(s): DHYG 277
Through independent study, class discussions, and practice predicament learning activities, you will identify clients for whom the initiation or continuation of treatment must be modified or is contra-indicated based upon medications.

PHAR 270 Medications and the Older Adult
Credit Units: 2.0  Course Hours: 30.0
Your studies will focus on medication and the older adult. You will review the pharmacokinetics and pharmacodynamics of drugs as they relate to the older adult. You will explore drug interactions, adverse reactions, drug toxicity, polypharmacy and client compliance in relationship to nursing care of the older adult.

PHAR 271 Clinical Drug Therapy
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s): NURS 225
Equivalent Course(s): PHAR 271CE
New research and clinical experience result in ongoing changes in the drug therapy field. As an experienced health care provider, you will review essential information that reflects current clinical drug therapy by examining the common classification of drugs. The course content includes strategies to promote safe, effective and rational drug therapy and non-pharmacological approaches while considering the clients’ individual characteristics.

PHAR 281 Veterinary Pharmacy Skills
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s): PHAR 203, VETR 192
Corequisite(s): PRAC 284
You will be introduced to federal and provincial drug regulations and the implications to veterinary drugs. You will learn how to effectively assist veterinarians with pharmacy-related functions.

PHOT 100 Still Imaging
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): DSGN 104* or DSGN 101
Equivalent Course(s): DGTL 100
Your studies will focus on digital production techniques and processes for creating graphics and still images. Your studies will include content on capture, creation, manipulation, composition and digital delivery. You will create material which can be integrated into a project or digital portfolio.

PHOT 125 Photography 1
Credit Units: 3.0  Course Hours: 45.0
Your studies will focus on a foundational digital single-lens reflex (DSLR) camera image capture. You will learn the importance of image resolution and image file formats. You will study the intricacies of a balanced exposure and photographic composition. Camera operation will be examined through aperture, shutter speed, sensor sensitivity, white balance and focusing techniques.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PHOT 224</strong> Portrait and Product Photography</td>
<td>3.0, 45.0</td>
<td></td>
<td></td>
<td>PHOT 100</td>
<td>Your studies will focus on advanced Digital Single-Lens Reflex (DSLR) camera image capture and the use of off-camera lighting. You will learn about various lighting and composition techniques for capturing professional portraits and stock images. You will develop workflow procedures for sorting, preparing, and exporting your images.</td>
</tr>
<tr>
<td><strong>PHOT 225</strong> Photography 2</td>
<td>3.0, 45.0</td>
<td></td>
<td></td>
<td>GRPH 144</td>
<td>Your studies will focus on advanced Digital Single-Lens Reflex (DSLR) camera image capture, and the use of off-camera lighting. You will learn about various lighting and composition techniques for capturing professional portraits, and stock photography images. You will develop workflow procedures for sorting, preparing, and exporting, of your images. You will prepare industry standard images for inclusion within digital and print-ready files.</td>
</tr>
<tr>
<td><strong>PHYS 102</strong> Applied Physics</td>
<td>4.0, 60.0</td>
<td></td>
<td></td>
<td>MECA 121</td>
<td>Your studies will focus on the basic physics principles of: vectors; Newton's three laws of motion; work, energy, power, impulse and momentum; temperature, heat, and fluid mechanics.</td>
</tr>
<tr>
<td><strong>PHYS 103</strong> Physics 1 for Geomatics</td>
<td>3.0, 45.0</td>
<td></td>
<td></td>
<td>MAT 110</td>
<td>You will study some principles of systematic thinking and problem solving as found in physics and encountered in the fields of Geomatics mapping and surveying. You will practice calculation management involving numbers, vectors and data as found in Newtonian mechanics, work and energy, temperature and thermal stress and strain.</td>
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<tr>
<td><strong>PHYS 104</strong> Physics for Engineering Design and Drafting Technology</td>
<td>3.0, 45.0</td>
<td></td>
<td></td>
<td></td>
<td>You will study vector applications of Newton’s three laws and the conservation of momentum involving free-body and vector diagrams on coordinate reference frames. You will perform an experiment demonstrating Newton’s laws to determine the coefficient of friction between a moving object and its contact surface. You will also study the conservation of energy in the work, power and energy section as well as the static and dynamic properties of fluids.</td>
</tr>
<tr>
<td><strong>PHYS 105</strong> Physics</td>
<td>3.0, 45.0</td>
<td></td>
<td></td>
<td>PHYS 121</td>
<td>Your studies will focus on solving certain physics problems using computational software. You will study vectors, translational and circular motion, work, energy and power, electric forces, electric fields and electric potential and magnetism.</td>
</tr>
<tr>
<td><strong>PHYS 106</strong> Physics</td>
<td>4.0, 60.0</td>
<td></td>
<td></td>
<td>MATH 189</td>
<td>You will be provided with an introduction to physics. Your studies will provide an overview of force electricity, magnetism, and optics. You will gain understanding of mechanical processes and energy exchange. You will also study basic circuitry. In the laboratory experiments you will use problem solving as an integral part of the course. You will receive an overview of the behaviour of light, geometrical optics, and wave optics. In the laboratory, you will explore each of these topics to illustrate the theory.</td>
</tr>
<tr>
<td><strong>PHYS 120</strong> Physics</td>
<td>3.0, 45.0</td>
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<td></td>
<td>PHYS 102</td>
<td>You will study the principles of fluid mechanics, thermometry and calorimetry, thermal properties of matter and vector addition.</td>
</tr>
<tr>
<td><strong>PHYS 121</strong> Physics</td>
<td>3.0, 48.0</td>
<td></td>
<td></td>
<td></td>
<td>Your studies will focus on the principles of vectors, translational and rotational equilibrium, torques, friction, translational motion, angular motion, work, energy, simple harmonic motion, wave motion, wave mechanics, sound, electric forces, electric fields and electric potential and magnetism.</td>
</tr>
</tbody>
</table>

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PHYS 184 Physics
Credit Units: 3.0    Course Hours: 38.0
Equivalent Course(s): PHYS 184CE
You will be introduced to physics concepts applicable to the principles of operating x-ray generating equipment, image formation, and radiation protection.

PHYS 185 Physics
Credit Units: 3.0    Course Hours: 45.0
You will study the principles of basic physics with emphasis on various aviation topics including motion and energy.

PHYS 200 Physics 2 for Geomatics
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s): PHYS 103
Corequisite(s): GEOM 202
You will study elements of advanced concepts in the field of physics. You will study electricity and magnetism, waves, light and special relativity. A major focus is placed on optics. This course is intended to build theoretical knowledge of scientific principles relevant to geomatics.

PHYS 221 Physics 2
Credit Units: 2.0    Course Hours: 30.0
Prerequisite(s): PHYS 120
Your studies will focus on the principles of linear and curvilinear motion, accelerated motion, work, energy and power, translational and rotational equilibrium, torques and friction.

PHYS 222 Physics 2
Credit Units: 3.0    Course Hours: 48.0
Prerequisite(s): PHYS 121
Equivalent Course(s): PHYS 225
You will become familiar with magnetism, thermometry and calorimetry, the first and second laws of thermodynamics, linear and curvilinear motion, impulse and momentum, uniform circular motion, simple harmonic motion, waves and sound, and elasticity.

PHYS 227 Physics: Statics and Strength of Materials
Credit Units: 3.0    Course Hours: 45.0
Equivalent Course(s): SCAL 122
Your studies will focus on the basic principles of statics (including the concepts of vectors, forces and equilibrium in two dimensions) and properties of materials (including stress and strain, elasticity and other mechanical properties). The course concludes with a study of centroids and moments of inertia of cross-sections of structural members.

PHYS 228 Physics: Light, Heat and Sound
Credit Units: 3.0    Course Hours: 45.0
Your studies will focus on the fundamental principles of dynamics, light and illumination, electrical generation and distribution, heat production and transfer, fluid flow, vibration, waves and sound. The basic principles of physics in each of these areas will be studied in the context of building systems applications.

PIPE 100 Pumps and Pipe Fitting
Credit Units: 3.0    Course Hours: 45.0
You will learn the theory and practical application of all types of process pumps and pipe systems.

PIPE 102 Pipe Fabrication Theory
Credit Units: 4.0    Course Hours: 60.0
You will discuss trigonometry as it applies to the piping trades. You will learn piping layout, fabrication and support and sleeving techniques. You will be introduced to the common piping materials utilized within the two trades. You also will define piping system protection and system commissioning.

PIPE 103 Pipe Fabrication Shop
Credit Units: 3.0    Course Hours: 45.0
You will work with copper, plastic and steel piping materials to assemble shop projects. You will apply trigonometry functions for solving piping risers, rolling offsets and equal spread offset piping installations. You will install piping supports and sleeves in accordance to codebook protocols for optimal system protection. Your will pressure test, then activate each project in accordance to local codes and the local authority having jurisdiction.
### PIPE 182 Basic Piping Techniques
Credit Units: 3.0  Course Hours: 45.0
You will learn basic hand skills and the techniques used for piping and pipe joining. Your training will focus on cutting, reaming, swaging, flaring and bending techniques.

### PLAN 179 Menu Development
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): FOOD 170*, SANT 185
You will learn the basic principles of menu planning and standardizing recipes as a tool for maintaining quality, controlling production, and simplifying purchasing. You will also plan various types of menus.

### PLAN 180 Menu Planning
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): MGMT 101
You will study the basic principles of menu planning in conjunction with menu formats and terminology. You will also plan various types of menus.

### PLAN 181 Quantity Food Management
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): FOOD 170
You will learn to manage a large food service operation.

### PLAN 182 Person-Centredness
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): PLAN 182CE
You will be introduced to person-centred planning in the context of program planning and implementation. You will study and practice the skills needed for accurate report writing and documentation.

### PLAN 183 Commercial Menu Planning
Credit Units: 1.0  Course Hours: 15.0
You will study the principles of menu planning in conjunction with menu formats and terminology and develop an understanding of the role the menu plays within a food service establishment. You will design a variety of menus typically found within the commercial food service industry.

### PLAN 200 Food Service Planning and Layout
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): ADMN 285
You will be introduced to the complexities of designing, planning, and developing food service operations that make optimum use of money, materials, manpower and equipment to ensure customer and/or user satisfaction. You will study design, layout, workflow, equipment, food service functional areas, food production and delivery systems, and atmosphere development. You will develop/upgrade a food service facility, using the design/planning process.

### PLAN 281 Visual Media
Credit Units: 2.0  Course Hours: 24.0
Your studies will introduce you to design, branding, and multimedia presentations. The course content directs creative, cohesive design through print and digital media. You will develop skills necessary to communicate a refined aesthetic in business related presentations.

### PLAN 282 Planning and Layout
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): ADMN 285
You will learn the conceptual approach to planning a facility with customer appeal as the primary goal; including planning guidelines, municipal codes, and interior design for hotels and food service operations. You will redesign a foodservice facility, including researching equipment specifications.

### PLAN 286 Wine and Dine Planning
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): FOOD 192, FOOD 194, FOOD 172, FOOD 200*
Building on knowledge you have gained in the theoretical courses you will plan and organize the fine dining project including menu development, recipe standardization, food and beverage cost controls and scheduling.

### PLAN 400 Construction Planning and Scheduling
Credit Units: 3.0  Course Hours: 45.0
You will learn how to schedule work crews, materials, equipment and cash flow for a construction project.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
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</thead>
<tbody>
<tr>
<td>PLMB 100</td>
<td>Gasfitting</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will develop the required skills necessary for the installation of a domestic gas piping system. You will be introduced to the science behind the gas used in industry, along with the code requirements for the industry. The course emphasizes the safety factors involved in working with natural and propane gas and the importance of accurate code interpretation.</td>
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<tr>
<td>PLMB 102</td>
<td>Codebook Theory</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td></td>
<td>You will practice the fundamental use of the National Plumbing Code of Canada (NPC). You will explain the components of a potable water system and a drainage and vent system. You will apply the NPC in sizing the components of drainage and vent system. You will install a domestic plumbing system.</td>
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</tr>
<tr>
<td>PLMB 103</td>
<td>Gasfitting Theory</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will develop the required skills necessary for the installation of a domestic gas piping system. You will be introduced to the gas science applications used in industry, along with the code requirements for proper piping installations. The course emphasizes the safety factors involved in working with natural and propane gas and the importance of accurate code interpretation.</td>
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</tr>
<tr>
<td>PLMB 104</td>
<td>Gasfitting Shop</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>You will develop the required skills necessary for the installation of a domestic gas piping system. You will develop pressure testing protocols used similarly within the gas fitting field. The course emphasizes the safety factors involved in working with natural and propane gas and the importance of accurate code interpretation.</td>
<td></td>
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</tr>
<tr>
<td>PLMB 105</td>
<td>Plumbing Systems</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td></td>
<td>You will study basic plumbing systems in larger buildings. You will learn water supply and wastewater handling. You will also service plumbing fixtures.</td>
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</tbody>
</table>

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<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PLPR 100</td>
<td>Introduction to Public Safety Communications</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Your studies will cover the various roles and responsibilities that make up the field of Emergency Communications. You will learn about the various agencies and how they operate, the gathering of information in emergency settings, and an overview of telephone and radio system operations. You will also discuss professionalism and ethics as they apply to this field. At the end of this course you will have the opportunity to complete the APCO Public Safety Telecommunicator 1 Exam.</td>
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<tr>
<td>PLPR 101</td>
<td>Emergency Services Procedures</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td></td>
<td>Prerequisite(s): PLPR 100*</td>
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<td></td>
<td>Each emergency service, whether police, fire or ambulance is governed by specific laws, by-laws, standards, procedures and regulations. In this course you will examine specific procedures employed by each of the emergency services. Your studies will also include information on responding to traumatic events (disasters).</td>
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<tr>
<td>PLS 122</td>
<td>Single Dwelling Plans, Lighting and Services</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td></td>
<td>Prerequisite(s): BT 100*, BWC 121*</td>
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<td>Your studies will focus on electrical drawings and the installation requirements for single dwelling services. You will learn how to read and interpret construction drawings and apply lighting theory to determine lighting requirements for installations. You will also learn how to calculate the minimum size of service equipment. You will install a typical 100 amp overhead and underground single dwelling service.</td>
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<tr>
<td>PLST 120</td>
<td>Plastic Material Repair</td>
<td>2.0</td>
<td>28.0</td>
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<tr>
<td></td>
<td>Prerequisite(s): SFTY 126*</td>
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<td>You will learn how to repair plastic automotive parts and fibre-reinforced panels.</td>
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</tbody>
</table>
**Course Descriptions**

**PNTG 120 Basic Painting**
Credit Units: 7.0  Course Hours: 100.0
Prerequisite(s): DOOR 120, ELEC 120, SFTY 126*
You will focus on preparing substrate (including sanding, masking, paint stripping and applying primers, surfacers and sealers). The course content includes mixing and applying paint to single and multiple panels, preparing and painting plastics, and cleaning and servicing spray guns, spray booths and air supply systems. You will also learn how to polish new and old finishes, and clean and detail vehicles for delivery.

**PNTG 220 Advanced Painting**
Credit Units: 8.0  Course Hours: 118.0
Prerequisite(s): DOOR 120, GLAS 120, PLST 120, PNTG 120, SFTY 126*, SHME 120
You will learn how to match colour, use blending techniques and do spot repairs. You will also learn how to remove and replace wood grain transfers, decals and pin striping, identify and correct paint defects, and apply tri-coat finishes. Your project will be to paint a vehicle.

**PR 145 Customer Service**
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): PR 145CE
You will examine the value of customer service and retention of customers through the provision of excellent service. The course content includes the principles of good customer service, telephone skills, handling complaints, and dealing with difficult people.

**PR 281 Community Public Relations**
Credit Units: 3.0  Course Hours: 45.0
You will receive instruction in basic public relations theory and practice including public relations writing and media relations. You will learn about the nature of publicity and use basic public relations tools such as news releases, interviews, press conferences, e-newsletters and social media.

**PR 401 Professionalism and Ethics in Law Enforcement**
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): PR 441
You will study essential principles of a professional code of conduct and the importance of developing and maintaining solid ethics.

**PRAC 010 Customer Service Practicum 1**
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): BUS 010*, NAIL 010*
Equivalent Course(s): PRAC 010CE
You will practice nail salon duties and provide quality customer service through teamwork, communications, and professional practices. You will prepare to work as a nail technician by practicing under the direct supervision of an instructor until skills improve to industry standards.

**PRAC 011 Customer Service Practicum 2**
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s): PRAC 010*
Equivalent Course(s): PRAC 011CE
You will demonstrate mastery in performing all nail technician services. You will participate in a mock journeyman evaluation.

**PRAC 104 Practicum 1**
Credit Units: 9.0  Course Hours: 128.0
Prerequisite(s): ECE 100, (HUMD 100 or HUMD 181), HUMD 183, ECE 181
Equivalent Course(s): PRAC 104CE
Building on the skills knowledge and attitudes that you have developed through your courses, you will be introduced to the role of the early childhood educator in a practical setting. You will use knowledge and skills developed in previous courses to observe and record the behaviour of children, to interact with children and adults in a supportive and positive manner, and to guide children’s behaviour using positive guidance strategies.

**PRAC 105 Practicum 2**
Credit Units: 13.0  Course Hours: 194.0
Prerequisite(s): COMM 291, ECE 101, ECE 102, ECE 103, ECE 104, ECE 105, ECE 106, ECE 142, EMPL 180, PRAC 104
Equivalent Course(s): PRAC 105CE
Building on the skills, knowledge and attitudes that you have developed through your courses, you will demonstrate your ability to interact positively with children and adults. You will use your observation skills to plan and prepare developmentally appropriate curriculum. You will implement the curriculum and guide children’s behavior effectively.

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Course Descriptions

PRAC 106 Clinical Practicum
Credit Units: 7.0  Course Hours: 110.0
Prerequisite(s): EMER 155
You will participate in a clinical practicum placement at a Saskatchewan Health Region facility with an assigned practicing registered nurse. This placement includes participation in a hospital orientation, review of relevant policies and procedures, and completions of and compliance with required legal documentation. You will conduct independent patient assessments, use treatment modalities while using hospital equipment. You will demonstrate the various roles and responsibilities of the Primary Care Paramedic as outlined within the National Occupational Competency Profiles (NOCP) for the Paramedic Practitioner of Canada.

PRAC 107 Field Practicum
Credit Units: 18.0  Course Hours: 276.0
Prerequisite(s): EMER 155
You will participate in a field practicum placement at a Saskatchewan Emergency Medical Services (EMS) organization with an assigned practicing paramedic preceptor. This placement includes participation in EMS orientations, review of relevant policies and procedures, and completions of and compliance with required legal documentation. You will conduct independent patient assessments and use treatment modalities while using ambulance equipment. You will demonstrate and meet lifting requirements. You will demonstrate the various roles and responsibilities of the Primary Care Paramedic as outlined within the National Occupational Competency Profiles (NOCP) for the Paramedic Practitioner of Canada.

PRAC 108 Field Practicum 1
Credit Units: 11.0  Course Hours: 171.0
Prerequisite(s): EMER 159
You will participate in a field practicum placement at a Saskatchewan Emergency Medical Services (EMS) organization with a practicing advanced care paramedic preceptor. This practicum will allow you to review and integrate your basic life support (BLS) skills with your advanced care level of practice. You will participate in EMS orientations, review relevant policies and procedures, complete and comply with required legal documentation. You will demonstrate and meet the physical requirements of the profession.

PRAC 109 Clinical Practicum 1
Credit Units: 9.0  Course Hours: 131.0
Prerequisite(s): EMER 159
You will participate in a clinical practicum placement at a Saskatchewan Health Region facility with a practicing registered nurse or physician. You will participate in a hospital orientation, review relevant policies and procedures, complete and comply with required legal documentation. You will demonstrate the various roles and responsibilities of the advanced care paramedic as outlined within the National Occupational Competency Profiles (NOCP) for the Paramedic Practitioner of Canada.

PRAC 110 Venipuncture Practicum
Credit Units: 4.0  Course Hours: 58.0
Prerequisite(s): ETHC 185, PROC 181, PROC 184
You will participate in a supervised clinical experience. The clinical experience will assist you in developing competent venipuncture skills.

PRAC 113 Community Paramedic Practicum
Credit Units: 14.0  Course Hours: 210.0
Prerequisite(s): GERI 100, HLTH 100, HLTH 101, HLTH 102, HLTH 103, MHA 100, PALL 100
Equivalent Course(s): PRAC 113CE
You will participate in a clinical practicum placement with a preceptor. This placement will take place in a variety of community-based client care facilities. You will conduct assessments, develop plans, and care for patients in the community including palliative, mental health, substance abuse, home health, geriatric and dementia patients. You will practice effective communication and function as an effective team member while complying with relevant legislation. This practicum will allow you to apply all skills and knowledge gained in the previous Community Paramedic courses.

PRAC 114 Spa Reception and Retail Practicum
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): SANT 110*, ESTH 101*, BUS 103*
Your studies will focus on telephone skills, processing payments, maintaining records and opening and closing reception duties in a spa. You will practice your reception skills in the spa along with selling products and services, merchandising retail products and managing a spa. You will operate and maintain the spa dispensary.

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### PRAC 115 Orientation Practicum
- **Credit Units:** 2.0
- **Course Hours:** 30.0
- **Prerequisite(s):** APHY 160, DENT 159, DENT 166, DNTL 167, DNTL 168, DNTL 169, DNTL 171, DNTL 172, DNTL 173

In a general dental practice, you will observe the various roles of the dental assistant to prepare you to participate as a member of the dental team. You will observe dental professionals performing various procedures and perform dental assisting skills under the mentorship of a licensed dental assistant. Your mentor(s), in partnership with the dentist will offer feedback and evaluate your employability and dental assisting skills.

### PRAC 116 Practicum 1
- **Credit Units:** 6.0
- **Course Hours:** 84.0
- **Prerequisite(s):** EMER 155

Your placement will allow you to participate in a clinical and/or field practicum placement within the Saskatchewan Health Authority (SHA). You will be assigned a practicing registered nurse and/or paramedic preceptor. Your placement will include participation in an Emergency Medical Services (EMS) and a hospital orientation, a review of relevant policies and procedures, and the completion of and compliance with required legal documentation. You will practice patient assessments, using treatment modalities while utilizing ambulance and hospital equipment. You will demonstrate and meet lifting requirements.

### PRAC 117 Practicum 2
- **Credit Units:** 18.0
- **Course Hours:** 276.0
- **Prerequisite(s):** PRAC 116

You will participate in a clinical and field practicum placement within the Saskatchewan Health Authority (SHA) with assigned practicing registered nurse and paramedic preceptors. Your placement will include participation in a review of relevant policies, procedures, and the completion of and compliance with required legal documentation. You will conduct independent patient assessments, using treatment modalities while utilizing ambulance and hospital equipment. This final field practicum will allow you to apply all skills and knowledge gained in the previous three semesters at the primary care paramedic level. You will work with less direction and intervention from preceptors as you progress towards independent paramedic practice. You will demonstrate and meet lifting requirements. You will demonstrate the various roles and responsibilities of the Primary Care Paramedic as outlined within the National Occupational Competency Profiles (NOCP) for the Paramedic Practitioner of Canada.

### PRAC 118 Community Pharmacy Experience
- **Credit Units:** 3.0
- **Course Hours:** 40.0
- **Prerequisite(s):** COMM 291, MATH 168, PHAR 179, PHAR 182, PHAR 184, PHAR 192, SFTY 179

You will participate in the workflow of a community pharmacy. You will support pharmacy operations and reflect on your role as a pharmacy technician. You will work in the public access area and dispensary of the pharmacy. You will discuss opportunities to practice to your full scope.

### PRAC 121 Industrial Attachment
- **Credit Units:** 0.0
- **Course Hours:** 60.0
- **Prerequisite(s):** SFTY 126*

You will become familiar with the industry as you spend two weeks in an auto body repair shop.

### PRAC 127 Specimen Management Practicum
- **Credit Units:** 7.0
- **Course Hours:** 108.0
- **Prerequisite(s):** SIMU 100

You will participate in a supervised clinical experience. Upon successfully completing this experience, you will be able to perform specimen accessioning and several specific procedures in the clinical laboratory.

### PRAC 128 Phlebotomy Practicum
- **Credit Units:** 5.0
- **Course Hours:** 72.0
- **Prerequisite(s):** SIMU 100

You will participate in a supervised clinical experience. Upon successfully completing this experience, you will be able to perform phlebotomy.

### PRAC 129 Histology & Cytology Preparation
- **Credit Units:** 4.0
- **Course Hours:** 65.0
- **Prerequisite(s):** SIMU 100

You will participate in a supervised clinical experience. Upon successfully completing this experience, you will be able to assist with routine histological/cytological specimen preparation.
## Course Descriptions

### PRAC 130 Microbiology Preparation
Credit Units: 5.0  
Course Hours: 72.0
Prerequisite(s): SIMU 100
You will participate in a supervised clinical experience. Upon successfully completing this experience, you will be able to prepare culture media, autoclave and assist with specimen culture and preparation.

### PRAC 162 Practicum 1
Credit Units: 5.0  
Course Hours: 70.0
Prerequisite(s): (NURS 175 or NURS 170), NURS 163, (NURS 171 or NURS 173), (NURS 172 or NURS 174), APHY 162, SOCI 160
You will have the opportunity to integrate theory and practice in holistic nursing care of individuals who require assistance with activities of daily living in the context of partnership with the client.

### PRAC 165 Health Information Practicum 1
Credit Units: 11.0  
Course Hours: 165.0
Prerequisite(s): HINF 161, PATH 273, COMM 262, APHY 200, CLIN 237
Equivalent Course(s): PRAC 165CE
You will apply your previously learned theory and experience in health information management while working in a health care agency. Your practicum will focus on coding. You will have an opportunity to practice abstracting and presenting data.

### PRAC 171 Orientation to Recreation and Community Development Services
Credit Units: 3.0  
Course Hours: 45.0
Prerequisite(s): RT 170
You will learn how theory relates to practical experience. You will spend four days with a practitioner who is involved in an area of your career interest. You will have the opportunity to have your resume reviewed and your interview skills tested by your host practitioner.

### PRAC 172 Hotel Orientation Practicum
Credit Units: 4.0  
Course Hours: 60.0
Prerequisite(s): HADM 188
Equivalent Course(s): WORK 183
You will participate in a two-week practicum where you will learn about the hotel rooms division. You will spend time at the front desk and in housekeeping.

### PRAC 174 Practicum 1
Credit Units: 8.0  
Course Hours: 120.0
Prerequisite(s): EDUC 180, HUMR 180, SPSY 281, HUMD 101, SEM 106
Equivalent Course(s): PRAC 174CE, WORK 187
You will participate in a four-week practicum in a K – 6 or grade 7-12 classroom setting. You will have the opportunity to apply theory to practice while supporting and assisting the classroom teacher. Under the supervision of the classroom teacher, you will work in basic subject areas with individuals or small groups.

### PRAC 175 Practicum 2
Credit Units: 8.0  
Course Hours: 120.0
Prerequisite(s): EDUC 180, HUMR 180, SPSY 281, HUMD 101, PERS 180, HUMD 100, SFTY 184, CLTR 180, EMPL 180, FMLY 181, COMM 291, SPSY 282, EDUC 181, PRAC 174
Equivalent Course(s): PRAC 175CE, WORK 188
You will participate in a four-week practicum in a K–6 or grade 7-12 classroom setting. You will have the opportunity to apply theory to practice while supporting and assisting the classroom teacher. Under the supervision of classroom teachers, you will work with students who have challenging needs.

### PRAC 176 Core Practicum
Credit Units: 4.0  
Course Hours: 60.0
Prerequisite(s): WORK 192*
Equivalent Course(s): PRAC 176CE
You will spend two weeks in an approved funeral home and participate in assigned duties such as transfer of the deceased, case analysis of body/remains, non-embalming preparations and other duties under the direct supervision of a licensed embalmer and/or funeral director. You will be expected to demonstrate professionalism at all times.

### PRAC 177 Therapeutic Recreation Practicum 1
Credit Units: 9.0  
Course Hours: 128.0
Prerequisite(s): EMPL 180, HUMR 186, THRC 182, THRC 183, THRC 184, THRC 285, THRC 187, THRC 292
Equivalent Course(s): PRAC 177CE
The course provides an opportunity for you to apply knowledge and principles learned in the program. You will develop interpersonal skills, leadership skills and leadership techniques, explore how the agency meets the needs of its clientele and plan, implement and evaluate therapeutic recreation programs.
Course Descriptions

PRAC 182 Work Experience
Credit Units: 0.0  Course Hours: 80.0
You will participate in a work placement to further your understanding of workplace employer needs.

PRAC 184 Work Experience
Credit Units: 0.0  Course Hours: 30.0
To become familiar with the industry and gain practical experience in the welding field, you will spend one week in a welding/fabricating shop. The course is optional and is subject to shop availability.

PRAC 189 Practicum
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s): HLTH 187, HLTH 189, HLTH 190, HLTH 191, HUMR 102, SFTY 175, SFTY 199, SFTY 177*, SFTY 198*
Equivalent Course(s): PRAC 189CE
You will precept or work with an occupational health and safety professional. This experience will allow you to apply the theory and skills you learned in previous courses in a work environment.

PRAC 193 Practicum
Credit Units: 5.0  Course Hours: 80.0
You will participate in a two-week practicum in the retail meat industry. You will develop your general employability and trade-specific skills.

PRAC 200 Customer Service Practicum 1
Credit Units: 8.0  Course Hours: 120.0
Prerequisite(s): HAIR 100*, HAIR 101*, HAIR 102*, HAIR 103*, BUS 101*, HAIR 104*, HAIR 105*, HAIR 106*, HAIR 107*, HAIR 108*, HAIR 111*, HAIR 113*
You will become familiar with salon practices and gain experience in dealing with clients and reinforcing the skills you have practiced on mannequins and other students. You will prepare to work as a hairstylist by practicing under the direct supervision of an instructor.

PRAC 201 Customer Service Practicum 2
Credit Units: 8.0  Course Hours: 120.0
Prerequisite(s): PRAC 200*
You will focus on professionalism in the salon, teamwork and customer service at a basic level.

PRAC 202 Customer Service Practicum 3
Credit Units: 8.0  Course Hours: 120.0
Prerequisite(s): PRAC 201*
You will learn how to become more efficient in your skills in dealing with clients and learning the best practices of salon client consultation. You will prepare to work as a hairstylist by practicing under the direct supervision of an instructor.

PRAC 203 Customer Service Practicum 4
Credit Units: 8.0  Course Hours: 120.0
Prerequisite(s): PRAC 202*
You will develop a clientele and work with co-workers to provide quality customer service. You will prepare to work as a hairstylist by practicing with moderate supervision of an instructor and learn industry professionalism.

PRAC 204 Customer Service Practicum 5
Credit Units: 6.0  Course Hours: 90.0
Prerequisite(s): PRAC 203*
You will gain experience in dealing with conflict and consult with clients independently. You will prepare to work as a hairstylist by practicing with minimal supervision of an instructor.

PRAC 205 Customer Service Practicum 6
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s): PRAC 204*
You will demonstrate mastery in performing all hairstylist services. You will participate in a mock Journeyperson evaluation.

PRAC 208 Practicum
Credit Units: 11.0  Course Hours: 165.0
Prerequisite(s): PROJ 298*, PROJ 299*, ACCT 191, ASRT 180, CAPL 151, CLTR 100, COM 101, COMM 291, COMP 174, COOK 197, FIN 281, FOOD 170, FOOD 171, FOOD 172, FOOD 183, FOOD 192, MATH 281, MGMT 184, NUTR 180, NUTR 186, NUTR 194, PLAN 179, SANT 181, SANT 185, COMP 175*, FOOD 281*, HLTH 200*, HR 280*, MGMT 286*, MKTG 181*, MKTG 283*, NUTR 202*, NUTR 203*, PLAN 181*, PLAN 200*, PROJ 295*
You will be assigned to an acute care, long term care and/or commercial setting for on-the-job training and experience.
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>PRAC 209 Esthetics Customer Service Practicum 1</strong></td>
<td>6.0</td>
<td>90.0</td>
<td>ESTH 103*, ESTH 107*, NAIL 101*, PRAC 114*, BUS 103*</td>
<td>You will become familiar with spa practices and gain experience in dealing with clients and reinforcing the skills you have practiced. You will prepare to work as a skin care technician by practicing under the direct supervision of an instructor.</td>
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<tr>
<td><strong>PRAC 210 Esthetics Customer Service Practicum 2</strong></td>
<td>6.0</td>
<td>90.0</td>
<td>ESTH 104*, ESTH 106*, PRAC 209*</td>
<td>You will learn to become more efficient in your skills in dealing with clients and learning the best practices of spa client consultation. You will prepare to work as a skin care technician by practicing under the direct supervision of an instructor. You will build on the skills you learned in PRAC 209.</td>
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<tr>
<td><strong>PRAC 211 Esthetics Customer Service Practicum 3</strong></td>
<td>6.0</td>
<td>90.0</td>
<td>PRAC 210*</td>
<td>You will gain experience in dealing with conflict and consult with clients independently. You will prepare to work as a skin care technician by practicing with minimal supervision of an instructor. You will build on skills you learned in PRAC 210.</td>
</tr>
<tr>
<td><strong>PRAC 212 Field Practicum 2</strong></td>
<td>34.0</td>
<td>507.0</td>
<td>EMER 281, PRAC 108</td>
<td>You will participate in a field practicum placement at a Saskatchewan Emergency Medical Services (EMS) organization with a practicing advanced care paramedic preceptor. This final field practicum will allow you to apply all skills and knowledge gained in the previous three semesters at the advanced care level. You will work with less direction and intervention from preceptors as you progress towards independent paramedic practice. You will participate in EMS orientations, review relevant policies and procedures, complete and comply with required legal documentation. You will demonstrate and meet the physical requirements of the profession. You will demonstrate the various roles and responsibilities of the advanced care paramedic as outlined within the National Occupational Competency Profiles (NOCP) for the Paramedic Practitioner of Canada.</td>
</tr>
<tr>
<td><strong>PRAC 213 Clinical Practicum 2</strong></td>
<td>13.0</td>
<td>191.0</td>
<td>EMER 281, PRAC 109</td>
<td>You will participate in a clinical practicum placement at a Saskatchewan Health Region facility with an assigned practising registered nurse or physician. You will participate in a hospital orientation, review relevant policies and procedures, complete and comply with required legal documentation. You will provide care for patients in the labour and birth, pediatric, and palliative care units of the hospital. You will demonstrate the various roles and responsibilities of the advanced care paramedic as outlined within the National Occupational Competency Profiles (NOCP) for the Paramedic Practitioner of Canada.</td>
</tr>
<tr>
<td><strong>PRAC 214 Occupational Health Nursing Practice Education</strong></td>
<td>5.0</td>
<td>80.0</td>
<td>NRSG 292</td>
<td>You will be provided with a field work opportunity and spend 80 hours in an occupational health setting, preferably in an industry setting. You will be mentored by a registered nurse who is employed in an occupational setting.</td>
</tr>
<tr>
<td><strong>PRAC 215 Salon Reception and Retail Practicum</strong></td>
<td>4.0</td>
<td>60.0</td>
<td>HAIR 100*, BUS 101*</td>
<td>Your studies will focus on telephone skills, processing payments, maintaining records and opening and closing reception duties in a hair salon. You will practice your reception skills in the salon along with selling products and services, merchandising retail products and managing a salon. You will operate and maintain the hair salon dispensary.</td>
</tr>
<tr>
<td><strong>PRAC 216 Customer Service Practicum 4</strong></td>
<td>1.0</td>
<td>15.0</td>
<td>PRAC 210*</td>
<td>You will demonstrate mastery in performing all skin care technician services. You will participate in a mock journey person evaluation.</td>
</tr>
</tbody>
</table>
### PRAC 244 Practicum 3

**Credit Units:** 13.0  
**Course Hours:** 194.0  
**Prerequisite(s):** ECE 221, (ECE 201 or ECE 202 or SPSY 289)  
**Equivalent Course(s):** PRAC 244CE

The course provides you with an opportunity to gain competence working with children, families and communities in early childhood education programs. Practicum options include: a practicum in an infant program, a practicum in a toddler program, a practicum working with children and supporting a child(ren) with diverse abilities, or a practicum working as a frontline educator. All practicums include reflective journaling and require students to use observation to plan curriculum focused on the needs and interests of children in a particular setting.

Dependent on the practicum chosen, practicum experiences may include creating documentation panels, completing a PPP based on the Ministry of Education’s format, or using the Project Approach to plan a research topic with children.

### PRAC 245 Practicum 4

**Credit Units:** 13.0  
**Course Hours:** 194.0  
**Prerequisite(s):** ADMN 204, COMM 294, ECE 200, ECE 201, ECE 202, ECE 220, ECE 221, ECE 226, HUMD 200, PD 240, PRAC 244, SPSY 289  
**Equivalent Course(s):** PRAC 245CE

The course provides you with an opportunity to gain competence working with children, families and communities in early childhood education programs. Practicum options include: a practicum in an infant program, a practicum in a toddler program, a practicum working with children and supporting a child(ren) with diverse abilities, or a practicum working as a frontline educator. All practicums include reflective journaling and require students to use observation to plan curriculum focused on the needs and interests of children in a particular setting.

Dependent on the practicum chosen, practicum experiences may include creating documentation panels, completing a PPP based on the Ministry of Education’s format, or using the Project Approach to plan a research topic with children.

### PRAC 247 Detoxification Practicum

**Credit Units:** 5.0  
**Course Hours:** 80.0  
**Prerequisite(s):** COUN 154  
**Equivalent Course(s):** WORK 250

You will apply the theory and skills you learned in the program in a real-life social/medical detoxification setting. You will be evaluated based on the core functions an addictions worker performs in a detox setting and on your ability to monitor and assist clients in the withdrawal management process.

### PRAC 253 Assessments in Addictions Services

**Credit Units:** 15.0  
**Course Hours:** 225.0  
**Prerequisite(s):** HLTH 240

You will apply the core functions as an addictions professional within a clinical and community education setting. You will practice the functions related to interpersonal competence, administration skills, screening, intakes, orientation, assessments and treatment planning. You will also examine and design treatment plan activities based on the Developmental Model of Recovery.

### PRAC 254 Treatment Planning in Addictions Services

**Credit Units:** 17.0  
**Course Hours:** 255.0  
**Prerequisite(s):** PRAC 253

You will apply the core functions as an addictions professional within a clinical and community education setting. You will practice the functions of interpersonal competence, administration skills, one to one and group counselling, case management, intervene in crisis situations, present client education, refer clients, manage files and client records and consult with other professionals. You will also examine and facilitate counselling activities based on the Developmental Model of Recovery.

### PRAC 260 Practicum 2

**Credit Units:** 7.0  
**Course Hours:** 110.0  
**Prerequisite(s):** NURS 238, NURS 240, NURS 291, NURS 293, APHY 262, PHAR 160, PHAR 264  
**Equivalent Course(s):** NURS 233

You will have the opportunity to integrate theory and practice in holistic nursing care of individuals requiring rehabilitative and/or supportive nursing care with the client as a partner.

### PRAC 262 Health Information Practicum 2

**Credit Units:** 19.0  
**Course Hours:** 285.0  
**Prerequisite(s):** CLIN 288, HINF 266, COSC 262, HINF 260, HINF 262, HINF 263, HINF 264, HINF 265, STAT 260  
**Equivalent Course(s):** PRAC 262CE

Your practical experience will help you acquire experience working in the health information field. You will develop your professional skills by promoting both the health information profession and program.
Course Descriptions

PRAC 274 Dental Assisting Practicum A
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): CLIN 110, DENT 180, DENT 282, DNTL 174, DNTL 262, PATH 262, RDGR 162, PRAC 115
Equivalent Course(s): PRAC 265
You will collaborate with a dental team in a general dental practice to enhance the development of your clinical skills. You will take responsibility for identifying your own learning needs and apply learning strategies. A focus will be on employability skills and confidently performing chairside dental assistant skills. You will work under the mentorship of a licensed dental assistant who, in partnership with the dentist, will offer feedback and evaluate your dental assisting skills.

PRAC 275 Dental Assisting Practicum B
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): CLIN 111*, DNTL 175*, DNTL 261*, PRAC 274*, RDGR 163*
In a general dental practice, you will perform the roles of the dental assistant to prepare you to transition to an employment situation. You will work under the mentorship of a licensed dental assistant (or faculty member) who, in partnership with the dentist, will offer feedback and evaluate your dental assisting skills.

PRAC 276 Specialization Field Placement
Credit Units: 8.0  Course Hours: 120.0
Prerequisite(s): FOOD 172, MGMT 184
You will be assigned to apply related classroom learning to real world experience in the field of your specialization. Your work experience will complement your academic training.

PRAC 277 Embalming Practicum
Credit Units: 16.0  Course Hours: 240.0
Prerequisite(s): APHY 189, COM 101, COMM 291, ETHC 184, MICR 185, PD 143, ORTN 199, PRAC 176, LEAD 180, WORK 192, PATH 186*, FNRL 180*, FNRL 183*
Equivalent Course(s): PRAC 277CE
You will spend eight weeks in an approved funeral home and participate in all aspects of the embalming process under the direct supervision of a licensed embalmer. You will also participate in restorative art procedures. You will be expected to submit case studies of all embalming and restorative art procedures to your supervisor. You will model professional attitudes and practices in all aspects of your assigned duties.

PRAC 278 Funeral Director Practicum
Credit Units: 16.0  Course Hours: 240.0
Prerequisite(s): FNRL 181, FNRL 281
Equivalent Course(s): PRAC 278CE
You will spend eight weeks in an approved funeral home and participate in funeral arrangements and directing funeral services under the direct supervision of a licensed funeral director. You will model professional attitudes and practices in all aspects of your assigned duties.

PRAC 280 Therapeutic Recreation Practicum 2
Credit Units: 13.0  Course Hours: 194.0
Prerequisite(s): APHY 189, HUMD 188, MTER 180, PRAC 177, PSYC 188, PSYC 189, THRC 188, THRC 281, THRC 284, THRC 289, THRC 293
Equivalent Course(s): PRAC 280CE
You will integrate the knowledge and experience you gained from course work and practical experience. You will apply client assessment techniques, activity analysis and selection, and individual and group program-planning skills. You will also continue to develop your professional skills.

PRAC 281 Therapeutic Recreation Practicum 3
Credit Units: 17.0  Course Hours: 250.0
Prerequisite(s): PRAC 280, SOCI 185, THRC 189, THRC 283, THRC 286, THRC 290, THRC 291, THRC 294
Equivalent Course(s): PRAC 281CE
You will continue to develop your ability to assess clients, design, implement and analyze therapeutic recreation programs and apply effective leadership and professional skills. You will also examine the administrative practices of a therapeutic recreation service and conduct an inservice related to the role of therapeutic recreation.

PRAC 284 Veterinary Technology Senior Practicum
Credit Units: 20.0  Course Hours: 300.0
Prerequisite(s): PATH 201, PATH 202, PHAR 203, VETR 287, ANES 281, PRST 280, RDGR 282, VETR 282, VETR 294, VETR 295
Corequisite(s): PHAR 281
You will spend five weeks in each of two different approved veterinary practices or associated fields (i.e. research facilities). You will have the opportunity to apply the knowledge and skills gained from the program in a real work setting.

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Course Descriptions

PRAC 285 Laboratory Practicum
Credit Units: 8.0  Course Hours: 120.0
Prerequisite(s):  GENE 284, IMMU 280, LABT 281, LABT 282, LABT 283, MICR 281
You will spend four weeks in a selected laboratory site applying acquired skills while participating in an ongoing or novel project. Placements may be in locations outside of Saskatoon; therefore, you may incur extra expenses. If you choose a location outside the province, you are not covered by Saskatchewan Workers’ Compensation.

PRAC 291 Cytology Practicum 1
Credit Units: 24.0  Course Hours: 365.0
Prerequisite(s):  SIMU 282
You will participate in a practical experience in gynecological and non-gynecological cytology and cytopreparatory technique. This will include a comprehensive review of your theoretical knowledge through routine screening, written and slide exercises, case studies and examinations.

PRAC 292 Cytology Practicum 2
Credit Units: 24.0  Course Hours: 365.0
Prerequisite(s):  PRAC 291
You will participate in a practical experience in gynecological and non-gynecological cytology and cytopreparatory technique. This will include a comprehensive review of your theoretical knowledge through routine screening, written and slide exercises, case studies and examinations. You will maintain and build on the competencies achieved during Cytology Practicum 1 (PRAC 291).

PRAC 293 Practicum
Credit Units: 8.0  Course Hours: 120.0
Prerequisite(s):  ORTN 382, PERS 180, SEM 184, SEM 284*
Equivalent Course(s):  PRAC 382CE
You will apply knowledge and principles learned in the program. You will develop the skills needed to work as a disability support worker in a residential, centre-based or community-based agency which provides services to persons with disabilities.

PRAC 294 Cytology Practicum 3
Credit Units: 24.0  Course Hours: 365.0
Prerequisite(s):  PRAC 292
You will participate in a practical experience in gynecological and non-gynecological cytology and cytopreparatory technique. This will include a comprehensive review of your theoretical knowledge through routine screening, written and slide exercises, case studies and examinations. You will maintain and build on the competencies achieved during Cytology Practicum 1 (PRAC 291) and Cytology Practicum 2 (PRAC 292).

PRAC 295 Cytology Practicum 4
Credit Units: 24.0  Course Hours: 365.0
Prerequisite(s):  PRAC 294
You will participate in a practical experience in gynecological and non-gynecological cytology and cytopreparatory technique. This will include a comprehensive review of your theoretical knowledge through routine screening, written and slide exercises, case studies and examinations. You will maintain and build on the competencies achieved during Cytology Practicum 1 (PRAC 291), Cytology Practicum 2 (PRAC 292) and Cytology Practicum 3 (PRAC 294).

PRAC 382 Practicum 1
Credit Units: 8.0  Course Hours: 120.0
Prerequisite(s):  ORTN 382, PERS 180, SEM 184, SEM 284*
Equivalent Course(s):  PRAC 382CE
You will apply knowledge and principles learned in the program. You will develop the skills needed to work as a disability support worker in a residential, centre-based or community-based agency providing services to persons with disabilities.

PRAC 383 Practicum 2
Credit Units: 10.0  Course Hours: 150.0
Prerequisite(s):  EMPL 180, CLTR 100, SFTY 184, HLTH 182, HLTH 104, HUMD 188, HUMS 180, PLAN 182, SEM 284, SPSY 291, SPSY 101
Equivalent Course(s):  PRAC 383CE
You will develop greater independence and expand the skill set needed to work as a disability support worker in a residential, centre-based, or community-based agency providing services to persons with disabilities.
### PRAC 384 Practicum 1
- **Credit Units:** 8.0  
- **Course Hours:** 120.0  
- **Prerequisite(s):** EMPL 180, MGMT 193, ORTN 385, SEM 185, SFTY 184, YCW 187  
- **Equivalent Course(s):** PRAC 384CE  
You will apply knowledge and skills learned in your coursework at a program or agency that provides youth and family services to persons at risk. Under the supervision of the agency, you will develop skills needed to work as a youth and family service worker in a social services, residential, educational, or community agency in Saskatchewan.

### PRAC 385 Practicum 2
- **Credit Units:** 8.0  
- **Course Hours:** 120.0  
- **Prerequisite(s):** COMM 291, HLTH 183, YCW 282, HUMD 188, REHA 281, SEM 282, SOCI 185, YCW 188, YCW 189, YCW 284  
- **Equivalent Course(s):** PRAC 385CE  
Building on the experience you gained in Practicum 1, you will develop greater independence and expand the skill set needed to work as an employee in social services, residential, educational, or community agency that provides youth and family services in Saskatchewan.

### PRAC 398 Practicum 1
- **Credit Units:** 12.0  
- **Course Hours:** 180.0  
- **Prerequisite(s):** HUMR 281, SEM 105, YCW 281, YCW 285  
- **Equivalent Course(s):** PRAC 398CE  
You will acquire extended experience working with program service individuals and families at risk. You will apply the knowledge gained through coursework and build helping skills needed for employment in work settings. You will assist with the assessment, planning, implementation and evaluation of case plans. You will facilitate, evaluate and revise program plans for established agency programs. You will lead agency programs and group work.

### PRAC 399 Practicum 2
- **Credit Units:** 12.0  
- **Course Hours:** 180.0  
- **Prerequisite(s):** ADMN 286, CLTR 180, COUN 180, HUMR 281, PRAC 398, PSYC 188, PSYC 189, SEM 105, SEM 200, SPSY 184, SPSY 290, YCW 281, YCW 283, YCW 285  
- **Equivalent Course(s):** PRAC 399CE  
You will have a second opportunity to acquire extended experience working with human services programs for at risk persons and groups. You will focus on the administration functions that youth care professionals carry out in the workplace. You will learn to develop your leadership, documentation, reporting and project management skills.

### PRAC 484 Community Practicum
- **Credit Units:** 11.0  
- **Course Hours:** 160.0  
- **Prerequisite(s):** COM 104, PHAR 188, PHAR 208, PHAR 209, PHAR 210, PHAR 211, PHAR 212, PHAR 213, PHAR 214  
You will practice as a pharmacy technician intern under the guidance and supervision of preceptor(s) in a community pharmacy. You will apply your knowledge of community pharmacy dispensing to actual practice. You will practice with the computer software systems and resources found in the community pharmacy to deliver professional pharmacy service. You will perform dispensary and front store functions required for pharmacy service. You will maintain patient confidentiality. You will practice to your full scope of practice. Placements will be assigned in locations across the province.

### PRAC 485 Hospital Practicum
- **Credit Units:** 11.0  
- **Course Hours:** 160.0  
- **Prerequisite(s):** COM 104, PHAR 188, PHAR 208, PHAR 209, PHAR 210, PHAR 211, PHAR 212, PHAR 213, PHAR 214  
You will practice as a pharmacy technician intern under the guidance and supervision of preceptor(s) in a hospital. You will demonstrate aseptic technique to prepare sterile drug products. You will perform drug distribution, inventory, and checking functions required of a pharmacy technician in a hospital setting. You will maintain patient confidentiality and demonstrate professional behaviour. You will practice to your full scope of practice. Placements will be assigned in locations across the province.

### PRNT 100 Blueprint Reading
- **Credit Units:** 1.0  
- **Course Hours:** 20.0  
You will study reading and interpreting blueprints.
### Course Descriptions

**PRNT 101 Print Reading**  
Credit Units: 5.0  
Course Hours: 75.0  
Equivalent Course(s): PRNT 184  
Your studies in print reading will include: views, line types, types of drawings and basic welding symbols. You will practice basic drawing interpretation skills.

**PRNT 104 Print Reading**  
Credit Units: 6.0  
Course Hours: 85.0  
You will learn basic drawing skills and how to interpret a variety of drawings. Drawing interpretation is an essential skill because it is the language of the fabrication industry.

**PRNT 105 Blueprint Reading**  
Credit Units: 1.0  
Course Hours: 15.0  
You will study building blueprints. You will identify various symbols, and print types. Finally, you will maintain and store blueprints.

**PRNT 114 Blueprint Interpretation**  
Credit Units: 2.0  
Course Hours: 30.0  
You will develop your ability to read and interpret basic welding and fabricating drawings. The course covers the basic elements of a blueprint, weld symbols, joint types, structural shapes, developing a bill of material and using the Imperial and metric systems of measurement.

**PROC 180 General Laboratory Practice**  
Credit Units: 2.0  
Course Hours: 37.0  
Prerequisite(s): INFC 180  
You will receive the theory and practice required to perform basic procedures in a laboratory. The course content includes laboratory glassware, use of balances, centrifuges, thermal equipment, pH meters, microscopes and solution preparation with related calculations.

**PROC 181 Specimen Collection and Handling**  
Credit Units: 3.0  
Course Hours: 40.0  
Prerequisite(s): INFC 180  
You will learn how to collect, handle and transport various laboratory specimens to ensure the quality of laboratory results. The collection of blood specimens will be emphasized. You will practice capillary and venous collection on adults at various sites in the community.

**PROC 182 Cytology Lab Procedures**  
Credit Units: 4.0  
Course Hours: 61.0  
Prerequisite(s): INFC 180  
You will learn the theory and practice required to perform basic procedures in a laboratory. These include laboratory glassware, pipettes, use of balances, centrifuges and microscopes, and solution preparation with related calculations. Cytologic specimen preparation and staining will be emphasized.

**PROC 183 Introduction to Basic Lab Procedures**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): MTER 180, PROC 180*, PROC 181*  
You will receive the theory and practice required to perform basic procedures in the clinical laboratory areas of specimen management, hematology and clinical chemistry. You will discuss the role of quality assurance including the importance of critical thinking strategies. You will demonstrate techniques for erythrocyte sedimentation rate, preparing and staining peripheral smears, macroscopic urine testing and point-of-care testing.

**PROC 184 Basic Specimen Processing**  
Credit Units: 1.0  
Course Hours: 12.0  
Prerequisite(s): INFC 180, MTER 180  
You will study the theory and practice required to perform basic specimen processing. You will focus on the use of centrifuges and transfer pipettes, specimen accessioning and aliquot techniques.

**PROF 100 Professional Practices 1**  
Credit Units: 4.0  
Course Hours: 60.0  
Equivalent Course(s): COMM 127  
You will study the principles of professional practices incorporating aspects of personal management, ethics, teamwork and time management. You will explore the development of an online professional presence and develop professional communication skills.

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**PROF 200 Professional Practices 2**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): PROF 100  
You will develop the knowledge, skills, and attitudes to be a successful interactive project leader and team member. You will learn to use project management software to manage the interactive development process and the project’s resources. You will learn to develop project milestones and collaborate with team members. Your studies will also include the development of a client proposal and a project communication package.

**PROJ 101 Client Directed Project**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): PROJ 202*, (COMP 216* or DSGN 205*)  
You will develop a project according to an external client’s specifications. You will learn and practice both technical soft skills as you create a project to a client’s specifications and satisfaction. *Note: Students must complete either WORK 106 - Work Experience or PROJ 101 - Client Directed Project

**PROJ 102 Shop Projects**  
Credit Units: 4.0  
Course Hours: 60.0  
Equivalent Course(s): PROJ 180  
Constructing various welding projects will help you develop welding and steel fabricating skills.

**PROJ 104 Project**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): CIRC 102, DGTL 204  
Corequisite(s): TCOM 104  
You will design and construct a working electronic prototype. You will maintain appropriate documentation and provide regular progress updates to your advisor. You will present your research findings in a written report and oral presentation.

**PROJ 105 Media Project**  
Credit Units: 3.0  
Course Hours: 48.0  
Prerequisite(s): MULT 131, AUDI 102, VIDEO 103  
You will select a media project of interest to you and produce it using the knowledge and skills developed in the previous courses. You will gain insight into your future career through an actual production project.

**PROJ 106 Fabrication Projects**  
Credit Units: 6.0  
Course Hours: 95.0  
Prerequisite(s): COAP 174*  
You will fabricate several projects varying in complexity and material requirements.

**PROJ 108 Troubleshooting and Project**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): COAP 174*  
You will practice troubleshooting techniques through applying a logical course of action to problems. Your studies will consist of applied industry-standard, project-based assignments. You will complete an internet protocol (IP)–based project.

**PROJ 110 Project Initiation and Charter Development**  
Credit Units: 1.0  
Course Hours: 15.0  
Equivalent Course(s): PROJ 110CE  
You will learn the terminology, formal processes, and a systematic approach to project management. You will learn to analyze project stakeholders. You will define project requirements, establish project objectives, estimate project scale, determine project constraints and assumptions, and define the project manager’s responsibilities and authority in a charter for a project that is relevant to your workplace.

**PROJ 111 Project Planning, Scheduling & Budgeting**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): PROJ 110*  
Equivalent Course(s): PROJ 111CE  
You will develop practical project planning skills and knowledge through the systematic creation of a comprehensive project plan. You will identify and document project deliverables and tasks, estimate resources, develop a realistic project schedule, and create a complete project budget. You will learn to proactively manage project risks and use project management software.

**PROJ 112 Project Execution and Control**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): PROJ 111*  
Equivalent Course(s): PROJ 112CE  
You will learn how to direct and manage project execution. You will develop the knowledge and skills to track project resources and tasks, evaluate and report project performance, and determine how to recover project variances and control changes. You will learn to plan and control project quality and perform quality assurance. You will also learn how to manage procurement processes and contracts on projects.

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**PROJ 113 Project Leadership & Communications**

Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s):  PROJ 112*  
Equivalent Course(s):  PROJ 113CE  
You will develop practical leadership and communications skills required to manage project teams. You will learn to create, distribute, and store project information, and communicate effectively in mixed media. You will develop and use interpersonal skills to manage stakeholder expectations, motivate team members, negotiate agreements, and proactively manage relationships.

**PROJ 114 Project Closing & Continuous Improvement**

Credit Units: 1.0  Course Hours: 15.0  
Prerequisite(s):  PROJ 113*  
Equivalent Course(s):  PROJ 114CE  
You will develop the knowledge and skills to close a project and you will learn strategies for continuous improvement. You will learn to administer project closing processes and transfer a completed project to operations. You will also learn to adapt a scalable project management model to apply improve project management practices across your organization.

**PROJ 115 Applied Project Management Integration and Evaluation**

Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s):  PROJ 114*  
Equivalent Course(s):  PROJ 115CE  
You will complete a final integration project in which you will apply formal project management process to initiate, plan, execute, control and communicate a project based on lessons learned from all of the courses in the program. You will combine all of the project management processes into a comprehensive project management approach. You will also demonstrate your knowledge of project management concepts and processes on a comprehensive final examination.

**PROJ 115CE App Proj Mgt Integration/Eval**

Credit Units: 4.0  Course Hours: n/a  
Equivalent Course(s):  PROJ 115

**PROJ 122 Projects**

Credit Units: 4.0  Course Hours: 60.0  
Corequisite(s):  EQPT 126  
You will apply the skills and knowledge acquired in EQPT 126 (Tools) to construct shop projects. Hands-on experience will help you acquire skills in using common tools of the trade.

**PROJ 150 Tools Projects**

Credit Units: 2.0  Course Hours: 27.0  
You will apply the skills and knowledge acquired in EQPT 109 (Tools and Equipment) to shop projects. Hands-on experience will help you acquire skills in using common tools of the trade.

**PROJ 184 Project**

Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s):  DRFT 177, HYDR 173, MACH 170, MECH 161, WLDR 153, WLDR 156  
Corequisite(s):  MACH 153, MANU 171, MANU 280, MANU 293, TCOM 104, WLDR 157  
Drawing on skills you have gained throughout your program, you will plan, develop, research, execute and present a manufacturing project. Your studies will also include consideration of contract law and documentation.

**PROJ 200 Production Management**

Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s):  COMP 102, PROF 100  
You will examine various aspects of production management through the development of schedules and budgets. You will arrange for all the logistics of your projects.

**PROJ 201 Dynamic Web Project**

Credit Units: 2.0  Course Hours: 31.0  
Prerequisite(s):  COMP 205  
Equivalent Course(s):  PROJ 201CE  
You will have the opportunity to create a significant final project. The project should be a showcase piece that demonstrates a wide range of your strongest skills. You will develop your project topic in consultation with your instructor.
PROJ 202 Interactive Media Project
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  MULT 204, (DSGN 202* or COMP 204*)
Equivalent Course(s):  PROJ 202CE
You will create a significant final project. The project should be a showcase piece that demonstrates a wide range of your strongest skills. You will develop your project topic in consultation with, and with the approval of, your instructor.

PROJ 204 Computer Interfacing Project
Credit Units: 5.0  Course Hours: 72.0
Prerequisite(s):  CIRC 224, COMP 221, COMP 222, COMP 207*, TCOM 104*
You will design, construct and debug a project based on embedded microcontrollers. Your project will involve interfacing to analog and digital peripherals, keypads, displays and actuators. You will produce a report describing your project.

PROJ 205 Project Management in Occupational Health Nursing
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  NRSG 287
Equivalent Course(s):  PROJ 205CE
You will focus on project management knowledge and application. You will have the opportunity to practice using a project management framework to develop a project management plan for the development and revision of an occupational health and safety program. Your knowledge of needs assessment, gap analysis, and program evaluation skills will be enhanced.

PROJ 206 Capstone Project
Credit Units: 3.0  Course Hours: 45.0
You will apply the engineering concepts and principles to develop a significant initiative or project. Working individually or in small groups, you will use interpersonal, problem solving, and project management skills to propose, conceptualize, design, and demonstrate an engineering project that is both significant and relevant to your field of practice. You will manage and schedule the project with minimal direction. You will develop a presentation appropriate for an industry client and demonstrate the communication skills necessary to defend the technical specifications and the relevance of project in relation to the initial engineering problem.

PROJ 207 Client Directed Project
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  AUDI 203, VIDEO 207, (VIDEO 204 or VIDEO 205 or VIDEO 206)
You will develop a project according to a client's specifications. You will demonstrate technical and soft skills as you develop a project to the client's specifications and satisfaction. *Note: Students must complete either WORK 201-Work Experience or PROJ 207-Client Directed Project

PROJ 208 Business Plan Development
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  FIN 281, MKTG 284*
You will work in a group to develop a new business. You will develop your entrepreneurial, team building, communication, problem solving, delegation and human relations skills.

PROJ 209 Wine and Dine Service
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  PLAN 286*
Equivalent Course(s):  FOOD 286
You will apply your theoretical knowledge to staff and control a full service formal dining room. You will act in various positions and perform duties associated with serving and managing within a dining room environment.

PROJ 210 Wine and Dine Production
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  COOK 197, PLAN 286*
Equivalent Course(s):  FOOD 291
You will receive practical hands-on instruction in all areas of the kitchen related to preparing and serving an a la carte menu.

PROJ 211 Capstone Project
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  ENGL 101
You will conduct an applied research project. Working individually or in small groups, you will integrate the skills, training and knowledge you acquired throughout the program to design, conduct, analyze and present the results of a research project that is both significant and relevant to the library field of practice.

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### Course Descriptions

**PROJ 220 Project Laboratory**

Credit Units: 5.0  
Course Hours: 72.0  
Prerequisite(s): CNST 220  

You will study the various types of sensors and actuators and learn their characteristics, applications and interfacing circuits. You will also learn the methods of applied research. You will choose a computer system and use it for monitoring, measurement, control or robotic application. You will write a proposal that includes the hardware, software, schematics and printed circuits of your chosen project. You will outline the programs and software you will use in your project.

**PROJ 222 Capstone Research Project**

Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): COAP 222, COMP 207, COMP 217, ENGE 221  
Corequisite(s): TCOM 104  

You will apply knowledge you gained in previous semesters. You will conceive and design an original project that incorporates hardware and software. You will research alternative designs, select appropriate strategies and defend your design choices in a final presentation. You will manage the project scheduling and costs to meet broad goals with minimal direction. You will design, construct and test a working prototype; including, a printed circuit board to illustrate the soundness of your design choices.

**PROJ 225 Applied Research Project**

Credit Units: 1.0  
Course Hours: 15.0  
Prerequisite(s): INST 205, INST 228, INST 230, PROJ 227  
Corequisite(s): CNTR 227, INST 234, INST 236, TCOM 104  

You will use project management software to develop an entire project. Working in small groups you will research, plan, design, cost and construct a prototype. Your final step of the project will be to prepare a manual.

**PROJ 227 Project Management**

Credit Units: 2.0  
Course Hours: 30.0  
Prerequisite(s): CAD 281, ELTR 289, ENGM 193, MANU 288, THER 181, ENGM 289, HYDR 283, THER 284*  
Corequisite(s): AIR 288, CAD 282, ENGM 280, ENGM 281, INST 288, PROJ 287, TCOM 104  

The course provides instruction in the application of basic knowledge in the design of “real life” engineering problems from local industries. Based on your knowledge of several previous and concurrent courses, you will learn how to select and define a technical project, find design solutions for the problem and then prepare and present your technical solutions to the industrial client.

**PROJ 228 Applied Research: Capstone Project**

Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): ADMN 104, ADMN 105, BLDG 220, (CNST 232 or CNST 233), CODE 201, DRFT 210, DSGN 232, PHYS 227, PHYS 228, SRVY 228, TCOM 102, TCOM 103, (BLDG 221*, DRFT 233*) or (BLDG 250*, DRFT 234*)  

You will use the technical problem-solving process, advanced research skills, and knowledge acquired in previous courses to complete an applied research project. You will present and defend your unique solution to an architectural design problem in a written report and oral presentation.

**PROJ 284 Business Development**

Credit Units: 3.0  
Course Hours: 45.0  

You will work in a group to develop a new business. You will develop your entrepreneurial, team building, communication, problem solving, delegation and human relation skills.

**PROJ 287 Project Management**

Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s): MGMT 222  

You will be introduced to project management. You will examine the basic theory of project planning and control, from project initiation to project close out. You will apply research techniques and various tools to practice project management theory in a variety of projects. You will practice skills using project management software.

**PROJ 288 Project**

Credit Units: 4.0  
Course Hours: 57.0  
Prerequisite(s): CAD 281, ELTR 289, ENGM 193, MANU 288, THER 181, ENGM 289, HYDR 283, THER 284*  
Corequisite(s): AIR 288, CAD 282, ENGM 280, ENGM 281, INST 288, PROJ 287, TCOM 104  

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Course Descriptions

PROJ 289 Applied Research 1
Credit Units: 9.0  Course Hours: 140.0
Prerequisite(s): COMP 175, COMP 179, CHEM 179, CHEM 282, CHEM 284, CHEM 290, LABT 187, LABT 287, MATH 192, MATH 289, STAT 185, SFTY 185, PHYS 187
You will be working in partnership with a government or industrial organization to complete an independent research project. You will work with a chemist, chemical engineer, or chemical technologist to design the experiments and manage the project. You will maintain a logbook, use statistical tools to assess your results and troubleshoot minor equipment problems. You will demonstrate good communication skills and work as a team member. You will demonstrate responsibility, initiative and accountability.

PROJ 290 Applied Research 2
Credit Units: 2.0  Course Hours: 30.0
You will use computer applications to analyze the data obtained during your project. You will conduct a review of recent literature relevant to your project. You will prepare a technical report and PowerPoint presentation.

PROJ 295 Food Service Operation Planning
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): SANT 185, FOOD 170
You will apply your food service management skills to plan and organize the grand opening, operation and closing of a food service operation.

PROJ 296 Coffee Shop Management
Credit Units: 7.0  Course Hours: 106.0
Prerequisite(s): PROJ 295
You will apply your food service management skills to direct and control the grand opening, operation and closing of a retail food operation for one month. You will also build on your knowledge of using a computerized point of sale system.

PROJ 297 Project
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): GRND 200, MINE 109, MINE 110, MINE 201, MINE 203, MVNT 200, PROJ 287
Corequisite(s): GRND 201, MINE 204, MVNT 201, SRVY 206, TCOM 104
Based on your knowledge, you will learn how to select and define a technical project. Your practice will include finding design solutions for a problem and then preparing and presenting your technical solutions to the mining client.

PROJ 298 Food Service Operation Management 1
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): FOOD 170, PROJ 295*
Equivalent Course(s): PROJ 296
You will apply your food service management skills to direct and control the grand opening, operation and closing of a retail food service operation.

PROJ 299 Food Service Operation Management 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): FOOD 170, PROJ 295*
Equivalent Course(s): PROJ 296
You will apply your food service management skills to monitor the procurement, costs and preparation of the grand opening, operation and closing of a retail food operation.

PROJ 400 Capstone Project
Credit Units: 6.0  Course Hours: 90.0
You will build on the project management, construction science, and human resource skills developed in previous courses and complete a capstone project. You will select a construction project and prepare project plans, schedules, budgets and project monitoring documents. Your project will include quality control mechanisms, safety considerations and close-out procedures. The course culminates with the presentation of your capstone project.

PROJ 401 Applied Research in Resource Management
Credit Units: 2.0  Course Hours: 30.0
You will conduct a research project. You will integrate the skills, training and knowledge you acquired throughout the program to design, conduct, analyze and present the results of a resource management project.

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### PROJ 403 Leading Projects
Credit Units: 3.0  Course Hours: 45.0
You will develop the knowledge and skills to lead a project to successful completion. Your studies will combine operational aspects of managing a project with leadership qualities required to inspire a project team and to provide interaction with the project’s key stakeholders. You will develop the knowledge and skills to analyze the feasibility of a project, develop processes to ensure the project work gets done, lead and motivate the project team, and create contingency plans to mitigate risk.

### PROJ 600 Agile Project Management for IT
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): COMP 600, CDBM 600
You will learn how to plan and execute an agile project while creating a working piece of software. Working in groups you will learn how to plan project sprints and conduct effective scrum meetings. You will learn how to track progress using standard agile tracking tools and techniques.

### PROJ 601 Capstone Project
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): BCOM 600, ADMN 602, COMP 602, MGMT 606
You will apply the supply chain management concepts and principles to develop a significant initiative or project. Working individually or in small groups, you will use interpersonal, problem solving, and project management skills to propose, conceptualize, design, and demonstrate a supply chain management project that is both significant and relevant to your field of practice. You will manage and schedule the project with minimal direction. You will develop a presentation appropriate for an industry client and demonstrate the communication skills necessary to defend the specifications and the relevance of project in relation to the initial supply chain management problem.

### PROJ 602 Capstone Project
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): COSC 604, CDBM 601, CWEB 603*
You will learn how to work in a group to plan and execute a major IT project. You will manage and monitor the project and produce documentation to communicate effectively with your stakeholders.

### PROJ 603 Capstone Project
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): CSEC 607*, INTL 601*
You will learn how to work in a group to plan and execute a major information technology (IT) project. You will manage and monitor the project and produce documentation to communicate effectively with your stakeholders.

### PROP 141 Process Simulations 1
Credit Units: 1.0  Course Hours: 15.0
You will be introduced to the operation of computer controlled systems used to operate plant equipment. You will have the opportunity to run a heat exchanger using simulation.

### PROP 198 Plant and Process Operations
Credit Units: 2.0  Course Hours: 30.0
You will learn about industrial processes used to manufacture a variety of products. You will study the equipment used in these industrial processes.

### PROP 280 Process Simulations 2
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): PROP 141
Using foundational knowledge learned in PROP 141, you will build on your ability to operate computer controlled systems used to operate plant equipment. You will be introduced to a new boiler simulation.

### PROP 290 Process Simulations 3
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): PROP 280
You will build on abilities developed in PROP 280 by programming computer controlled systems used to operate plant equipment. You will operate boiler simulations with multiple I/O devices.

### PRPL 284 Public Relations and Programming
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): PRPL 180, PRPL 284CE
You will examine ways of marketing the library to the community. You will discuss current topics relating to programming for the entire community. Planning and executing visual displays and programs will be emphasized.
Course Descriptions

PRST 280 Veterinary Parasitology
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  MICR 186
You will study the helminth, protozoan and arthropod parasites that affect animals and learn which parasites are important in North America. Your studies will focus on diagnostic features, life cycles, pathogenesis, control and zoonotic potential. You will learn to perform fecal exams and to identify various parasite lifecycle stages during laboratory exercises.

PSYC 100 Salon Psychology
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  SUPP 144
You will study various personality theories of psychologists. The course focuses on the practical salon application of these theories to salon situations.

PSYC 101 Introduction to Psychology
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  PSYC 101CE
You will learn the theories and concepts that form the foundation of psychology as a science. You will explore the study of human behaviour by examining concepts including: social psychology, perception, sensation, learning, memory, human development, motivation, emotion, states of consciousness, cognition, personality, intelligence, psychological disorders, and the relationship between health and stress.

PSYC 102 Introduction to Psychology 1
Credit Units: 3.0  Course Hours: 45.0
You will learn about the history and evolution of psychology as a science. You will define and differentiate various research methods and theoretical perspectives. You will explore the study of human behaviour by examining concepts including: human development, personality, social psychology, psychological disorders and treatments, and the relationship between health and stress.

PSYC 103 Introduction to Psychology 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PSYC 102
You will learn about the history and evolution of psychology as a science. You will learn to differentiate between various research methods and theoretical perspectives. You will explore the study of human behaviour by examining concepts including: perception, sensation, states of consciousness, learning, memory, thinking, reasoning, language, intelligence and intelligence testing, motivation, emotion, and the biological and neurological foundations of behaviour.

PSYC 104 Psychology 1
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PSYC 160
You will be provided with an introduction to the field of psychology. The course is structured to provide you with an increased awareness of human behavior. Included in the course is a general introduction to psychology including theories of learning, cognition, and motivation.

PSYC 160 Psychology 1
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PSYC 160CE
Your studies will include the theories and concepts that form the foundation of psychology as a science. You will explore the study of human behaviour by examining concepts including: perception, sensation, learning, memory, intelligence, motivation, emotion, states of consciousness, personality, and the relationship between health and stress.

PSYC 163 Healthy Life Span Development
Credit Units: 3.0  Course Hours: 38.0
Equivalent Course(s):  NEPS 216
You will be introduced to the study of human development over the life span from conception to death. You will examine selected theories and processes of the growth and development of individuals throughout the life span within the context of family and community. You will discuss health promotion and selected prevalent health issues for each domain of the life span in relation to psychiatric nursing practice.

PSYC 184 Introductory Psychology
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  PSYC 184CE, PSYC 188
You will be provided with an introduction to the field of psychology. The course is structured to provide you with an increased awareness of human behavior. Included in the course is a general introduction to psychology including theories of learning, cognition, and motivation.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 188</td>
<td>Psychology A</td>
<td>3.0</td>
<td>40.0</td>
<td></td>
<td>PSYC 184, PSYC 188CE</td>
<td>You will be introduced to the scientific study of human behaviour. You will study psychology as a discipline of neuroscience and behaviour, sensation and perception, states of consciousness, learning and memory.</td>
</tr>
<tr>
<td>PSYC 189</td>
<td>Psychology B</td>
<td>3.0</td>
<td>40.0</td>
<td>PSYC 188</td>
<td>PSYC 189CE</td>
<td>You will continue to examine the scientific examination of human behaviour introduced in PSYC 188, Psychology A. You will study intelligence, cognition and language, motivation and emotion, social psychology personality, health and stress.</td>
</tr>
<tr>
<td>PSYC 190</td>
<td>Introduction to Psychology 1</td>
<td>3.0</td>
<td>48.0</td>
<td></td>
<td></td>
<td>You will study mental processes and behaviour. These include theoretical approaches, history and methods of study as well as major research findings within various subfields of psychology including sensation and perception, consciousness, learning and memory.</td>
</tr>
<tr>
<td>PSYC 280</td>
<td>Psychology of Grief</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>PSYC 280CE</td>
<td>You will discuss the emotional and psychological needs of the bereaved as well as appropriate communication skills and attitudes. You will be introduced to communication with and attitudes appropriate to grieving clients.</td>
</tr>
<tr>
<td>PSYC 290</td>
<td>Introduction to Psychology 2</td>
<td>3.0</td>
<td>48.0</td>
<td>PSYC 190</td>
<td></td>
<td>You will study mental processes and behaviour. These include major research findings within various subfields of psychology including cognition, motivation, development, personality and psychological disorders.</td>
</tr>
<tr>
<td>PSYN 208</td>
<td>Informatics for Health Care Professionals</td>
<td>3.0</td>
<td>39.0</td>
<td></td>
<td></td>
<td>You will learn about the health care professional’s need for current technological knowledge and skills. You will learn to use relevant information and knowledge to support evidence-based health care. Using a hands-on, problem solving approach, you will learn to use information and communication technologies to support information synthesis within the current health care setting.</td>
</tr>
<tr>
<td>PSYN 209</td>
<td>Physical Assessment</td>
<td>3.0</td>
<td>39.0</td>
<td></td>
<td>NURS 227</td>
<td>You will establish a foundation for the development of wholistic physical health assessment skills. You will learn interviewing techniques and head-to-toe physical assessment of adults and specialty populations. You will have an opportunity to practice comprehensive physical health assessments.</td>
</tr>
<tr>
<td>PSYN 210</td>
<td>Health and Mental Health Literacy</td>
<td>2.0</td>
<td>26.0</td>
<td></td>
<td></td>
<td>You will be introduced to concepts of teaching and learning. You will examine a literacy model and develop strategies to support mental health literacy across selected populations.</td>
</tr>
<tr>
<td>PSYN 300</td>
<td>Research for Evidence-Based Nursing Practice</td>
<td>3.0</td>
<td>45.0</td>
<td>STAT 202</td>
<td></td>
<td>You will have an opportunity to broaden your understanding of professional inquiry through the acquisition of knowledge and practice of research concepts. You will be able to critically evaluate existing research as a foundation for evidence-based practice to advance the nursing profession.</td>
</tr>
<tr>
<td>PSYN 303</td>
<td>Economic, Social &amp; Political Influences in Psychiatric Nursing</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td>You will explore the professional role of the registered psychiatric nurse (RPN) in relation to economic, social and political influences in RPN practice. You will apply legal, moral and ethical principles to analyze the current issues that have implications in the delivery of psychiatric nursing practice.</td>
</tr>
</tbody>
</table>
### Course Descriptions

**PSYN 304 Integrating Leadership & Management in Psychiatric Nursing**

Credit Units: 3.0  
Course Hours: 45.0  
You will examine leadership and management theory and skills in psychiatric nursing practice in the Canadian context. You will explore, analyze, synthesize and demonstrate the application of leadership and management in psychiatric nursing practice from personal, professional and organizational perspectives.

**PSYN 306 Transition to Professional Practice**

Credit Units: 3.0  
Course Hours: 39.0  
You will integrate theory and practice with an emphasis on evidenced-informed practice and leadership in preparation for assuming the role of the registered psychiatric nurse. You will explore topics such as e-mentoring, e-portfolios, interprofessional teams, self-care considerations, continuing competence and professional development.

**PSYN 307 Addictions**

Credit Units: 3.0  
Course Hours: 45.0  
You will learn about selected addiction assessment tools, types of addictions, psychiatric nursing interventions, and concepts in health promotion, prevention, and harm reduction. You will examine theories and models including medical, disease, and biopsychosocial, and the various treatment options available.

**PSYN 308 Open Elective 1**

Credit Units: 3.0  
Course Hours: 39.0  
An open elective may include any three-credit university course or SASK POLYTECH approved course.

**PSYN 309 Open Elective 2**

Credit Units: 3.0  
Course Hours: 39.0  
Equivalent Course(s): SOCI 260  
An open elective may include any three-credit university course or SASK POLYTECH approved course.

**PSYN 400 Consolidated Collaborative Practice**

Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): PSYN 208, PSYN 300, PSYN 303, PSYN 304, PSYN 308, ENGL 100, STAT 202, (SOCI 100 or PSYC 101), (PSYN 209, PSYN 210, PSYN 307, SOCI 200 or PSYN 309)  
You will appraise and reflect on your ability to synthesize and apply the Bachelor of Psychiatric Nursing program’s theoretical concepts during the work experience. You will critique your ability to demonstrate relevant psychiatric nursing competencies.

**PYSL 180 Plant Physiology**

Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): BOTA 183  
Corequisite(s): PYSL 181  
You will examine plant function and interactions with the environment. You will analyze plant tissue and cellular function with respect to plant growth regulators, mineral nutrition, water, and environmental factors. You will also examine plant metabolism including cellular respiration and photosynthesis reactions.

**PYSL 181 Plant Physiology Lab**

Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): BOTA 184  
Corequisite(s): PYSL 180  
You will examine the effects of plant growth regulators, gravity, light, and mineral deficiency on plants. You will conduct experiments demonstrating the processes of osmosis, respiration, and photosynthesis. You will also manage plants in growth chambers.

**QC 100 Quality Assurance**

Credit Units: 1.0  
Course Hours: 15.0  
You will study the role of quality and elements of quality assurance in today’s welding industry.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>QC 179</td>
<td>Quality Assurance and Control</td>
<td>4.0</td>
<td>60.0</td>
<td>SAFE 180</td>
<td></td>
<td>You will examine the need for and application of quality management as it applies to the bioscience field. Your studies will focus on quality practices in basic research and development, non-clinical safety testing, manufacturing, and food safety. You will also consider ethics and professional conduct.</td>
</tr>
<tr>
<td>QC 191</td>
<td>Quality Assurance and Control</td>
<td>5.0</td>
<td>70.0</td>
<td></td>
<td></td>
<td>You will learn the importance of quality assurance and quality control in the mining industry. Your studies will focus on the statistical and operational aspects of quality assurance and quality control in activities such as sample handling, radiation monitoring, instrumentation, analyses as well as record keeping and management. You will discuss quality assurance protocols such as International Standards Organization (ISO) used in the mining industry.</td>
</tr>
<tr>
<td>QC 193</td>
<td>Best Practices in Point of Care Testing</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td></td>
<td>You will study roles and responsibilities of the health care team in point of care testing (POCT). You will learn steps necessary to implement POCT, principles of quality management and correlation of POCT results.</td>
</tr>
<tr>
<td>QC 194</td>
<td>Quality Management</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td></td>
<td>You will receive an overview of methods used to ensure the quality of laboratory results. Quality assurance and quality control techniques will be emphasized.</td>
</tr>
<tr>
<td>QC 250</td>
<td>Quality Control in Laboratories</td>
<td>4.0</td>
<td>60.0</td>
<td>STAT 281</td>
<td>QC 251</td>
<td>You will be provided with an in-depth understanding of the quality assurance methods used in industries and organizations. You will focus on the statistical and operational aspects of quality assurance in activities (such as sample handling, instrumentation, analysis, record keeping and management). You will discuss the quality assurance protocols used by various international agencies including International Standards Organizations (ISO), the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), and Good Laboratory Practices (GLP).</td>
</tr>
<tr>
<td>QC 251</td>
<td>Quality Control in Laboratories Project</td>
<td>1.0</td>
<td>15.0</td>
<td>STAT 281</td>
<td>QC 250</td>
<td>You will conduct a small-scale in-house validation on a common laboratory instrument. You will analyze the experimental findings and determine the optimal parameters for this instrumentation. You will write a standard operating procedure for the operation of this instrumentation.</td>
</tr>
<tr>
<td>QC 298</td>
<td>Quality Control in Laboratories</td>
<td>5.0</td>
<td>80.0</td>
<td></td>
<td></td>
<td>You will be provided with an in-depth understanding of the quality assurance methods used in industries and organizations. You will focus on the statistical and operational aspects of quality assurance in activities (such as sample handling, instrumentation, analysis, record keeping and management). You will discuss the quality assurance protocols used by various international agencies including International Standards Organizations (ISO), the Environmental Protection Act (EPA), the Food and Drug Administration (FDA), the Association of Analytical Communities (AOAC) and Health Canada (HC).</td>
</tr>
</tbody>
</table>
QM 220 Quantitative Methods for Accountancy
Credit Units: 4.0  Course Hours: 64.0
Prerequisite(s): STAT 120
Equivalent Course(s): ACP 423
This course emphasizes the application of quantitative methods in the solution of business problems. This includes the selection of appropriate methods, formulation of problems in quantitative terms, performance of necessary computation, and the interpretation of results. The variety and depth of the quantitative methods are in accordance with CGA (Certified General Accountants) Association requirements.

RADI 102 Radio Fundamentals
Credit Units: 3.0  Course Hours: 45.0
You will describe microwave and digital radio systems as well as waveguides and common antennas. In a lab setting you will test digital-radio low voltage converters and alarms. Your studies will also include troubleshooting digital radio and transmit-receive (Tx-Rx) stations equipment bays.

RDBG 184 Radiobiology and Protection
Credit Units: 2.0  Course Hours: 30.0
You will be introduced to radiobiology and protection. You will acquire the knowledge and develop the skills needed to practice basic radiation protection during radiological examinations. The course content includes the biological effects of ionizing radiation, basic radiation protection principles and concepts, radiation monitoring, radiation protection guidelines and safety regulations, and techniques of minimizing patient dose during diagnostic imaging.

RDGR 161 Radiography 1
Credit Units: 2.0  Course Hours: 30.0
You will study the principles of radiation physics, biology, chemistry and safety. You will study the theory supporting exposing, processing and interpreting dental images. You will discuss methods to manage various clients who require dental images. Working on dental manikins, you will learn to prepare film and phosphor storage plates (PSP) to take dental bitewing images for diagnostic purposes. You will learn about quality assurance procedures. You will be introduced to radiographic film processors and digital imaging software.

RDGR 162 Radiography 2
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): DENT 166, DNTL 167, RDGR 161
You will study the theory supporting the exposing, processing and interpreting of periapical, panoramic and occlusal images. You will learn how to take dental periapical and panoramic images for diagnostic purposes while following radiation safety measures and quality assurance procedures. You will also operate automatic radiographic film processors and digital imaging software. You will learn to mount dental images.

RDGR 163 Radiography 3
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): RDGR 162
You will produce maxillary and mandibular images on a manikin using the occlusal technique. You will also mount full mouth surveys and identify anatomic landmarks. You will produce full mouth radiographic surveys on manikins using the paralleling and bisecting techniques.

RDGR 179 Radiographic Technique 1
Credit Units: 5.0  Course Hours: 68.0
Prerequisite(s): RGAN 180*
You will learn the theory and develop the skills of radiographic positioning and image critique for the appendicular skeleton.

RDGR 180 Radiographic Technique 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): RDGR 179
Building on the theory and skills learned in RDGR 179 (Radiographic Technique 1) you will learn the theory and develop the skills of radiographic positioning and image critique for the axial skeleton.

RDGR 183 Diagnostic Imaging 1
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): APHY 101, APHY 102, VETR 182, VETR 187, ANIM 282*
You will receive instruction and experience in radiation safety, patient positioning, diagnostic imaging techniques and evaluating images for diagnostic acceptability. You will learn both film and digital processing. You will maintain equipment, recognize and troubleshoot malfunctions.
### RDGR 190 Fluoroscopy
Credit Units: 2.0  Course Hours: 35.0  
Prerequisite(s): RDGR 180

You will learn how fluoroscopic equipment and related accessories function and operate. You will learn how to describe various fluoroscopic examinations within the department and in the surgical suite. You will also learn how to identify the radiographic appearance of organs and structures for various views and projections used in fluoroscopic examinations.

### RDGR 267 Radiology Theory
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): BIOL 100, BIOL 101  
Corequisite(s): RDGR 268

You will study the principles of radiation physics, biology, chemistry and safety and will describe theories related to exposing, processing, and mounting radiographs. You will learn how to interpret radiographs. You will also discuss effective client management related to dental radiography.

### RDGR 268 Dental Imaging Techniques
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): ANAT 163  
Corequisite(s): RDGR 267  
Equivalent Course(s): RDGR 260, RDGR 263

While observing radiation safety protocols, you will develop skill in exposing and processing high quality dental images using darkroom and digital techniques.

### RDGR 282 Diagnostic Imaging 2
Credit Units: 1.0  Course Hours: 15.0  
Prerequisite(s): RDGR 183, ANIM 282  
Corequisite(s): ANES 281, VETR 282, VETR 295

You will review your knowledge of common diagnostic imaging procedures of both small and large animals prior to entering the clinical rotations portion of the Veterinary Technology program.

### RDGR 283 Advanced Radiographic Technique 1
Credit Units: 2.0  Course Hours: 32.0  
Prerequisite(s): RDGR 180

You will learn about radiographic techniques used for localizing foreign bodies in the human body. You will discuss variations in techniques used for pediatric and geriatric patients. You will also learn the basic principles used in trauma radiography and mobile radiography.

### RDGR 284 Advanced Radiographic Technique 2
Credit Units: 2.0  Course Hours: 35.0  
Prerequisite(s): RDGR 180

You will learn how to describe specialized equipment and examinations of various body systems. You will also learn how to identify the radiographic appearance of specialized structures and/or systems specific to views and projections used in these examinations.

### RDTM 280 Computed Tomography
Credit Units: 2.0  Course Hours: 35.0  
Prerequisite(s): IMRC 183, RSAP 180

You will learn about the history and development of computed tomography (CT) scanners. You will learn about the specialized equipment and accessories used for CT scanning. You will study the principles of acquisition, reconstruction, post-processing and storage of CT images. You will learn about image quality, artifacts and quality control procedures, as well as use of contrast media and radiation dose in CT.

### RDTM 281 Sectional Anatomy
Credit Units: 3.0  Course Hours: 38.0  
Prerequisite(s): APHY 282, RGAN 180

You will learn to identify the sectional anatomy of the head, neck, chest, abdomen and pelvis on computed tomography (CT) and magnetic resonance imaging (MRI) images in transverse, coronal and sagittal planes. You will discuss topographical anatomy to aid in sectional anatomy and basic CT procedures.

### REHA 281 Program Planning
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s): YCW 187  
Equivalent Course(s): REHA 281CE

Building on YCW 187, Youth Care Practices 1, you will apply the problem solving process to planning supportive interventions to client groups. You will examine needs assessment and decision making as applied to group services in youth and family services. You will develop program goals and objectives, identify learning activities, write activity plans, and develop program resources. You will develop a 15 hour program for at risk youth and you will create a program manual to support delivery of the program.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RENO 220 Architectural Drafting: Renovation Working Drawings</strong></td>
<td></td>
<td>4.0</td>
<td>60.0</td>
<td>DRFT 224</td>
<td>DRFT 231, DRFT 252</td>
<td>As part of a team, you will create architectural drawings for a house renovation. You will also study construction systems of the past to inform your design and drafting decisions.</td>
</tr>
<tr>
<td><strong>RENO 222 Design Studio: Commercial Adaptive Re-use</strong></td>
<td></td>
<td>4.0</td>
<td>60.0</td>
<td>DRFT 224</td>
<td>CODE 201</td>
<td>DSIGN 233</td>
</tr>
<tr>
<td><strong>RFRG 103 Refrigeration Systems 2</strong></td>
<td></td>
<td>4.0</td>
<td>60.0</td>
<td>ELEC 149, SAFE 104</td>
<td></td>
<td>You will practice workplace safety. You will troubleshoot and maintain refrigeration systems.</td>
</tr>
<tr>
<td><strong>RFRG 104 Refrigeration Systems 1</strong></td>
<td></td>
<td>3.0</td>
<td>45.0</td>
<td>THER 182*</td>
<td></td>
<td>You will be introduced to principles and theories related to refrigeration systems. You will discuss refrigerants as well as refrigeration components and equipment. You will apply your skills by participating in startup and chiller operations.</td>
</tr>
<tr>
<td><strong>RFRG 150 Refrigerants</strong></td>
<td></td>
<td>2.0</td>
<td>24.0</td>
<td></td>
<td></td>
<td>You will learn about the different types of refrigerants and environmental regulations, and receive chlorofluorocarbon training.</td>
</tr>
<tr>
<td><strong>RFRG 151 Accessories</strong></td>
<td></td>
<td>2.0</td>
<td>24.0</td>
<td></td>
<td></td>
<td>You will learn about system flow controls, basic cycling controls, piping and evacuation.</td>
</tr>
<tr>
<td><strong>RFRG 180 Fundamentals of Refrigeration</strong></td>
<td></td>
<td>2.0</td>
<td>26.0</td>
<td></td>
<td></td>
<td>You will study temperature and temperature measurement, pressure and pressure measurement, and heat and heat transfer.</td>
</tr>
<tr>
<td><strong>RFRG 181 Basic Refrigeration Cycle</strong></td>
<td></td>
<td>2.0</td>
<td>26.0</td>
<td></td>
<td></td>
<td>You will study heat transfer in the basic cycle, pressure-temperature relationships, the refrigerant condition in the refrigeration system components and the basic cycle components.</td>
</tr>
<tr>
<td><strong>RFRG 183 Air Conditioning</strong></td>
<td></td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>AIR 288</td>
<td>You will be introduced to theory and equipment used in air conditioning systems. You will study humidification, ventilation, air filters as well as duct design and various types of air conditioning coils.</td>
</tr>
<tr>
<td><strong>RFRG 184 Basic Refrigeration System Components</strong></td>
<td></td>
<td>4.0</td>
<td>55.0</td>
<td></td>
<td></td>
<td>You will study the operation and design of compressors, condensers, evaporators and metering devices.</td>
</tr>
<tr>
<td><strong>RFRG 186 Hermetic Compressor Motors</strong></td>
<td></td>
<td>2.0</td>
<td>31.0</td>
<td></td>
<td></td>
<td>You will receive training on single-phase motors, motor starting equipment, motor protection and motor troubleshooting.</td>
</tr>
<tr>
<td><strong>RFRG 187 Defrost Systems and Piping</strong></td>
<td></td>
<td>2.0</td>
<td>25.0</td>
<td></td>
<td></td>
<td>You will learn about defrost methods, defrost control systems and defrost wiring.</td>
</tr>
<tr>
<td><strong>RFRG 188 Refrigeration Load Calculation</strong></td>
<td></td>
<td>2.0</td>
<td>25.0</td>
<td></td>
<td></td>
<td>You will learn how to calculate refrigeration heat loads and to select refrigeration equipment.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credit Units</td>
<td>Course Hours</td>
<td>Prerequisite(s)</td>
<td>Equivalent Course(s)</td>
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<tr>
<td>RFRG 189</td>
<td>Enthalpy and Psychrometrics</td>
<td>2.0</td>
<td>25.0</td>
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<td></td>
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<tr>
<td>RFRG 190</td>
<td>Capacity and Head Pressure Control</td>
<td>1.0</td>
<td>19.0</td>
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<tr>
<td>RFRG 191</td>
<td>Basic System Installation</td>
<td>4.0</td>
<td>61.0</td>
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<tr>
<td>RFRG 192</td>
<td>System Design and Operation</td>
<td>4.0</td>
<td>60.0</td>
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</tr>
<tr>
<td>RFRG 193</td>
<td>System Design and Installation</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RFRG 195</td>
<td>Refrigeration Systems</td>
<td>3.0</td>
<td>45.0</td>
<td>THER 185</td>
<td></td>
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<tr>
<td>RFRG 197</td>
<td>Electrical Control Systems</td>
<td>3.0</td>
<td>40.0</td>
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<tr>
<td>RGAN 180</td>
<td>Radiographic Anatomy</td>
<td>3.0</td>
<td>44.0</td>
<td>MTER 180, APHY 191*, APHY 282*</td>
<td>RGAN 180CE</td>
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<tr>
<td>RIGG 100</td>
<td>Rigging</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>RIGG 103</td>
<td>Rigging and Staging</td>
<td>3.0</td>
<td>45.0</td>
<td>WORK 144</td>
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<tr>
<td>RIGG 104</td>
<td>Rigging, Hoisting and Lifting</td>
<td>3.0</td>
<td>48.0</td>
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<tr>
<td>RIGG 105</td>
<td>Rigging and Electric Overhead Crane Operation</td>
<td>3.0</td>
<td>48.0</td>
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<tr>
<td>RIGG 106</td>
<td>Rigging, Hoisting and Lifting</td>
<td>2.0</td>
<td>30.0</td>
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</tr>
</tbody>
</table>

Register online at saskpolytech.ca or call 1-866-467-4278
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
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</thead>
<tbody>
<tr>
<td>RIGG 141</td>
<td>Rigging and Staging</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>RIGG 142</td>
<td>Rigging and Staging</td>
<td>3.0</td>
<td>40.0</td>
</tr>
<tr>
<td>RIGG 183</td>
<td>Safety, Knots and Rigging</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>RLAW 104</td>
<td>Introduction to Resource Legislation</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>RLAW 105</td>
<td>Indigenous Resource Rights</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>RLAW 106</td>
<td>Park Enforcement</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>RLAW 107</td>
<td>Park Enforcement</td>
<td>4.0</td>
<td>60.0</td>
</tr>
<tr>
<td>RLAW 108</td>
<td>Canadian Criminal Justice 1</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>RLAW 109</td>
<td>Canadian Criminal Justice 2</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>RLAW 200</td>
<td>Defense Tactics and Fitness</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>RLAW 201</td>
<td>Responsibilities and Authorities</td>
<td>2.0</td>
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</tbody>
</table>

The course provides an introduction to the purpose and types of rigging and staging equipment and devices. You will also develop the skills needed to hang pipe and use fixed and mobile staging equipment.

You will learn about the types of rigging and staging equipment and devices. You will also practice hands-on skills to hang pipe and use fixed and mobile staging equipment.

You will study general safety as it applies to the plumbing/pipefitting trades. You will develop skill in the safe lifting and moving of materials and equipment used in the shop. You will become familiar with WHMIS and articles of the Occupational Health and Safety Act that apply to the trades.

You will describe the creation and construction of legislation, the Summary Offences Procedures Act and the provincial and federal resource protection statutes and regulations. As well, you will be provided an overview of the specific legislation, regulations and policies affecting forestry and natural resources management in Saskatchewan which will help you recognize the principles and theories of resource management and law enforcement.

You will describe the treaties, Natural Resources Transfer Agreement, Constitution Act 1982 and case law with respect to the special rights of Indigenous people to the resources.

You will receive an introduction to park enforcement legislation and procedures. You will also learn radio communication procedures.

You will receive an introduction to park enforcement legislation and procedures. You will also learn radio communication procedures.

You will identify the fundamental principles of the Canadian judicial system. You will examine the Constitution Act, 1982, including the Charter of Rights and Freedoms, and the related jurisprudence. You will interpret the Criminal Code as it applies to a variety of offences and law enforcement procedures. You will describe the structure of the criminal court system in Canada.

You will examine the history and evolution of law enforcement in Canada with specific reference to the role of law enforcement in resource and environmental management. You will assess current trends in community-based policing and restorative justice. You will identify principles involving pleas, verdicts and sentencing options in Canada.

Your studies will focus on the principles of dealing with hostility and managing aggressive behaviour. You will learn defensive control tactics.

You will learn the legal authorities and limitations of peace officers. You will also learn the responsibilities, obligations and duties of peace officers.
## RLAW 202 Field Investigations 1

<table>
<thead>
<tr>
<th>Credit Units:</th>
<th>3.0</th>
<th>Course Hours:</th>
<th>45.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>RLAW 104, RLAW 108, RLAW 109</td>
<td></td>
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</tr>
</tbody>
</table>

You will describe the reasons and common methods of poaching and an officer's means of detection. You will gain practical experience completing enforcement documents.

## RLAW 203 Field Investigations 2

<table>
<thead>
<tr>
<th>Credit Units:</th>
<th>2.0</th>
<th>Course Hours:</th>
<th>30.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>RLAW 104, RLAW 108, RLAW 109</td>
<td></td>
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</tr>
</tbody>
</table>

You will learn procedures and tactics for conducting patrols, surveillance, high-risk, and unknown risk takedowns. Your studies will include tactical and communication techniques and preliminary investigation into possible illegal resource harvesting and or violations.

## RLAW 204 Gathering Evidence 1

<table>
<thead>
<tr>
<th>Credit Units:</th>
<th>2.0</th>
<th>Course Hours:</th>
<th>30.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>GIS 101, RLAW 104, RLAW 108, RLAW 109</td>
<td></td>
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</tr>
</tbody>
</table>

You will gain an understanding of the principles surrounding the continuity of evidence. You will describe proper evidence collection procedures. You will become familiar with using forensic analysis on firearms, tools, blood, hair and fibre. You will also learn procedures for conducting interviews, interrogations and property searches.

## RLAW 205 Gathering Evidence 2

<table>
<thead>
<tr>
<th>Credit Units:</th>
<th>3.0</th>
<th>Course Hours:</th>
<th>45.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>GIS 101, RLAW 104, RLAW 108, RLAW 109</td>
<td></td>
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</tr>
</tbody>
</table>

You will expand your understanding of the principles surrounding the continuity of evidence. You will apply proper evidence collection techniques and laboratory submission procedures in simulated investigations. Your investigation will include interviews, the preparation and execution of search warrants, and the georeferencing of the evidence using GIS technology.

## RLAW 206 Courtroom Procedures 1

<table>
<thead>
<tr>
<th>Credit Units:</th>
<th>2.0</th>
<th>Course Hours:</th>
<th>30.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>RLAW 104, RLAW 108, RLAW 109, RLAW 205</td>
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</tbody>
</table>

You will be introduced to the civil and criminal courtroom procedures of Canada. Your studies will examine the hierarchy of federal and provincial court structures and administrative procedures for the execution of law and justice. You will learn how to be professional in enforcement duties and courtroom procedures.

## RLAW 207 Courtroom Procedures 2

<table>
<thead>
<tr>
<th>Credit Units:</th>
<th>3.0</th>
<th>Course Hours:</th>
<th>45.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>RLAW 104, RLAW 108, RLAW 109, RLAW 205</td>
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</tbody>
</table>

You will continue your studies on procedures for preparing and presenting evidence in court. You will identify the principles of burden of proof, the role of a witness and enforcement agencies and their functions. You will develop court briefs to be used in mock court scenarios. You will learn how to be competent in enforcement procedures and be able to effectively present yourself as an officer during court proceedings.

## RLAW 301 Canadian Criminal Justice

<table>
<thead>
<tr>
<th>Credit Units:</th>
<th>5.0</th>
<th>Course Hours:</th>
<th>75.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>RLAW 104</td>
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</tr>
</tbody>
</table>

You will identify the fundamental principles of the Canadian judicial system, the Charter of Rights and Freedoms, trials, appeals and sentencing. You will examine the evolution of law enforcement in Canada with specific reference to the role of law enforcement in resource management.

## RLAW 401 Control Tactics

<table>
<thead>
<tr>
<th>Credit Units:</th>
<th>5.0</th>
<th>Course Hours:</th>
<th>75.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>RLAW 104, RLAW 301</td>
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</tbody>
</table>

Your studies will focus on the principles of dealing with hostility and managing aggressive behaviour. You will learn defensive control tactics. You will also learn the legal authorities and limitations of conservation officers.

## RLAW 402 Field Investigations

<table>
<thead>
<tr>
<th>Credit Units:</th>
<th>5.0</th>
<th>Course Hours:</th>
<th>75.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>GIS 101*, RLAW 104, RLAW 301</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equivalent Course(s):</td>
<td>RLAW 440</td>
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</tbody>
</table>

You will describe the reasons and common methods of poaching and an officer's means of detection. You will gain practical experience completing enforcement documents. You will also learn procedures and tactics for conducting patrols, surveillance and high-risk takedowns.
Course Descriptions

RLAW 403 Environmental Legislation and Compliance
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  RLAW 104
You will describe provincial and federal legislation, and international treaty and its application to specific environmental issues. You will learn how to prepare and perform regulatory site inspections. You will apply compliance measures and documents. Environmental forensics and investigation will be introduced.

RLAW 404 Gathering Evidence
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s):  GIS 101*, RLAW 104, RLAW 301
You will gain an understanding of the principles surrounding the continuity of evidence. You will describe proper evidence collection procedures. You will become familiar with using forensic analysis on firearms, tools, blood, hair and fibre. You will also learn procedures for conducting interviews, interrogations and property searches.

RLAW 405 Courtroom Procedures
Credit Units: 5.0  Course Hours: 75.0
Prerequisite(s):  RLAW 104, RLAW 301
Equivalent Course(s):  RLAW 444
Your studies will focus on procedures for preparing and presenting evidence in court. You will identify the principles of burden of proof, the role of a witness and enforcement agencies and their functions. You will learn how to be competent in enforcement procedures and be able to effectively present yourself as an officer during court proceedings.

RLAW 406 Environmental Investigation
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  RLAW 404
You will utilize skills obtained in investigation, evidence collection, interviewing witnesses and accused, search and seizure to conduct and document an environmental investigation. You will demonstrate the use of proper safety equipment and collection techniques to investigate a hazardous site.

ROOF 220 Roof Coverings
Credit Units: 1.0  Course Hours: 15.0
You will receive instruction and practice in applying asphalt, wood, and metal and fiberglass shingles. Flashing, and venting and eave protection will also be covered.

RS 200 Remote Sensing Applications
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  GEOM 100, GIS 200, GIS 201
You will study fundamental principles of remote sensing and remote sensing platforms. You will study image characteristics and practice image correction and enhancement techniques. You will also practice classification using visual and digital image interpretation and analysis techniques.

RS 201 Advanced Remote Sensing
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  RS 200
You will study principles of active remote sensing sensors and their platforms. You will acquire knowledge for interpretation and analysis of data from various sources including light detection and ranging (LIDAR), synthetic apparatus radar (SAR), unmanned aerial vehicle (UAV) and sonar.

RSAP 180 Radiation Science and Apparatus 1
Credit Units: 3.0  Course Hours: 40.0
Prerequisite(s):  PHYS 184*
You will be introduced to the function and operation of basic x-ray equipment in producing radiation. You will also study quality control and how it is applied in a practical setting.

RSCH 200 Research Literacy
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  THRC 188
You will be introduced to basic research and its relationship to operational decision making. You will review data collection, types of research, pose simple research questions and design surveys.

RSCH 280 Applied Investigation
Credit Units: 1.0  Course Hours: 22.0
Prerequisite(s):  APHY 282, BIOL 181, CHEM 184, CHEM 288, ETHC 185, ETHC 280, HEMA 283, HEMA 188, HEMA 189, HSTC 187, MICR 189, PATH 181, QC 193, QC 194, TRFS 182) or SIMU 281
Equivalent Course(s):  COMM 289, RSCH 280CE
You will receive an introduction to research concepts, methodologies and issues in health. You will demonstrate the practical application of research techniques.
RSRC 101 Elements of Ecology
Credit Units: 1.0    Course Hours: 15.0
Equivalent Course(s):  RSRC 340
You will cover the spatial and temporal variation of life. You will explore the factors that influence the distribution of life and the competitive forces that restrict or enhance population growth. You will receive a summary evaluation of human's role in ecosystems.

RSRC 102 Landscape, Soils and Ecoregions
Credit Units: 3.0    Course Hours: 45.0
You will be introduced to processes and features that help shape and define the landscape of Saskatchewan. You will learn about fluvial and glacial geomorphologic processes and will be able to describe their associated landforms. This will provide you a foundation for the study of soils, parent material and corresponding vegetation. You will apply your knowledge of geology, soils and vegetation within the integrated context of ecological land classification.

RSRC 103 Forest Ecosystems
Credit Units: 4.0    Course Hours: 60.0
You will be introduced to geological processes and physiography that define the landscape and soils of Saskatchewan. You will study Saskatchewan ecosystems and the relationship of soils, landforms, vegetation and land use. The course includes dendrology, students identify and describe tree and shrub species native to Saskatchewan regions. The course examines forest ecosites and tree growth performance.

RT 170 Introduction to Recreation and Community Development
Credit Units: 2.0    Course Hours: 30.0
Equivalent Course(s):  REC 286
You will examine various fields of recreation and review significant organizations to help you understand the diversity of employment opportunities that exist in industry. You will focus on understanding philosophies and benefits associated with recreation. You will study an overview of knowledge, skills and abilities that the recreation and community development based industries require.

RT 171 Economic Development
Credit Units: 3.0    Course Hours: 45.0
You will study the concepts economic development as it applies to community growth. You will discuss how communities work with government, and private sectors to build strong communities, industries, and markets.

RT 185 Program Planning 1
Credit Units: 3.0    Course Hours: 45.0
You will focus on strategies used to plan and deliver leisure services in communities. You will receive a comprehensive overview of community planning and strategic development.

RT 186 Inclusive Leisure
Credit Units: 3.0    Course Hours: 45.0
Equivalent Course(s):  THRC 182
You will focus on defining the concept of inclusive leisure as the norm for the delivery of leisure services embracing the diversity of all people, including persons with physical, cognitive and sensory limitations or disabilities. The exploration of attitudes, benefits, barriers and adaptations will emphasize the importance of inclusive leisure services to societal wellness.

RT 187 Program Planning 2
Credit Units: 3.0    Course Hours: 45.0
Prerequisite(s):  RT 185
Equivalent Course(s):  TOUR 140
Building on the theory studied in Program Planning 1, you will be given the opportunity to apply a social planning model in an actual situation. You will take the Saskatchewan Tourism Education Council (STEC) Service Best program as a means of the skill development in effective customer relations.

RT 189 Introduction to Microeconomics
Credit Units: 3.0    Course Hours: 45.0
Equivalent Course(s):  ECON 120
You will become familiar with how consumption and production decisions are made in a market economy. You will study the applications of supply and demand analysis, the theory of consumer behaviour and the impact of government regulations and intervention on market performance. You will study the basic theory of the firm under perfect competition, monopoly and monopolistic competition and the principles of oligopoly.
Course Descriptions

RT 200 Event Management
Credit Units: 3.0  Course Hours: 45.0
You will become familiar with the process involved in establishing festivals and special events. Emphasis will be placed on the importance of establishing and maintaining contracts.

RT 201 Feasibility Studies
Credit Units: 2.0  Course Hours: 30.0
You will be introduced to the feasibility stage of planning for the development of community facilities. The course content includes defining feasibility studies, the rationale for feasibility studies, the sequence of steps that a study follows, and how terms of reference for contracts are established. You will study how to analyze information and develop recommendations.

RT 202 Diversity and Cultural Foundations
Credit Units: 3.0  Course Hours: 45.0
You will receive an introduction to the impact of cultural diversity in Saskatchewan and Canada. You will review the immigration process and the implications for recreation and community development. You will explore cultural values and the importance of understanding various cultures while working in recreation and leadership fields. Understanding Saskatchewan’s First Nations and Metis history and culture will be emphasized.

RT 203 Event Management Lab
Credit Units: 1.0  Course Hours: 15.0
Prerequisite(s):  RT 200
You will become familiar with the process involved in establishing festivals and special events. Emphasis will be placed on the importance of establishing and maintaining contracts.

RT 289 Community Development
Credit Units: 3.0  Course Hours: 45.0
You will be introduced to the concept and models of community development. You will discuss the concept of social capital and explore asset mapping to help mobilize individuals and organizations to make connections and build capacity.

RT 292 Outdoor Programming
Credit Units: 3.0  Course Hours: 45.0
You will examine the philosophy, development and management of outdoor programs in relation to various ages, cultures and environments. Your studies will focus on planning, developing, delivering and evaluating outdoor programs, the environmental impact the programs cause and methods that can be used to minimize recreation user impact and risk.

RVRS 220 River Engineering
Credit Units: 4.0  Course Hours: 64.0
Prerequisite(s):  HYDR 221, INST 231
You will become familiar with how nature and humans interact with rivers. The course content includes a study of how river geometry changes with changes in flow (erosion, sediment deposition and transport). You will also examine human interaction with rivers when designing works such as intakes, outfalls, stream crossings and dams.

SAFE 103 Automotive Shop Safety
Credit Units: 4.0  Course Hours: 60.0
The course focuses on shop safety precautions and procedures used in the automotive service trade.

SAFE 104 Safety
Credit Units: 3.0  Course Hours: 45.0
You will study concepts and trends related to personal and building safety. You will discuss environmental impacts of building operations.

SAFE 105 Safety Systems
Credit Units: 3.0  Course Hours: 45.0
Your studies will address occupational health, safety and assurance systems, as well as electrical systems, driving, protective equipment and confined space. You will acquire the core requirements and responsibilities needed to work safely.

SAFE 106 Safety and Communication Techniques
Credit Units: 2.0  Course Hours: 30.0
You will learn the theoretical and practical activities related to safety and communication in the workplace.

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### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFE 107</td>
<td>General Safety</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td></td>
<td>You will acquire general construction safety knowledge based on the interpretation of the Occupational Health and Safety Act and Regulations (OH&amp;S), and the Saskatchewan Construction and Safety Association (SCSA) requirements.</td>
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<tr>
<td>SAFE 180</td>
<td>Laboratory Safety</td>
<td>1.0</td>
<td>15.0</td>
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<tr>
<td></td>
<td>You will discuss topics related to safe working practices and procedures in the bioscience laboratory. Many of these topics are related to government regulations and industrial laboratory guidelines.</td>
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<tr>
<td>SANT 010</td>
<td>Sanitation, Safety and Hygiene for Nail Technicians</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td></td>
<td>Your studies will focus on safety as it relates to a nail salon, personal health and sanitation. This course provides instruction in the study of bacteriology. You will also study relevant safety concerns such as fire safety, health risks and diseases.</td>
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<tr>
<td>SANT 105</td>
<td>Sanitation, Safety and Hygiene</td>
<td>1.0</td>
<td>15.0</td>
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<tr>
<td></td>
<td>Equivalent Course(s): SUPP 144</td>
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<tr>
<td></td>
<td>Your studies will focus on safety as it relates to salon and personal health and sanitation. You will receive instruction in the study of bacteriology. You will also study relevant safety concerns such as fire safety, health risks and diseases.</td>
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<tr>
<td>SANT 108</td>
<td>Sanitation, Safety and Hygiene for Hairstylists</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td></td>
<td>Your studies will focus on safety as it relates to a hair salon, personal health and sanitation. This course provides instruction in the study of bacteriology. You will also study relevant safety concerns such as fire safety, health risks and diseases.</td>
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<tr>
<td>SANT 110</td>
<td>Sanitation, Safety and Hygiene for Skin Care Technicians</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td></td>
<td>Your studies will focus on safety as it relates to a spa, personal health and sanitation. This course provides instruction in the study of bacteriology. You will also study relevant safety concerns such as fire safety, health risks and diseases.</td>
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<tr>
<td>SANT 181</td>
<td>FOODSAFE Level 1</td>
<td>1.0</td>
<td>9.0</td>
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<tr>
<td></td>
<td>Credit Units: 1.0</td>
<td>Course Hours: 9.0</td>
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<td>Equivalent Course(s):</td>
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<tr>
<td></td>
<td>SFTY 111</td>
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<td></td>
<td>You will learn sanitary food handling techniques that reduce the risk of food poisoning.</td>
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<tr>
<td>SANT 185</td>
<td>FOODSAFE Level 2</td>
<td>1.0</td>
<td>13.0</td>
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<tr>
<td></td>
<td>Prerequisite(s):</td>
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<td></td>
<td>SANT 181*</td>
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<td></td>
<td>Building on the knowledge in SANT 181 (FOODSAFE Level 1), you will develop management skills and tools to foster a culture of food safety.</td>
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<tr>
<td>SCAF 103</td>
<td>Scaffolds</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td></td>
<td>You will learn how to select and safely set up various types of scaffolding used in the masonry trade. The safety regulations in the Saskatchewan Occupational Health and Safety (OH&amp;S) Act will be emphasized.</td>
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<tr>
<td>SCAF 120</td>
<td>Scaffolds and Rigging</td>
<td>1.0</td>
<td>15.0</td>
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<tr>
<td></td>
<td>You will receive the theory and hands-on experience needed for the safe use of ladders, ramps and runways used in construction. The course content includes erecting, maintaining and dismantling various types of access scaffolds and rigging and hoisting equipment.</td>
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<tr>
<td>SCAF 152</td>
<td>Scaffolds</td>
<td>1.0</td>
<td>18.0</td>
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<tr>
<td></td>
<td>You will receive the theory and hands-on experience needed for the safe use of ladders, ramps and runways used in construction. The course content includes erecting, maintaining and dismantling various types of access scaffolds and rigging and hoisting equipment.</td>
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<tr>
<td>SCI 107</td>
<td>Beauty Culture Sciences</td>
<td>5.0</td>
<td>75.0</td>
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<tr>
<td></td>
<td>Equivalent Course(s):</td>
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<tr>
<td></td>
<td>SCI 140</td>
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<td></td>
<td>You will explore sciences as they relate to the beauty profession. The course content includes chemistry, physics, anatomy and physiology, trichology, nutrition and metric conversion.</td>
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</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
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</thead>
<tbody>
<tr>
<td>SCI 108</td>
<td>Plumbing/Pipefitting Science</td>
<td>1.0</td>
<td>16.0</td>
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<tr>
<td></td>
<td>You will gain an understanding of basic scientific principles that apply to the Plumbing/ Pipefitting trade. You will study classification, properties and states of matter, basic chemistry, and basic principles of Thermodynamics. You will also solve problems involving simple machines.</td>
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<tr>
<td>SCI 201</td>
<td>Advanced Sciences</td>
<td>1.0</td>
<td>12.0</td>
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<tr>
<td></td>
<td>Prerequisite(s): SCI 107</td>
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<td></td>
<td>Although estheticians are not qualified to treat skin diseases or medical conditions, they frequently come in contact with them and therefore need a basic understanding of these diseases and the drugs used to treat them. In addition to the basic chemical reactions that take place in the skin, you will gain a better understanding of over-the-counter drugs and prescription drugs that affect the skin. You will learn their intended uses and how they work, along with information about new skin ingredients such as serums and polymers. An explanation of the Food and Drug Administration (FDA) regulations is included.</td>
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<tr>
<td>SECG 100</td>
<td>Crime Prevention and Technology</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td></td>
<td>You will examine the processes and technologies involved in crime prevention. You will demonstrate skills necessary to maintain a safe work environment.</td>
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<tr>
<td>SECG 101</td>
<td>Legislation and Procedures for Security Officers</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
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<td>You will examine provincial and federal legislation, policy and procedures in the security field. Your studies will also include the successful completion of the Private Investigators and Security Guards Act (PISGA) exam.</td>
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<tr>
<td>SEM 100</td>
<td>Beauty Culture Seminar</td>
<td>1.0</td>
<td>15.0</td>
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<tr>
<td></td>
<td>Prerequisite(s): PRAC 201*</td>
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<td></td>
<td>You will participate in field trip experiences to enrich your industry contacts, increase your product knowledge and learn about the latest technology and techniques.</td>
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<tr>
<td>SEM 101</td>
<td>Technology Seminars</td>
<td>1.0</td>
<td>15.0</td>
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<tr>
<td></td>
<td>Equivalent Course(s): ENGM 181, ETHC 183, ORTN 120, SEM 104</td>
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<td></td>
<td>Your orientation will include discussions regarding the role of technicians/technologists in the workplace and society. You will study time management skills, diversity in the workplace, principles of sustainability and safety requirements.</td>
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<tr>
<td>SEM 103</td>
<td>Esthetics Seminar</td>
<td>0.0</td>
<td>15.0</td>
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<tr>
<td></td>
<td>Equivalent Course(s): SEM 101, SEM 104</td>
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<tr>
<td></td>
<td>You will participate in field trip experiences to enrich your industry contacts, increase your product knowledge and learn about the latest technology and techniques in the field of esthetics. You will challenge your skills through competition.</td>
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<tr>
<td>SEM 104</td>
<td>Technology Seminars</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>Equivalent Course(s): SEM 101</td>
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<tr>
<td></td>
<td>Your orientation will include discussions regarding the role of technicians/technologists in the workplace and society. You will study time management skills, diversity in the workplace, principles of sustainability, and safety requirements.</td>
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<tr>
<td>SEM 105</td>
<td>Youth Care Worker Diploma Integration Seminar 1</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>Prerequisite(s): PRAC 385</td>
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<tr>
<td></td>
<td>Equivalent Course(s): SEM 105CE</td>
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<td></td>
<td>You will reflect on professional practice with a focus on advanced knowledge and skills developed in youth care courses. You will develop a personal portfolio for practicum placement in PRAC 398, Practicum 1. You will explore the professional expectations of agencies involved in your placement.</td>
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<tr>
<td>SEM 106</td>
<td>Practicum Integration Seminar</td>
<td>1.0</td>
<td>15.0</td>
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<tr>
<td></td>
<td>Equivalent Course(s): SEM 106CE</td>
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<tr>
<td></td>
<td>You will learn the roles involved in an educational assistant practicum and workplace setting. You will develop an understanding of practicum expectations including professional standards.</td>
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</tbody>
</table>

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Course Descriptions

**SEM 181 Professional Trends and Issues Seminar**
Credit Units: 1.0  Course Hours: 15.0  
You will be introduced to the role of professional associations and service providers. You will hear guest speakers from professional associations, employing agencies, service providers and current practitioners who will discuss their roles and the impact they have on pharmacy technicians and pharmacy practice.

**SEM 184 Disability Support Worker Integration Seminar 1**
Credit Units: 1.0  Course Hours: 15.0  
Equivalent Course(s):  PRAC 382, SEM 184CE  
You will discuss practicum placement experiences to identify professional practice as it applies to services for persons with disabilities with an emphasis on respectful interaction and confidentiality. You will have an opportunity to reflect on professional practice and discuss the application of theory and knowledge on practice. You will develop a professional portfolio containing documents required for practicum.

**SEM 185 Youth Care Worker Certificate Integration Seminar 1**
Credit Units: 1.0  Course Hours: 15.0  
Equivalent Course(s):  SEM 185CE  
You will learn the role of the youth care worker in the workplace and in society. You will identify professional practices as it applies to services for youth with an emphasis on respectful interaction and confidentiality. You will reflect on professional practice and discuss the application of theory and knowledge on practice. You will develop a personal portfolio for practicum placement, and you will explore the expectations of agencies involved in your placement.

**SEM 200 Youth Care Worker Diploma Integration Seminar 2**
Credit Units: 1.0  Course Hours: 15.0  
Prerequisite(s):  PRAC 398, PRAC 385  
Equivalent Course(s):  SEM 200CE  
You will reflect on practicum experiences and the application of advanced theories, knowledge and skills in practicum settings. You will discuss current issues in the provision of youth services. You will add to your personal portfolio for practicum placement in PRAC 399, Practicum 2. You will explore the expectations of agencies involved in your placement.

**SEM 201 Practicum Seminar**
Credit Units: 1.0  Course Hours: 15.0  
You will prepare for your 120 hours practicum, by developing career goals, printed material and participating in an interview.

**SEM 282 Youth Care Worker Certificate Integration Seminar 2**
Credit Units: 1.0  Course Hours: 15.0  
Prerequisite(s):  PRAC 384  
Equivalent Course(s):  SEM 282CE  
You will reflect on practicum experiences and apply theories, knowledge and skills to practicum placements. You will discuss current issues as well as ethical and professional conduct in relation to practicum experiences. You will expand the skills and knowledge needed to plan personal learning and career goals.

**SEM 283 Seminar**
Credit Units: 1.0  Course Hours: 15.0  
You will learn about topics of interest in the computer technology field from speakers representing various companies in industry.

**SEM 284 Disability Support Worker Integration Seminar 2**
Credit Units: 1.0  Course Hours: 15.0  
Prerequisite(s):  PRAC 382*  
Equivalent Course(s):  PRAC 383, SEM 284CE  
You will reflect on practicum experiences and apply theories, knowledge, and skills to practicum placements. You will discuss current issues as well as ethical and professional conduct in relation to practicum experience. You will develop an updated professional portfolio integrating professional experiences and personal career goals.

**SFCP 600 Theory and Practice in Adult Instruction**
Credit Units: 3.0  Course Hours: 45.0  
You will focus on the knowledge and skills necessary to initiate the on-going progression and development of effective instructional skills as you begin as a new Saskatchewan Polytechnic instructor. As a content expert, you require skills to deliver subject matter competently to students.

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## Course Descriptions

### SFCP 601 Introduction to Adult Development
- **Credit Units:** 3.0
- **Course Hours:** 45.0
- **Prerequisite(s):** SFCP 600
- **Equivalent Course(s):** SFCP 601CE

You will examine the basic concepts that underpin the foundation and philosophy of adult education and training. You will examine the nature of adult learners in relation to individual, social, and societal development across the lifespan. You will link theory and practice by comparing facilitation strategies for specific learning tasks and contexts.

### SFCP 602 Evaluation
- **Credit Units:** 3.0
- **Course Hours:** 45.0
- **Prerequisite(s):** SFCP 600
- **Equivalent Course(s):** SFCP 602CE

You will explore evaluation and assessment in training organizations and adult education environments. You will analyze and construct learner assessment instruments, course evaluation tools, and follow-up documentation.

### SFCP 603 Program Design
- **Credit Units:** 3.0
- **Course Hours:** 45.0
- **Prerequisite(s):** SFCP 600
- **Equivalent Course(s):** SFCP 603CE

You will explore the process of program design. There will be an examination of instructional design models which may be used in the field of adult education. You will analyze and design a curriculum project related to your program area.

### SFCP 604 Instructional Technology
- **Credit Units:** 3.0
- **Course Hours:** 45.0
- **Prerequisite(s):** SFCP 600
- **Equivalent Course(s):** SFCP 604CE

You will examine the use of technology in the educational process. As a content expert you require the ability to deliver knowledge competently to the learners through a variety of methods. You will learn to use technology to enhance the learning process.

### SFCP 605 Professional and Instructional Skills Introduction
- **Credit Units:** 2.0
- **Course Hours:** 28.0
- **Equivalent Course(s):** LEAD 116CE

You will develop professional and instructional skills that will enhance your effectiveness as a Saskatchewan Polytechnic instructor. Workshops will include: Classroom management, cooperative learning, diversity, experiential learning, leadership, library research skills, personal professional development planning, technology, and writing.

### SFCP 606 Educational Leadership
- **Credit Units:** 3.0
- **Course Hours:** 45.0
- **Prerequisite(s):** SFCP 600
- **Equivalent Course(s):** MGMT 116CE

You will develop an understanding of the difference between leadership and management as it relates to your classroom. The course content includes discussion of a variety of leadership skills. You will explore the concept of leadership in the classroom, the institution, and the world beyond.

### SFCP 607 Leadership Skills Introduction
- **Credit Units:** 2.0
- **Course Hours:** 32.0
- **Equivalent Course(s):** MGMT 189CE

You will explore leadership topics and skills as they apply to you as a Saskatchewan Polytechnic instructor. You will attend workshops on a variety of current and potential educational leadership strategies and challenges.

### SFCP 608 Personal Professional Development
- **Credit Units:** 2.0
- **Course Hours:** 24.0
- **Prerequisite(s):** ORTN 1001

You will develop your teaching portfolio, including creating a personal teaching philosophy and personal professional development plan. You will also identify and participate in a mentoring event. By collecting and reflecting on evidence to support your teaching portfolio, you will increase your understanding of the process and the completed portfolio product.
### Course Descriptions

#### SFTY 103 Welding Safety
**Credit Units:** 2.0  **Course Hours:** 30.0
Your studies will focus on general safety as it applies to the welding trade. You will learn how to use firefighting equipment, organize a shop for safe welding operation and safely transport and store welding supplies. You will also learn basic rigging techniques. You will study and receive certification in WHMIS and be introduced to the articles of Occupational Health and Safety Act that apply to the trade.

#### SFTY 106 Wilderness Survival
**Credit Units:** 1.0  **Course Hours:** 15.0
You will learn the basic survival techniques involving clothing, shelter building, fire, signaling and collecting food and water. You will also learn how to deal with wildlife during dangerous encounters.

#### SFTY 109 Basic Safety and Maintenance
**Credit Units:** 10.0  **Course Hours:** 150.0
**Prerequisite(s):** EQPT 107
You will review the general and company-specific basic safety principles and maintenance procedures required to operate a raise bore drilling system.

#### SFTY 111 Safety, Sanitation and WHMIS
**Credit Units:** 2.0  **Course Hours:** 30.0
You will gain an understanding of the procedures related to safety and sanitation in a professional kitchen. This will include the handling of workplace hazardous materials. You will learn how to prepare safe, sanitary foods for customers while avoiding injury to yourself and your colleagues.

#### SFTY 114 Trade Safety
**Credit Units:** 1.0  **Course Hours:** 12.0
You will learn safe working practices and study regulations related to the trade.

#### SFTY 116 Safety
**Credit Units:** 1.0  **Course Hours:** 18.0
You will learn about the hazards associated with the refrigeration and air conditioning trade. You will also learn safe working practices and receive Workplace Hazardous Materials Information System (WHMIS) training.

#### SFTY 119 Shop Safety, Tools and Procedures
**Credit Units:** 1.0  **Course Hours:** 21.0
You will cover various aspects of employing safe work procedures in the shop area. You will learn how to access service information using manuals, CD ROMs and web based information. You will learn about the metric and Imperial fasteners used in the power equipment trade. You will develop the skills needed to remove broken fasteners, repair damaged threads and use soldering tools. You will also learn about bearings and seals.

#### SFTY 126 Safe Working Procedures
**Credit Units:** 0.0  **Course Hours:** 15.0
You will study and follow the basic principles of shop safety when working with and around equipment, tools and chemicals used in the auto body trade.

#### SFTY 129 Safety Awareness
**Credit Units:** 1.0  **Course Hours:** 15.0
You will learn to apply occupational health and safety regulations. You will be able to identify and describe personal protective equipment, fall protection, working environment hazards, and industrial health hazards.

#### SFTY 130 Safety and Personal Protective Equipment
**Credit Units:** 3.0  **Course Hours:** 45.0
You will be introduced to the Occupational Health and Safety requirements for the electrician trade. You will learn about personal protective equipment that is required when working in the electrical trade. You will learn about arc flash hazards. You will learn how to utilize ladders and scaffolds safely. You will be introduced to basic rigging equipment, calculations, and operations. You will learn about Occupational Health and Safety requirements for rigging operations and equipment.

#### SFTY 133 Trade Safety
**Credit Units:** 4.0  **Course Hours:** 53.0
You will study safety process, regulations and legislation. In order to develop safe work practices you will study safety concerns on an ongoing basis throughout the program and be evaluated accordingly.
### SFTY 135 Health and Safety

Credit Units: 3.0  
Course Hours: 40.0  
You will learn strategies for maintaining a healthy lifestyle. Your studies will focus on personal wellness, maintaining a safe work environment, using infection control techniques and integration of the proper lifting and moving principles. You will also learn how to manage scenes that pose a risk to paramedics (including crime scenes, hazardous materials, potential terrorist actions and mass casualty incidents). Upon completion of the course you will receive certification in Transferring Lifting Repositioning (TLR®), Workplace Hazardous Materials Information System (WHMIS) and Chemical, Biological, Radiological, Nuclear, Explosive (CBRNE) Basic.

### SFTY 136 Field Vehicle and Boat Operation Safety

Credit Units: 2.0  
Course Hours: 30.0  
You will learn how to operate, maintain, load and unload field vehicles and all-terrain vehicles (ATVs). You will also learn how to operate motorboats on lakes and rivers. You will become familiar with routine field maintenance, troubleshooting and operation procedures in hazardous conditions. Your studies will help you gain certification from the Canada Safety Council for ATV training and help you prepare to challenge the exam for the National Coast Guard boating certificate.

### SFTY 138 Safety

Credit Units: 2.0  
Course Hours: 30.0  
You will receive general safety information as related to the construction and engineering technology industry. You will study health and safety legislations relating to the Transportation of Dangerous Goods (TDG), Workplace Hazardous Materials Information System (WHMIS) and Occupational Health and Safety (OH & S). You will also review pertinent occupational health hazards in industry and methods of incident prevention.

### SFTY 139 Trade Related Safety

Credit Units: 2.0  
Course Hours: 30.0  
You will study general safety as it applies to the plumbing and pipefitting trades. You will be introduced to the Workplace Hazardous Materials Information System (WHMIS) and articles of the Occupational Health and Safety OH&S Act & Regulations that apply to these two trades.

### SFTY 157 Control Tactics

Credit Units: 2.0  
Course Hours: 30.0  
You will apply tactical intervention techniques for the assessment and management of difficult situations.

### SFTY 172 Safety

Credit Units: 2.0  
Course Hours: 30.0  
You will study general safety information related to power engineering. You will study the basic principles dealing with personal protective equipment (PPE), fire safety and WHMIS. You will learn about environmental pollutants and transport of dangerous goods (TDG) legislation.

### SFTY 173 Risk Management

Credit Units: 4.0  
Course Hours: 60.0  
Equivalent Course(s): HLTH 180, SFTY 173CE  
Hazard identification, risk analysis, and hazard control are cornerstones in a workplace health and safety system. Your studies will focus on these three important elements while developing your critical thinking and problem solving skills.

### SFTY 174 Emergency Management

Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): SFTY 173  
Equivalent Course(s): SFTY 174CE  
Your studies will focus on potential workplace emergencies. You will examine the role of stakeholders, legislation, standards and best practices used to develop Emergency Management plans. You will discuss the importance of a proactive approach to Emergency Management and how to address communication and post incident recovery.

### SFTY 175 Safety Program Management

Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s): LAW 100, SFTY 173  
Equivalent Course(s): HLTH 181, SFTY 175CE  
You will learn to develop and implement a Safety Management Program. You will have the opportunity to conduct a needs assessment and practice developing and implementing policies, procedures and plans. This will enhance your ability to determine prevention and training strategies.

### SFTY 176 Safety and Tools

Credit Units: 3.0  
Course Hours: 45.0  
You will gain an understanding of the procedures related to safety, sanitation, tools and equipment in a professional work environment. This will include the handling of workplace hazardous materials. You will learn how to prepare safe, sanitary food products while properly utilizing tools and equipment of the trade.
SFTY 177 Auditing Safety Management
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): LAW 100, SFTY 173, SFTY 175
Equivalent Course(s): SFTY 171, SFTY 177CE
Your studies will focus on both internal and external audit processes from initial planning through to completion. The course will include an overview of why auditing is necessary. A variety of audit strategies will be examined.

SFTY 178 Switchyard Safety
Credit Units: 2.0  Course Hours: 30.0
Your studies will focus on safety issues related to installing, maintaining and testing energized electrical equipment. You will study the installation requirements for high-voltage services, metering and distribution equipment.

SFTY 179 Safety in Pharmacy Practice
Credit Units: 3.0  Course Hours: 45.0
You will be introduced to workplace and safety legislation that affects the pharmacy technician. The course content includes an introduction to WHMIS (Workplace Hazardous Materials Information System), hand hygiene, needle safety, OH&S (Occupational Health and Safety) requirements and labour standards. You will study the importance of quality assurance in the workplace to ensure safe outcomes for your patients. You will receive WHMIS certification in this course.

SFTY 184 Introduction to Crisis Prevention
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s): SFTY 184CE, SFTY 194
You will develop strategies for crisis prevention in working with people based on the crisis prevention model.

SFTY 185 Laboratory Safety
Credit Units: 1.0  Course Hours: 15.0
You will discuss topics related to safe working practices and procedures in the chemical laboratory. Many of these topics are related to government regulations and industrial laboratory guidelines.

SFTY 186 Warehouse Safety
Credit Units: 1.0  Course Hours: 12.0
You will learn about proper lifting procedures and back care as well as the importance of a safe work environment.

SFTY 192 Kitchen Safety
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s): EQPT 108, SFTY 111, SFTY 180
You will learn kitchen safety procedures that reduce the risk of injuries occurring on the job.

SFTY 194 Professional Assault Response Training (PART) ©
Credit Units: 1.0  Course Hours: 12.0
Equivalent Course(s): SFTY 194CE
You will participate in professional assault response training to provide you with defensive and preventive skills. Upon successfully completing the course, you will receive a Professional Assault Response Training (PART) © Intermediate certificate from Saskatchewan Association for Safe Workplaces in Health (SASWH).

SFTY 197 Workplace Hazardous Materials Information System and Transportation of Dangerous Goods
Credit Units: 1.0  Course Hours: 12.0
You will learn the workplace hazardous materials information system (WHMIS) and the transportation of dangerous goods (TDG) regulations, symbols, classes and divisions including emergency action plans. You will also learn how to store and ship dangerous goods in a warehouse setting.

SFTY 198 Contractor Safety Systems
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): SFTY 198CE
Your studies will focus on safety systems and their relationship to contractors. Most organizations require contractor services at some point in time, and you will explore how to manage these contractors and sub contractors within your safety management system. Specific topics covered include legislated roles and responsibilities of employers, contractors and supervisors; requirements for a safety management system; and Workers' Compensation Board (WCB) relationship with contractors.

SFTY 199 Fire Prevention and Protection
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s): SFTY 199CE
Your studies will focus on applying current concepts and principles involved the evaluation, control, prevention, reduction and elimination of fire hazards for individuals and the workplace.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
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<tbody>
<tr>
<td>SFTY 201</td>
<td>Managing Health and Safety Systems from an Occupational Health Nursing Perspective</td>
<td>3.0</td>
<td>50.0</td>
<td>NRSG 287</td>
<td>SFTY 201CE</td>
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<td>Safety and Emergencies</td>
<td>3.0</td>
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<td>Construction Safety and Site Management</td>
<td>3.0</td>
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<td>SHME 120</td>
<td>Front Sheet Metal</td>
<td>2.0</td>
<td>28.0</td>
<td>SFTY 126*</td>
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<tr>
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<tr>
<td>SHOP 109</td>
<td>Automotive Shop Fundamentals</td>
<td>4.0</td>
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<tr>
<td>SHOP 110</td>
<td>Fabrication Techniques</td>
<td>4.0</td>
<td>60.0</td>
<td>DRFT 189</td>
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<tr>
<td>SHOP 124</td>
<td>Hand Tools and Shop Safety</td>
<td>3.0</td>
<td>45.0</td>
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</table>

You will focus your studies on elements of organizational culture and behavior which directly impact the effectiveness of an occupational health and safety system. You will explore safety systems, safety culture, learning organizations, responsibility systems, legislation, risk management, accident causation, auditing program elements, and management theories relate to health and safety. You will develop inspection and accident investigation skills.

You will study the Government of Canada course developed to meet the mandatory requirements for the acquisition of firearms set out in the Criminal Code of Canada. You will also study the provincial Saskatchewan Association for Firearm Education (SAFE) Hunter Education course developed to meet the mandatory requirements set out in The Wildlife Act, 1998 for hunters. You will acquire the knowledge and skills to demonstrate basic firearms safety practices, ammunition, parts of firearms, firing techniques and procedures as well as safe storage, display, transportation and handling.

You will receive health and safety training specific to hazards you may encounter during environmental inspections, enforcement activities and emergency response (including selecting appropriate safety equipment and clothing). You will evaluate incident damage as well as prescribe post incident mitigation.

You will learn the rights and responsibilities of each participant and how to manage the activities on a construction site in a safe and effective manner.

You will develop skills that will help you choose the correct tools for the job at hand. You will develop a work place safety plan and identify hazards in the shop area. You will learn about fasteners and threading procedures, and develop skills in using precision measuring tools as well as basic hand fabrication.
### SHOP 125 Machine Safety and Operation

**Credit Units:** 3.0  **Course Hours:** 45.0

You will learn about machine safety procedures when working around and operating agricultural equipment. You will learn to move tractors, towed equipment, windrowers and combines safely in a shop setting. You will become certified in the operation of forklifts and skid steer loaders.

### SHOP 144 Fabrication Techniques

**Credit Units:** 5.0  **Course Hours:** 75.0

Equivalent Course(s): SHOP 102

You will be introduced to the practical aspects of fabricating electronic prototypes and products. You will learn about surface mount and through-hole component identification, safe component handling, leaded and lead-free soldering, wire and cable, connectors, fasteners, hardware, chemicals and metalworking as they relate to the electronics field. The practical skills you will develop include soldering, de-soldering, wire harness assembly, chassis fabrication, chassis assembly and component and assembly testing. You will construct several electronic products as a core element of this course.

### SHOP 145 Installation Practices

**Credit Units:** 4.0  **Course Hours:** 60.0

Your studies will include terminating cables and describing installation safety practices. You will practice your residential and commercial installation and troubleshooting skills using a variety of systems including coax, entertainment, security, telephone and wireless.

### SHOP 146 Premises Cabling

**Credit Units:** 3.0  **Course Hours:** 45.0

**Prerequisite(s):** TELE 113*

You will be introduced to voice, data, and video (VDV) cabling practices. You will practice terminating coaxial, Category 5/6, and fiber optic cables. You will test and troubleshoot various VDV cable types and perform repair or replacement. Your studies will help prepare you to be recognized by the Fiber Optics Association (FOA).

### SHOP 184 Mechanical and Electrical Skills

**Credit Units:** 3.0  **Course Hours:** 42.0

You will learn how to disassemble and reassemble a compressor, set controls and learn troubleshooting skills using simulators. Your training will also include troubleshooting and repair of domestic refrigerators.

### SHOP 186 Mechanical Components and Systems Lab

**Credit Units:** 2.0  **Course Hours:** 24.0

You will have an opportunity to widen your exposure to mechanical components and systems. The knowledge you acquire will serve as a foundation for upper level courses. Your studies will focus on the application and operation of the components and systems rather than their use in the design process. You will work with and disassemble or assemble some of the components (others will be demonstrated for you). Some of the items you will investigate include bearings, shafts, chain belt and gear drives, hydraulic pumps, motors and cylinders, pneumatic systems, conveyors, and pneumatic and hydraulic flow and pressure control valves.

### SIMU 100 Clinical Orientation

**Credit Units:** 2.0  **Course Hours:** 30.0

**Prerequisite(s):** ECRD 180, ETHC 185, PROC 183, HSTC 188, MICR 190

You will participate in a 30 hour simulation to help prepare you for your clinical experience. The course will focus on skill development in laboratory and ECG. The experience will assist you to correlate your theory to real patient situations. You will demonstrate your ability to prioritize, organize, and implement procedures. Your ability to apply professional practice will be stressed. You will discuss workplace documents and effective job search strategies.

### SIMU 280 Clinical Simulation

**Credit Units:** 9.0  **Course Hours:** 140.0

**Prerequisite(s):** CHEM 184, ECRD 180, ETHC 181, ETHC 185, ETHC 280, IMRC 182, IMRC 183, PATH 179, RSAP 180, PATH 181, QC 193, PROC 181, QC 194, RDGB 184, RDGR 283

You will participate in a 140 hour simulation that will help prepare you for your clinical experience. The course will focus on skill development in x-ray, laboratory and ECG. The experience will assist you to correlate your theory to real patient and laboratory situations. You will demonstrate your ability to prioritize, organize and implement procedures in all disciplines. Your ability to apply professional practice will be stressed.
SIMU 281 Clinical Preparation
Credit Units: 8.0    Course Hours: 120.0
Prerequisite(s): ETHC 182, ETHC 280, RDGR 190, IMRC 182, IMRC 183, PATH 184, RDBG 184, RDGR 283, RDGR 284, RDTM 280, RDTM 281
You will participate in a 120 hour simulation designed to prepare you for your first clinical experience. The course will focus on skill development in the areas of patient care, diagnostic imaging procedures, equipment operation and quality control procedures. You will assume a variety of roles as you engage in authentic scenarios typically encountered in clinical radiographic practice. This experience will assist you to correlate your theory to real patient situations. Your ability to apply general employability skills will be stressed.

SIMU 282 Simulation Laboratory
Credit Units: 3.0    Course Hours: 48.0
Prerequisite(s): ETHC 280, ETHC 185, HSTC 187, HEMA 191, BIOL 181, CYTO 184, CYTO 281, CYTO 282, CYTO 283, CYTO 286, CYTO 287, IMMU 183
You will participate in a 48-hour simulation laboratory designed to reflect clinical setting expectations. You will microscopically evaluate known gynecological and non-gynecological specimens using appropriate terminology and scientific knowledge.

SLGT 140 Beef and Pork Slaughtering
Credit Units: 2.0    Course Hours: 30.0
You will learn humane slaughtering and butchering skills for beef and pork. This includes stunning, sticking, skinning, gutting, splitting and dressing carcasses for federal inspection.

SNOW 111 Fuel Systems
Credit Units: 2.0    Course Hours: 30.0
Equivalent Course(s): SNOW 200
You will focus on carburetor theory and the servicing of fuel delivery systems on snowmobiles. You will also learn how to diagnose fuel system malfunctions and service oil injection systems.

SNOW 112 Engine Management Systems
Credit Units: 1.0    Course Hours: 21.0
Equivalent Course(s): SNOW 201
You will learn about the electronic engine management systems used on current model snowmobiles, including the theory of operation and testing procedures of electronic fuel injection (EFI) systems. You will also learn about carburetor compensating systems.

SNOW 113 Starting, Charging and Ignition Systems
Credit Units: 4.0    Course Hours: 54.0
You will focus on the repair of recoils and the servicing of snowmobile starting, charging and lighting systems. You will learn the theory of operation of various ignition systems used for snowmobile engines. You will also learn about the techniques and tools used to diagnose ignition malfunctions.

SNOW 114 Drive Systems
Credit Units: 2.0    Course Hours: 30.0
Equivalent Course(s): SNOW 207
You will study snowmobile drive systems and learn how to recondition and align components.

SNOW 115 Two-Stroke Engines
Credit Units: 4.0    Course Hours: 66.0
You will focus on two-stroke engine overhauls, including pistons, rings, and crankshafts and diagnosing engine malfunctions. You will also study snowmobile cooling systems and learn how to service these systems.

SNOW 116 Snowmobile Four-Stroke Engines
Credit Units: 2.0    Course Hours: 30.0
Equivalent Course(s): SNOW 205
You will learn the theory of operation and the servicing of snowmobile four-stroke engines. You will also be provided with the opportunity to research future trends in the snowmobile industry.

SNOW 117 Chain Cases and Suspensions
Credit Units: 3.0    Course Hours: 42.0
Equivalent Course(s): SNOW 208
You will learn how to service chain cases, brakes and track and rear suspensions.

SNOW 118 Steering Systems
Credit Units: 2.0    Course Hours: 30.0
Equivalent Course(s): SNOW 209
You will learn how to service snowmobile front steering and suspension systems, including the procedures for recharging gas shock absorbers.
### Course Descriptions

**SOCI 100 Introduction to Sociology**  
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): SOCI 160  
You will examine how to practice sociology, and learn about the importance of culture and socialization. You will discuss social inequality in Canada, the power of mass media and the dualism of sex and gender. You will examine race, ethnicity, social control, and deviance. Your studies will also include a discussion of collective behaviour, social movements, and social change.

**SOCI 160 Foundations of Sociology**  
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): SOCI 160CE, SOCI 184  
Using your sociological imagination, you will examine how to practice sociology, and learn about the importance of culture, socialization, and the family. You will discuss social inequality in Canada, as well as explore the concepts of social control and deviance. Your studies will also include issues related to the power of mass media, the dualism of sex and gender, and race and ethnicity. You will have an opportunity to examine collective behavior, social movements, social change, and globalization.

**SOCI 170 Sociology**  
Credit Units: 3.0  
Course Hours: 45.0  
Equivalent Course(s): SOCI 282  
You will be introduced to the field of sociology. The focus will be on patterns of social behavior and the relation of the individual to society. The social forces influencing behavior will also be examined. Topics include socialization, culture, family, deviance, economics, social change, population, and sociological perspectives.

**SOCI 171 Culture and Diversity in Canadian Society**  
Credit Units: 3.0  
Course Hours: 45.0  
You will explore culture and diversity in Canada and the challenges they present. You will discuss the impacts of oppression, multiculturalism, immigration, social inequalities, and social justice at both personal and professional levels. You will discuss the historical and contemporary challenges of Indigenous peoples. You will also examine tools to foster social change and diversity competencies.

**SOCI 184 Sociology A**  
Credit Units: 3.0  
Course Hours: 40.0  
Equivalent Course(s): SOCI 160, SOCI 184CE  
The course provides an introduction to the sociological perspective and addresses the study of people as social beings. You will examine culture, socialization processes and social inequality.

**SOCI 185 Sociology B**  
Credit Units: 3.0  
Course Hours: 40.0  
Prerequisite(s): SOCI 184  
Equivalent Course(s): SOCI 185CE, SOCI 260, SOCI 282  
Building on what you learned in SOCI 184, you will examine the importance of a sociological understanding in human service professions. You will study social institutions, social deviance, and issues facing mainstream and marginalized people in Canada.

**SOCI 200 Culture and Diversity in Health Sciences**  
Credit Units: 3.0  
Course Hours: 49.0  
Equivalent Course(s): NRSG 235, SOCI 261  
You will explore the cultural diversity of Canadian society. You will discuss immigration trends, cultural values and the implications to the provision of health services. Cultural safety in healthcare and the role of the health care professional will be discussed in context.

**SOCI 201 Culture and Diversity in Health Sciences**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s): SOCI 160  
Equivalent Course(s): SOCI 201CE  
You will explore the cultural diversity of Canadian society. You will discuss immigration trends, cultural values and the implications to the provision of health services. Cultural safety in healthcare and the role of the health care professional will be discussed in context.
SOCI 260 Sociology of Families
Credit Units: 3.0  Course Hours: 39.0
Prerequisite(s):  SOCI 160
Equivalent Course(s):  FMLY 181, SOCI 260CE
The course examines changing family patterns in Canada, and analyzes how social factors influence family relationships. You will examine topics such as the functions and roles of families, changing definitions of the family, the development of intimate relationships, parenthood and child raising, how paid and unpaid work affect family life, divorce, and family violence.

SOCI 261 Sociology 3
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  SOCI 160
Equivalent Course(s):  SOCI 261CE
You will explore the cultural diversity of Canadian society. You will discuss immigration trends, cultural values and the implications to the provision of health services. Cultural safety in healthcare and the role of the health care professional will be discussed in context.

SOCI 300 Culture and Diversity in Canadian Society
Credit Units: 3.0  Course Hours: 45.0
You will explore culture and diversity in Canada. You will assess the impacts of oppression, multiculturalism, immigration, social inequalities, sex and gender, race, religion, and ability. You will explain the social, cultural and historical contexts of Indigenous peoples. You will also evaluate tools to foster social change and diversity competencies.

SOIL 100 Soil Analysis 1
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  TERR 100
Equivalent Course(s):  SOIL 120
Your studies will focus on data collection, analysis and reports for the identification, classification and determination of properties of earth materials. You will perform industry-standard test procedures on soil and aggregate as well as evaluate the methods to determine results.

SOIL 101 Soil Analysis 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  SOIL 100
Equivalent Course(s):  SOIL 220
You will be introduced to the physical properties, mechanics and engineering applications of soils. You will study theoretical background for designing, inspecting and evaluating construction using earth materials.

SOIL 102 Soil Testing, Taxonomy and Classification
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s):  TERR 101
Corequisite(s):  ENVR 101
Your studies will focus on data collection, analysis and reports for the identification, classification and determination of properties of earth materials. You will perform industry-standard test procedures on soil and aggregate. You will evaluate the methods and determine the results. Extending your knowledge of fluvial and glacial geomorphologic processes gained in previous courses, you will use this as a foundation for the study of soils and parent material from a Saskatchewan landscape perspective.

SOIL 120 Soil Analysis
Credit Units: 3.0  Course Hours: 52.0
Equivalent Course(s):  SOIL 100
Your studies will focus on data collection, analysis and reports for the identification, classification and determination of properties of earth materials. You will perform industry-standard test procedures on soil and aggregate. You will evaluate the methods and determine the results.

SOIL 200 Soil and Crop Nutrition
Credit Units: 3.0  Course Hours: 45.0
You will examine the principles of soil formation, management and soil fertility. You will also learn soil sampling strategies, the interpretation of soil test reports and basic fertilizer blending.

SOIL 220 Soils
Credit Units: 4.0  Course Hours: 64.0
Prerequisite(s):  SOIL 120
The course provides an introduction to the physical properties, mechanics and engineering applications of soils. You will acquire the theoretical background for designing, inspecting and evaluating construction using earth materials.
### SOIL 221 Highway Materials
Credit Units: 3.0  Course Hours: 48.0
Prerequisite(s):  SOIL 220, PAVE 220
Using previously learned laboratory skills, you will investigate, design and evaluate soil, aggregate and related materials for use in streets, highways and other earth structures.

### SOIL 222 Geotechnical Design
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s):  SOIL 221
You will learn how to test, design and evaluate municipal waste containment systems, earth and water retaining structures and soil foundation systems. To enhance design safety, you will also analyze earth failure mechanisms.

### SPCR 100 Transferring Lifting Repositioning (TLR®) ©
Credit Units: 1.0  Course Hours: 8.0
Equivalent Course(s):  SPCR 100CE
You will participate in activities to move and position clients/objects in health care settings using minimal physical effort and maximizing the use of mechanical aids and equipment. The course focuses on client/caregiver safety. You will receive a Transferring Lifting Repositioning (TLR®) © certificate from Saskatchewan Association for Safe Workplaces in Health (SASWH) upon successfully completing the course.

### SPCR 101 Observing, Reporting, and Recording
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  COMM 198, NURS 171, SPCR 101CE
You will learn written and oral communication skills required in the work place. The course content includes basic concepts of simple arithmetic, basic medical terminology, concept mapping, observing and reporting on client’s status, client and personal work plans.

### SPCR 102 End of Life Care
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  SPCR 102CE
Your studies will cover death and dying in the Canadian context. You will study the basic needs and interventions of the dying client. You will also cover grief, the grieving process and the impact of life threatening illnesses on the family members.

### SPCR 103 Assisting with Special Procedures
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  SPCR 103CE
You will be introduced to the Continuing Care Assistant’s role in assisting with special procedures. You will learn the concepts of delegation, carry out basic measurements, perform simple treatments and be introduced to client assessment. You will also learn the Continuing Care Assistant’s role in assisting clients with medications.

### SPCR 104 Personal Care 1
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  SPCR 104CE
You will have the opportunity to become skilled at assisting clients in meeting personal care needs. You will study infection control, body mechanics, bed making, positioning clients, range of motion, oral care, and assisting to feed clients.

### SPCR 105 Personal Care 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  SPCR 104
Equivalent Course(s):  SPCR 105CE
Building on the skills you learned in Personal Care 1, you will become skilled at assisting clients in meeting personal care needs. You will study grooming and dressing, foot and nail care, and elimination care.

### SPCR 180 Safe Environment
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s):  SPCR 180CE
You will learn how to promote client independence in a safe, comfortable and pleasant environment. You will study fire safety, emergency response and WHMIS.

### SPCR 184 Post Acute Care
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  SPCR 184CE
You will acquire the theory and develop the skills needed to help clients meet their needs in the post acute care phase. This may include post surgical clients or clients with recent acute medical conditions.
## Course Descriptions

### SPCR 192 Personal Competence
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s):  SPCR 192CE

Your studies will focus on the goals and philosophy of Health Care Services in Saskatchewan. You will learn how these goals are reflected in the activities of the agency and on your role as a caregiver. You will learn about your role in providing care services within a multicultural dynamic setting. The course content also includes interprofessional work environments, personal health, employability skills, and types of abuse (for example: caregiver, neglect and abandonment, sexual and financial).

### SPCR 284 Special Needs 1
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s):  NEPS 291, SPCR 284CE

Your studies will cover the basic needs and interventions of clients with disruptions in their sensory organs, body systems (i.e. cardiovascular, musculoskeletal, neurological and endocrine) and body functions (i.e. genitourinary and gastrointestinal).

### SPCR 285 Special Needs 2
Credit Units: 2.0  Course Hours: 30.0  
Prerequisite(s):  SPCR 284  
Equivalent Course(s):  SPCR 285CE

Your studies will cover the basic needs and interventions of clients with infectious diseases, cancer, altered mental abilities, disruption in mental health, and alcohol and drug dependency. You will learn the specific care required for bariatric clients.

### SPSY 100 Ethics and Professionalism
Credit Units: 3.0  Course Hours: 45.0  
Equivalent Course(s):  SPSY 100CE

You will learn the concepts of professional behaviour and ethics as they apply to the field of victim services. You will also have the opportunity to develop a safety plan, resume/portfolio and practice job interview skills.

### SPSY 101 Introduction to Disability Support Worker and Services
Credit Units: 4.0  Course Hours: 60.0  
Equivalent Course(s):  SPSY 101CE

You will examine the services available for persons with disabilities. You will study the professional role and expectations of disability support workers. You will be introduced to legislation that governs employer/employee relationships and to the importance of diversity and cultural inclusion in the workplace.

### SPSY 119 Interpersonal Violence Strategies
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s):  SPSY 119CE, SPSY 141

You will study interpersonal violence in both family and community situations. You will apply this knowledge to understanding the perpetrator and the victim when planning interventions. You will examine the role of community resources available to support families in urban centres and First Nations communities.

### SPSY 121 Addictions
Credit Units: 3.0  Course Hours: 48.0  
Prerequisite(s):  COMM 112, CORR 134  
Equivalent Course(s):  YCW 284

You will examine the nature of addictions and the various treatment options available both in institutions and the community.

### SPSY 123 Suicide Intervention
Credit Units: 1.0  Course Hours: 16.0

You will examine suicide in the institutional setting and suicide risk assessment tools. You will learn suicide prevention techniques by completing the Living Works Program.

### SPSY 124 Professionalism and Ethics in Corrections
Credit Units: 3.0  Course Hours: 40.0  
Equivalent Course(s):  SPSY 184

You will examine the roles of values clarification and morals in the field of corrections. You will apply these skills as they apply to professionalism and ethics in the workplace. You will examine the concepts of respectful communication in a workplace setting.
Course Descriptions

SPSY 125 Mental Health Strategies
Credit Units: 2.0  Course Hours: 25.0
You will learn how to respond appropriately to individuals exhibiting signs and symptoms of mental illness.

SPSY 140 Addictions and Mental Health
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  YCW 284
You will examine the theoretical perspectives of addictive behaviors with a focus on substance abuse and problematic gambling. You will examine the link between mental health issues and addictions. You will also apply intervention skills for dealing with individuals exhibiting problematic behaviors.

SPSY 160 Professional Behaviour & Ethics
Credit Units: 3.0  Course Hours: 45.0
You will learn the concepts of professional behaviour as they apply to the field of court services.

SPSY 184 Youth Criminal Justice
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PRAC 385
Equivalent Course(s):  SPSY 183, SPSY 184CE
You will be introduced to the Canadian criminal justice system. You will explore the history of juvenile justice and will examine the impact of custodial placement on youth in conflict with the law. You will examine sentencing, correctional placement, parole and conditional release for youth and adult offenders. You will be introduced to the roles of police, judges, prosecutors, and defence lawyers working with youth in conflict with the law.

SPSY 185 Introduction to Disability Support Services
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  SPSY 185CE
You will study the philosophy, perceptions, values and political forces that have shaped services for people with disabilities. You will examine the services available for persons with disabilities. You will study the evolution and outcomes of person-centred approaches.

SPSY 186 Understanding Exceptionalities 1
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  SPSY 186CE, SPSY 281
You will be introduced to the range of exceptionalities that persons with disabilities may experience across the lifespan. You will explore the role of the disability support worker who supports persons with exceptionalities. You will study principles and practices that underlie the care and education of people with exceptionalities, disabilities and disorders.

SPSY 279 Children with Diverse Abilities 1
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PRAC 181 or PRAC 105
Equivalent Course(s):  SPSY 279CE, SPSY 281
The course provides an introduction to the study of children with diverse abilities and needs. You will examine practices related to identification, intervention and prevention of specific diverse abilities. You will also discuss historical and current approaches, trends, and issues.

SPSY 280 Introductory Psychology
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s):  PSYC 160, PSYC 184
The course provides an introduction to the field of psychology. You will develop an increased awareness of human behaviour. The course content includes a general introduction to psychology, learning, cognition, personality, motivation and personality disorders.

SPSY 281 Studies of Exceptionality A
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  SPSY 281CE
You will be provided with an introduction to the area of exceptionalities. You will discuss issues and trends in the field and problems associated with defining and identifying individuals with exceptionalities. You will study, in depth, specific areas of exceptionality: speech and language differences, learning disabilities, intellectual disabilities and giftedness. Emphasis will be on the developmental consequences of having a disability and intervention strategies used with individuals with disabilities.
**SPSY 282 Studies of Exceptionality B**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s):  SPSY 281  
Equivalent Course(s):  SPSY 282CE  
You will study in depth specific areas of exceptionality: emotional and behavioural disorders, sensory impairments, traumatic brain injury and other low-incidence disabilities, attention deficit/hyperactivity disorder, autism, and fetal alcohol spectrum disorder. Emphasis will be on the developmental consequences of having a disability and intervention strategies used with individuals with disabilities. You will review classroom organization and management with students with special learning needs, issues related to special education in secondary schools, and working with families of students with exceptionalities.

**SPSY 287 Professional Role**  
Credit Units: 2.0  
Course Hours: 30.0  
Equivalent Course(s):  SPSY 287CE  
You will study the professional role and expectations of disability support workers. You will examine scope of practice, ethics, accountability, supported decision making, and teamwork in the occupational role. You will be introduced to legislation that governs employer/employee relationships. You will study cultural diversity and the importance of cultural sensitivity in the workplace.

**SPSY 289 Children with Diverse Abilities 2**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s):  SPSY 279  
Equivalent Course(s):  SPSY 282, SPSY 289CE  
The course continues the study of children with diverse abilities by addressing developmentally appropriate programming for young children with diverse abilities. You will study assessment, individualized planning and program planning in inclusive settings.

**SPSY 290 Abnormal Psychology**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s):  PRAC 385  
Equivalent Course(s):  SPSY 290CE  
You will be introduced to the psychological and social disorders seen in youth at risk. You will learn how these disorders are manifested, screened, assessed, and treated.

**SPSY 291 Understanding Exceptionalities 2**  
Credit Units: 3.0  
Course Hours: 45.0  
Prerequisite(s):  SPSY 186  
Equivalent Course(s):  SPSY 282, SPSY 291CE  
You will study health disorders, challenges with concurrent health conditions and the role of the disability support worker. You will focus on the developmental consequences of having a disability and intervention strategies.

**SRVY 102 Surveying 1**  
Credit Units: 5.0  
Course Hours: 75.0  
Equivalent Course(s):  SRVY 120  
You will be introduced to basic surveying concepts. You will develop skills in leveling, angle and direction measurement, computations, traverses and drafting plans.

**SRVY 103 Surveying 2**  
Credit Units: 4.0  
Course Hours: 60.0  
Prerequisite(s):  MATH 138, SRVY 102  
Equivalent Course(s):  SRVY 222  
You will focus on topographic surveys using Total Stations with data collection. You will study survey drawings and maps, contours, profiles and cross sections. You will practice calculating construction volumes and calculating horizontal as well as vertical curves. You will be introduced to survey control using local grids, Universal Transverse Mercator (UTM) and the Western Canada Land Survey System.

**SRVY 104 Survey Data Interpretation for Design Drafting**  
Credit Units: 3.0  
Course Hours: 45.0  
You will be introduced to the basics of surveying and the use of 2D and 3D coordinate systems in surveying. You will relate survey data to engineering design, including an introduction to levelling, total stations, Global Positioning Systems (GPS) and 3D Scanning. Your studies will focus on current surveying techniques and equipment.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units:</th>
<th>Course Hours:</th>
<th>Corequisite(s):</th>
<th>Prerequisite(s):</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRVY 105</td>
<td>Introduction to Surveying 1</td>
<td>2.0</td>
<td>30.0</td>
<td></td>
<td>SRVY 106</td>
<td>You will study the basics of surveying. Your studies will focus on ground based techniques. The course topics include differential levelling, physical and electronic distance measurements, horizontal and vertical angle measurement and traversing. You will use electronics survey instrumentation and 2D coordinate systems in surveying. You will solve coordinate geometry (COGO) survey problems.</td>
</tr>
<tr>
<td>SRVY 106</td>
<td>Introduction to Surveying 1 Lab</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>SRVY 105</td>
<td>You will apply the basics of surveying. Your applications will focus on ground based techniques. The course topics include differential levelling, physical and electronic distance measurements, horizontal and vertical angle measurement and traversing. You will use electronics survey instrumentation and the use of 2D coordinate systems in surveying.</td>
</tr>
<tr>
<td>SRVY 120</td>
<td>Surveying 1</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td></td>
<td>You will receive an introduction to the basics of surveying. The course content includes horizontal measurements, levelling, angle and direction measurement, computations, traverses and drafting plans.</td>
</tr>
<tr>
<td>SRVY 123</td>
<td>Surveying 2</td>
<td>4.0</td>
<td>60.0</td>
<td>MATH 182, SRVY 120</td>
<td></td>
<td>Building on the skills developed in SRVY 120 (Surveying 1), you will focus on topographic surveys using Total Stations with data collection. You will be introduced to survey drawings and maps, contours, profiles and cross sections. You will complete calculations for construction surveys. You will be introduced to survey control using local grids, Universal Transverse Mercator (UTM) coordinate system and the Dominion Land Survey System.</td>
</tr>
<tr>
<td>SRVY 201</td>
<td>Introduction to Surveying 2</td>
<td>4.0</td>
<td>60.0</td>
<td>SRVY 105, SRVY 106</td>
<td></td>
<td>You will study route location surveys, basic curve use in surveying, digital terrain modeling and topographic surveys. The course adds to your previous knowledge by exploring advanced topics in coordinate geometry (COGO) and digital data collection. You will also study safe work practices and gain practical experience working with survey instrumentation. Your studies and practical experience will prepare you for participation in small surveying projects.</td>
</tr>
<tr>
<td>SRVY 202</td>
<td>Least Squares 1 and Survey Instrumentation</td>
<td>3.0</td>
<td>45.0</td>
<td>MAT 112, SRVY 201</td>
<td></td>
<td>You will be introduced to fundamental least squares topics with geomatics applications. You will discuss the topics of errors and weighting in least squares. You will solve basic least squares survey problems. Your studies will explore how survey instrumentation works and the basic process of instrument adjustment and calibration.</td>
</tr>
<tr>
<td>SRVY 203</td>
<td>Least Squares 2 and Control Surveys</td>
<td>3.0</td>
<td>45.0</td>
<td>SRVY 202</td>
<td></td>
<td>You will study advanced least squares topics with geomatics applications. You will be introduced to the concept of control surveys. Your studies will explore least square use in traverse and control surveys. You will perform control surveys, adjust and analyze the results.</td>
</tr>
<tr>
<td>SRVY 204</td>
<td>Advanced Surveying Applications</td>
<td>4.0</td>
<td>60.0</td>
<td>SRVY 202</td>
<td></td>
<td>You will study and gain practical experience in a range of surveying applications. The course covers azimuth determination, high precision levelling, introductory monitor surveys, advanced topics in digital data collection, automated survey instrumentation, introductory underground surveys and engineering/construction surveys.</td>
</tr>
</tbody>
</table>

Register online at saskpolytech.ca or call 1-866-467-4278
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRVY 205</td>
<td>Surveying Field and Office Projects</td>
<td>4.0</td>
<td>60.0</td>
<td>SRVY 204</td>
</tr>
<tr>
<td></td>
<td>You will learn the fundamental steps involved in successfully completing a geomatics project of your choice. You will draw on your previous technical and practical experience to complete the project within an established framework. You will analyze, present and discuss your project results.</td>
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</tr>
<tr>
<td>SRVY 206</td>
<td>Underground Surveying</td>
<td>4.0</td>
<td>60.0</td>
<td>CAMP 105, SRVY 123</td>
</tr>
<tr>
<td></td>
<td>You will apply the concepts of coordinate systems in underground mine. You will learn fundamentals of underground surveying skills with the use of latest survey equipment.</td>
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</tr>
<tr>
<td>SRVY 222</td>
<td>Surveying</td>
<td>4.0</td>
<td>65.0</td>
<td>MAT 101, SRVY 120</td>
</tr>
<tr>
<td></td>
<td>Equivalent Course(s): SRVY 103</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building on the skills developed in SRVY 120 (Surveying 1), you will focus on topographic surveys using Total Stations with data collection. You will be introduced to survey drawings and maps, contours, profiles and cross sections, calculating construction volumes, and calculating horizontal and vertical curves. You will also be introduced to survey control using local grids, UTM and the Western Canada Land Survey System.</td>
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</tr>
<tr>
<td>SRVY 228</td>
<td>Surveying: Introduction to Survey and Building Layout</td>
<td>3.0</td>
<td>45.0</td>
<td>SRVY 120</td>
</tr>
<tr>
<td></td>
<td>Equivalent Course(s): SRVY 120</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>You will receive an introduction to the basics of surveying. The course content includes horizontal measurements, levelling, angle and direction measurement, computations.</td>
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</tr>
<tr>
<td>STAT 100</td>
<td>Introductory Statistics</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td>STAT 101</td>
<td>Introductory Statistics and Computer Applications</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td>STAT 120</td>
<td>Business Statistics</td>
<td>4.0</td>
<td>64.0</td>
<td>Equivalent Course(s): ACP 374, STAT 120CE</td>
</tr>
<tr>
<td>STAT 122</td>
<td>Introductory Statistics</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td>STAT 181</td>
<td>Introductory Statistics and Computer Applications 1</td>
<td>3.0</td>
<td>45.0</td>
<td>Prerequisite(s): MATH 178*</td>
</tr>
</tbody>
</table>

Register online at saskpolytech.ca or call 1-866-467-4278
Course Descriptions

STAT 200 Statistics for Technology
Credit Units: 2.0  Course Hours: 30.0
You will gain knowledge of statistical concepts and techniques applicable to technologies. You will study descriptive statistics, measures of central tendency and dispersion, basic probability, the Central Limit Theorem, and linear regression. This course is intended to build problem solving and critical thinking skills, and to demonstrate the importance of statistics in professional practices.

STAT 201 Statistics for Engineering Technology
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): MAT 233, STAT 120, STAT 220
You will gain knowledge of statistical concepts and techniques applicable to engineering technology. You will study descriptive statistics, probability distributions, the Central Limit Theorem, inferential statistics and linear regression. This course is intended to build problem solving and critical thinking skills, and to demonstrate the importance of statistics in professional practices.

STAT 202 Introductory Statistics
Credit Units: 3.0  Course Hours: 49.0
You will learn statistical methods of analysis and inference including descriptive measures, frequency distributions, probability, confidence intervals, hypothesis testing for population means and proportions, analysis of variance, as well as correlation and regression techniques.

STAT 220 Statistics for Geomatics
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): MAT 102, MAT 103
You will be introduced to basic statistics and probability as required in surveying computations. This course briefly covers some inferential statistics of estimation and testing, and regression and correlation analysis.

STAT 260 Statistics for Health Sciences
Credit Units: 4.0  Course Hours: 60.0
Equivalent Course(s): STAT 190, STAT 260CE
You will learn statistical methods of analysis and inference including descriptive measures, frequency distributions, probability, confidence intervals, hypothesis testing, analysis of variance, and correlation and regression techniques. The emphasis in this course is on statistical applications, with problems chosen from the health sciences field.

STAT 281 Statistics and Computer Applications
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): STAT 101
You will be introduced to hypothesis testing, analysis of variance, experimental design, non-parametric tests, and the application of spreadsheets to statistical analysis.

STAT 285 Introductory Statistics
Credit Units: 2.0  Course Hours: 32.0
Prerequisite(s): COMP 172
You will be introduced to basic statistical methods and the use of calculators and computers in solving statistical problems. Statistical applications relevant to the Veterinary Technology Program will be emphasized.

STAT 286 Statistics and Computer Applications 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): STAT 181, MATH 278
You will study statistical topics including confidence intervals, hypothesis testing, regression and correlation analysis, and categorical data analysis. Advanced topics of analysis of variance, experimental design, non-parametric test, advanced regression and bioinformatics will also be studied. You will utilize statistical programs and spreadsheets in the study of statistical applications.

STAT 300 Statistics and Risk Analysis
Credit Units: 3.0  Course Hours: 45.0
Your studies will focus on descriptive statistics and presentation techniques; probability theory and inferential statistics including applications based on simple random sampling, confidence intervals, hypotheses testing and regression-correlation analysis. You will also examine statistical methods related to risk management in the construction industry.

STAT 403 Statistics and Statistical Software for Resource Managers
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): STAT 122
Building predictive models from empirical data lies at the heart of resource management procedures. You will apply statistics to compare samples and make management decisions based on comprehensive data analysis. You will use statistical software to predict outcomes and compare samples. You will prepare data analyses to help you make resource management decisions.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 600</td>
<td>Business Statistics</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>STEA 100</td>
<td>Hydronic Heating Systems</td>
<td>7.0</td>
<td>100.0</td>
</tr>
<tr>
<td>STEA 101</td>
<td>Introduction to Steam Boilers</td>
<td>2.0</td>
<td>35.0</td>
</tr>
<tr>
<td>STEA 286</td>
<td>Steam Generation (Third Class)</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td>STEA 287</td>
<td>Steam Generation (Second Class)</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>STER 102</td>
<td>Steering Systems Theory</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>STER 103</td>
<td>Steering Systems Shop</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>STER 104</td>
<td>Steering and Directional Control Systems Theory</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>STER 105</td>
<td>Steering and Directional Control Systems Shop</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td>STER 106</td>
<td>Steering and Suspension 1</td>
<td>4.0</td>
<td>60.0</td>
</tr>
</tbody>
</table>

You will gain knowledge of statistical concepts and techniques applicable to accounting and management. You will study descriptive statistics, measures of central tendency and dispersion, probability distributions, the Central Limit Theorem, and linear regression. This course is intended to build problem solving and critical thinking skills, and to demonstrate the importance of statistics in professional practices.

The course covers the various boilers and the components of a hot water heating system. You will briefly discuss hydronic cooling. You will study a typical boiler installation with associated piping. You will be introduced to the hydronics code and how it applies to a residential or small commercial heating system. You will cover the practice of installing various boilers and the components of a hot water heating system. You will briefly discuss hydronic cooling. You will demonstrate a typical boiler installation with associated piping. You will put into practice the hydronics code and apply it to a residential or small commercial heating system.

Your studies will include various low pressure steam systems. You will cover terms and definitions and the basic operation of LPS heating systems. You will discuss an overview of equipment use and low pressure steam accessories. Piping arrangements for LPS will also be discussed.

You will focus on basic steering geometry and wheel alignment angles, wheels and tires and tire balancing.

You will learn the design factors of various steam generators and their components. You will study the specialized designs of boilers and their operations and the maintenance and inspection techniques required to operate them safely. You will learn to install and operate large centrifugal pumps in large power plants.

You will study steering systems that are specific to off road equipment. Orbital, pilot control, differential and hydrostatic steering systems will be discussed. You will also discuss various types of auxiliary steering systems used on heavy trucks.

You will perform inspections and repairs on various types of off road steering systems. You will also evaluate various types of auxiliary steering systems such as tandem and trailing axle steering. Pilot control and orbital steering systems will be analyzed.

You will be introduced to the operation, diagnosis and repair of suspension and steering systems.
Course Descriptions

STER 107 Steering and Suspension 2
Credit Units: 4.0  Course Hours: 60.0
You will learn the operation, diagnosis and repair of steering gears and columns. Your studies will help you acquire knowledge and skills in wheel alignment principles and procedures.

STRS 120 Wood Stairs
Credit Units: 4.0  Course Hours: 60.0
You will learn how to calculate and construct basic wood stairs. You will also learn how to calculate the dimensions for basic stairwell opening in residential construction.

STRU 100 Erect and Dismantle Steel Building
Credit Units: 4.0  Course Hours: 66.0
You will learn the process of erecting a steel building, as well as the process of dismantling and safe placing of building components. At the completion of the course, you will be eligible to receive a certificate in the use of powder actuated tools.

STRU 101 Structural Steel
Credit Units: 2.0  Course Hours: 24.0
You will be able to apply safety regulations in the erection of a steel structure. At the completion of the course, you will be eligible to receive Fall Protection Certification in accordance with Occupational Health and Safety standards.

STRU 104 Structural Drafting
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): DRFT 205
You will study to Canadian Standards Association (CSA), Canadian Institute of Steel Standards (CISC), and Resources Information Standards Committee (RISC) standards. You will prepare engineering design drawings, shop drawings and steel reinforced concrete drawings. You will apply Building Information Modelling (BIM) software and techniques to your assignments and project.

STRU 200 Structural Design 1
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): ENG 201
You will apply Canadian codes and standards to the design of basic steel structures. You will learn how to calculate loads using limit states design principles. You will also learn how to design steel beams and columns, detail basic steel connections.

STRU 201 Structural Design 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): STRU 200
Corequisite(s): CVEN 201, MECH 202, MGMT 207, STRU 202
You will apply Canadian codes and standards to the design of timber and concrete members. You will learn how to calculate loads using limit states design principles. You will also learn how to detail timber connections, and detail concrete beams and footings.

STRU 202 Structural Design Project
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): STRU 104, STRU 200
Corequisite(s): CVEN 201, MECH 202, MGMT 207, STRU 201
You will use the expertise and knowledge you acquired in previous semesters to develop, design and draft a building structure using Building Information Modelling (BIM) Technology. You will generate all aspects of the structural design from modeling, collaborating, estimating and drafting appropriate BIM software. Implementing and applying design and drafting standards will be a major part of the course content.

STRU 225 Structural Steel Design
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): STRU 236, STRU 237
You will learn how to design and analyze basic structural steel members using the Limit States Design Method (in accordance with the National Building Code of Canada and the Canadian Standards Association). You will also learn the fundamental standard practices of steel detailing.

STRU 231 Mechanics of Materials
Credit Units: 3.0  Course Hours: 44.0
Prerequisite(s): STRU 236
You will study the buckling potential of structural columns in this advanced mechanics of materials course. You will use Mohrs circle to evaluate stresses in beams and evaluate combined loading. You will also conduct laboratory tests on construction materials and analyze the data collected in the form of written laboratory reports.
### STRU 235 Applied Mechanics
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): MAT 246

You will learn the basic principles of statics which is the study of the effects of forces and moments applied to various objects in static equilibrium (stationary objects). You will use the engineering problem solving approach.

### STRU 236 Mechanics of Materials
Credit Units: 4.0  Course Hours: 55.0  
Prerequisite(s): STRU 235*

You will study basic stress and strain relationships in this introductory mechanics of materials course. You will review centroids and moments of inertia (structural shapes will be emphasized), and calculate shear and bending moment in beams enabling you to draw shear force. You will also study bending moment diagrams and calculate shear stress, flexural stress and deflection at any point on a loaded beam.

### STRU 237 Structures
Credit Units: 3.0  Course Hours: 44.0  
Prerequisite(s): STRU 235*

Your studies will focus on the various types of structures. You will learn how to read structural drawings and interpret specifications. Using the Limit States Design Method (in accordance with the National Building Code of Canada), you will also learn how to determine design loads. You will then use the design loads to calculate the loads on the various structural components.

### STRU 238 Concrete Design
Credit Units: 3.0  Course Hours: 40.0  
Prerequisite(s): STRU 237

Using the Limit States Design Method (in accordance with the National Building Code of Canada and the Canadian Standards Association), you will study the design and analysis of structural reinforced concrete components within standard industry practices. Computer applications will be introduced where appropriate.

### STRU 239 Wood Design
Credit Units: 3.0  Course Hours: 40.0  
Prerequisite(s): STRU 237

Using the Limit States Design Method (in accordance with the National Building Code of Canada and the Canadian Standards Association), you will study the design and analysis of timber components. You will also become familiar with standard industry practices. Computer applications will be introduced where appropriate.

### STRU 240 Structural Design: Structural Steel
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): PHYS 227

You will learn how to do a preliminary design of steel structures as used in commercial buildings. You will use the Handbook of Steel Construction and Part 4 of the National Building Code of Canada to complete a preliminary design of a low-rise building. Your studies will also include and introduction to wood and steel structural design.

### STUC 100 Stucco Application
Credit Units: 4.0  Course Hours: 58.0

The course focuses on stucco application. You will learn the theory of application and acquire hands-on experience. You will also be provided with foundation parging information and experience.

### STUC 101 Stucco Preparation
Credit Units: 3.0  Course Hours: 45.0

The course focuses on preparing the surface for stucco application.

### SUPP 135 Introduction to Mining Safety
Credit Units: 4.0  Course Hours: 54.0  
Prerequisite(s): SUPP 155

You will become familiar with the range of personal protection/fall arrest/respiratory and fire equipment, safe working practices, WHMIS and OH&S regulations.

### SUPP 152 Heavy Equipment Operator
Credit Units: 1.0  Course Hours: 16.0

Your studies will include the minimum training requirements of Saskatchewan Occupational Health and Safety’s Power Mobile Equipment Table 14.1 for Operators.
### SUPP 155 Introduction to Mining Industry

**Credit Units:** 3.0  
**Course Hours:** 40.0  
You will gain an understanding of the types of mineral and metal resources in Saskatchewan, the exploration, development, operations and de-commissioning cycle, and types of surface and underground mining operations.

### SUPR 115 Supervisory Skills

**Credit Units:** 2.0  
**Course Hours:** 30.0  
Equivalent Course(s): SUPR 115CE  
You will examine the fundamentals of supervision. It will cover the role of a supervisor, managing change, communication, working with groups and other supervisory skills.

### SYST 401 Remote Sensing 1

**Credit Units:** 2.0  
**Course Hours:** 30.0  
Equivalent Course(s): SYST 340  
You will be introduced to satellite imagery. Your studies will include remote interpretation techniques for natural resource management applications.

### SYST 402 Remote Sensing 2

**Credit Units:** 2.0  
**Course Hours:** 30.0  
**Prerequisite(s):** SYST 401*  
You will learn important image processing and analysis techniques for remotely sensed data. The techniques include geocorrection, enhancements, filtering, vegetation indices, classification and mosaicking. Your studies will include analyzing lidar imagery.

### TAX 100 Plant Taxonomy and Identification

**Credit Units:** 4.0  
**Course Hours:** 60.0  
You will learn how to identify specific terrestrial and aquatic vegetation by field characteristics and site characteristics.

### TAX 221 Tax 1

**Credit Units:** 6.0  
**Course Hours:** 96.0  
**Prerequisite(s):** ACCT 125  
**Equivalent Course(s):** TAX 221CE  
Your studies will include an introduction to the Income Tax Act including the structure of fiscal legislation, administration, and enforcement practices as they pertain to personal income tax. The course includes the calculation of taxable income, calculation of tax, and the completion of personal income tax returns.

### TAX 222 Tax 2

**Credit Units:** 5.0  
**Course Hours:** 80.0  
**Prerequisite(s):** TAX 221  
**Equivalent Course(s):** TAX 222CE  
Your studies will expand on the material covered in Tax 1 (TAX 221) and you will learn the skills required to solve more complex problems for individual taxpayers. You will study the calculation of taxable income, calculation of corporate tax and the completion of corporate income tax returns.

### TAX 600 Taxation 1

**Credit Units:** 3.0  
**Course Hours:** 45.0  
**Prerequisite(s):** ACCT 601  
Your studies will include an introduction to the Income Tax Act including the structure of fiscal legislation, administration, and enforcement practices as they pertain to personal income tax. The course includes the calculation of taxable income, calculation of tax, and the completion of personal income tax returns.

### TAX 601 Taxation 2

**Credit Units:** 3.0  
**Course Hours:** 45.0  
**Prerequisite(s):** TAX 600  
Your studies will expand on the material covered in Taxation 1 (TAX 600) and you will learn the skills required to solve more complex problems for individual taxpayers. You will study the calculation of taxable income, calculation of corporate tax and the completion of corporate income tax returns.
TAXO 100 Plant Taxonomy and Identification
Credit Units: 4.0  Course Hours: 60.0
You will learn how to identify specific terrestrial and aquatic vegetation by field and site characteristics. The identification will consist of the binomial classification based upon phylogenetic and morphological characteristics. The course includes classifying rare and invasive species and understanding the significance of these species in Saskatchewan. You will be introduced to the Canadian Wetland Classification system as it pertains to identification of wetland vegetation. You will learn the significance of herbaria and conservation data centres and how to access their resources for the purpose of plant identification and species ranking.

TCOM 102 Workplace Communication
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): COMM 191, JOBS 190, JOBS 288, JOBS 290, TCOM 102CE, TCOM 120, TCOM 140, TMGT 180
You will examine the employability skills required in the workplace. You will discuss the communication process, and practice effective interpersonal communication techniques and conflict resolution. You will use workplace writing and job search skills.

TCOM 103 Technical Communication
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): TCOM 102 or COM 170
Equivalent Course(s): COMM 181, COMM 190, TCOM 103CE, TCOM 106, TCOM 123, TCOM 141, TCOM 190
You will use research skills to find technical information and cite it correctly. You will conduct effective meetings and produce supporting documents. As well, you will discuss technical report purposes and formats, write short technical reports and present technical information.

TCOM 104 Applied Research in Technology
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): TCOM 103 or ENGL 101
Equivalent Course(s): COMM 115, COMM 182, COMM 290, TCOM 239
You will develop a technical proposal and apply advanced research skills to a technical problem. You will use the technical problem-solving process in an applied research project and present your research findings in a written report and oral presentation.

TCOM 105 Communications for Technicians
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): COMM 127, TCOM 102, TCOM 105CE
You will learn and practice written, oral and interpersonal communication for the workplace. You will apply these skills as team members and in short presentations. You will also develop effective job search strategies.

TCOM 106 Communications
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s): TCOM 105
Equivalent Course(s): TCOM 103
You will apply basic research skills to create workplace documents. Your studies will focus on the workplace skills of creating effective client relations, conducting meetings and giving presentations.

TCOM 107 Call Processing 1
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): PLPR 100*
You will be introduced to the various components and functions of telephone technology and Computer Aided Dispatch (CAD) systems. You will practice call taking and dispatch of multiple incidents in a simulated laboratory setting.

TCOM 108 Call Processing 2
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): TCOM 107*
Building on the skills learned in Call Processing 1 you will continue to develop skills in call taking and dispatch in a simulated laboratory setting. This course will provide opportunities to apply these skills in situations specific to various emergency services.

TCOM 140 Basic Communication for Technicians
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): TCOM 102, TCOM 120
You will be introduced to communication theory and learn how to apply communication skills in the workplace. You will gain an understanding of the role of communication in your profession. You will develop effective writing skills, including preparation of meeting documents.
## TCOM 190 Technical Communications
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): BCOM 120
Equivalent Course(s): BCOM 121, TCOM 103
You will be introduced to the basic principles of effective technical writing in the computer industry. The necessity of following company standards for documentation will be emphasized. You will review grammar and style, and learn technical formats and report design. The production of technical documentation for a variety of user groups will also be emphasized.

## TCOM 291 Career Path Search
Credit Units: 1.0  Course Hours: 15.0
Equivalent Course(s): JOBS 288, TCOM 295
You will prepare a career path portfolio based on your accumulated skills, qualifications and accomplishments. You will prepare your resume and cover letter to target an IT job posting. In a simulated job interview, you will answer behavioural questions and demonstrate the use of a career path portfolio.

## TCOM 600 Business Technology Communications
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): BCOM 600
You will learn how to manage communication in a business environment using best practices and common software tools. You will learn how to produce effective content delivered with appropriate tools.

## TCOM 601 Technical Communications
Credit Units: 3.0  Course Hours: 45.0
You will use research skills to find technical information and cite it correctly. You will conduct effective meetings and produce supporting documents. As well, you will discuss technical report purposes and formats, write short technical reports and present technical information.

## TCOM 602 Technical Communications
Credit Units: 3.0  Course Hours: 45.0
You will learn how to manage communication in a business environment using best practices and common software tools. You will learn how to produce effective content delivered with appropriate tools.

## TCOM 108 Access Network
Credit Units: 3.0  Course Hours: 45.0
You will describe the telephone handset and its cabling. You will study signal characteristics and subscriber-loops. Your studies will focus on cable characteristics while transmitting voice and line frequencies as well as cable types used as a transmission medium, frequency response and noise tests.

## TELE 109 Modulation Techniques
Credit Units: 1.0  Course Hours: 15.0
You will describe pulse-code-modulation (PCM) and time-division-multiplexing techniques (TDM) as well as data over cable service interface specification (DOCSIS) and digital subscriber line (xDSL) technologies. You will practice your troubleshooting skills in a lab setting.

## TELE 110 Switching and Transport
Credit Units: 1.0  Course Hours: 15.0
You will study the telephony switching concepts used when establishing a connection between the transmit end (calling end) and receiving end (called end). You will describe signalling, digital multiplex system (DMS) based switching, private automatic branch exchange (PABX) theory and programming, plus discussion of transport mediums. You will practice your skills in a lab setting by constructing and verifying a CAT-5 cable-tester and troubleshooting faulty CAT-5 cables.

## TELE 113 Optical Fiber Basics
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s): TELE 113CE
You will be introduced to telecommunication transport technologies. You will practice your fiber cable measuring, splicing and installation skills. Your studies will help prepare you to be recognized by the Fiber-Optics-Association (FOA).

## TELE 114 Wireless Systems
Credit Units: 2.0  Course Hours: 30.0
Your studies will focus on cellular systems, wireless-data techniques and the wireless evolution. You will practice your skills by setting-up a transmit-receive link.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELE 115</td>
<td>Networking Essentials 1</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td></td>
<td>Your studies will include a variety of topics to build your skills and understanding of networking. You will learn about networking devices and the IOS operating system. You will also learn how networks are set up, how devices are configured, how communication takes place on a network, and the basics of implementing network security best practices. You will enhance your confidence in communicating your knowledge and your ability to work in networking-related professions. Note: Upon completion of post course learning activities, you will be eligible to receive a Cisco Certificate of Completion.</td>
</tr>
<tr>
<td>TELE 116</td>
<td>Networking Essentials 2</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td></td>
<td></td>
<td>You will learn the essential skills to configure Cisco devices as well as test and troubleshoot networks. Your studies will also focus on routing within the &quot;cloud&quot; and voice-over-internet-protocol (VOIP). You will practice some fundamental IP-Routing commands and VOIP skills in a lab environment. The course builds on knowledge and skills you developed in Networking Essentials 1. Note: Upon completion of post course learning activities, you will be eligible to receive a Cisco Certificate of Completion.</td>
</tr>
<tr>
<td>TELE 117</td>
<td>Legacy Telephony</td>
<td>2.0</td>
<td>30.0</td>
<td>ELTR 149</td>
<td></td>
<td></td>
<td>You will describe the telephone handset and its cabling. You will study signal characteristics and subscriber loops. Your studies will focus on cable characteristics while transmitting voice and line frequencies as well as cable types used as a transmission medium, frequency response &amp; noise tests. You will practice your troubleshooting skills in a lab setting repairing faulty telephone circuits.</td>
</tr>
<tr>
<td>TERR 100</td>
<td>Engineering Geology</td>
<td>5.0</td>
<td>75.0</td>
<td></td>
<td>TERR 121</td>
<td></td>
<td>You will be provided with an introduction to physical geology and geomorphology. You will study the origins and classification of rocks and minerals, the geomorphological processes of erosion, water, and wind, and the landforms created by these processes. There will be an emphasis on Saskatchewan’s glaciated terrain. Labs will provide you opportunities to display spatial data and create map layouts using current GIS software, as well as an overview on map reading.</td>
</tr>
<tr>
<td>TERR 101</td>
<td>Engineering Geology</td>
<td>3.0</td>
<td>45.0</td>
<td></td>
<td>TERR 102</td>
<td>TERR 121</td>
<td>This course provides you an introduction to physical geology beginning with the study of the origin, composition and characteristics of the major minerals and rock classifications. You will also study geologic processes and the landforms and geologic structures created by these processes. Saskatchewan’s glaciated terrain will be emphasized.</td>
</tr>
<tr>
<td>TERR 102</td>
<td>Engineering Geology Laboratory</td>
<td>2.0</td>
<td>30.0</td>
<td>TERR 101</td>
<td></td>
<td>TERR 121</td>
<td>You will learn fundamental mapping concepts and how maps are used in Canada. You will learn about map reference systems and how they are used to describe location as points and areas. You will be introduced to digital mapping and Geographic Information Systems (GIS). You will also learn to access online GIS based interactive mapping sites and how to access digital data for use within GIS software. Emphasis will be placed on working with topographic maps in hardcopy and digital format related to Saskatchewan’s glaciated terrain.</td>
</tr>
<tr>
<td>TERR 103</td>
<td>Terrain Evaluation</td>
<td>5.0</td>
<td>75.0</td>
<td></td>
<td></td>
<td></td>
<td>The course provides an introduction to physical geology beginning with the study of the origin, composition and characteristics of the major minerals and rock classifications. You will also study geologic processes and the landforms and geologic structures created by these processes. This class will provide you with an opportunity to study map reading and air photo interpretation.</td>
</tr>
<tr>
<td>THER 100</td>
<td>Heat Treatment Processes</td>
<td>1.0</td>
<td>15.0</td>
<td></td>
<td></td>
<td></td>
<td>You will perform various heat treatment processes and hardness testing procedures.</td>
</tr>
</tbody>
</table>

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# Course Descriptions

**THER 180 Basic Thermodynamics**  
Credit Units: 5.0  Course Hours: 77.0  
Prerequisite(s): FMEC 288, MATH 182  
You will study the fundamental properties and energies associated with matter; primarily liquids, gases and vapours. The principles of mass and energy conservation will be used to define and examine the relationships between heat, work and other forms of energy. You will develop analytical competency in simplified thermodynamics processes and devices such as the piston-cylinder, heat engines, nozzles, turbines, compressors, etc. You will apply the concept of efficiency and its consequences explored. The impact of thermodynamic processes (energy transfer) on physical systems will also be assessed through an examination of resulting changes in pressure, temperature, volume, force and/or stress.

**THER 181 Applied Thermodynamics**  
Credit Units: 5.0  Course Hours: 77.0  
Prerequisite(s): THER 180, MATH 182, CALC 181  
You will apply thermodynamic theories of cycles/systems. Your studies will include examining power producing cycles (engines), refrigeration systems and industrial compressors. You will develop analytical techniques for unsteady and compressible/sonic flow systems. You will apply the principle modes of heat transfer (conduction, convection and radiation) and you will determine thermal resistances and heat transfer coefficients.

**THER 182 Thermodynamics 1**  
Credit Units: 2.0  Course Hours: 30.0  
Equivalent Course(s): PHYS 224  
You will receive an introduction to the field of thermodynamics. You will learn the quantities, units and principles involved in elementary thermodynamics.

**THER 183 Applied Mechanics 1**  
Credit Units: 2.0  Course Hours: 32.0  
Equivalent Course(s): MECA 121  
You will receive an introduction to the field of mechanics. You will learn the quantities, units and principles involved in statics and dynamics.

**THER 185 Thermodynamics (Fourth Class)**  
Credit Units: 2.0  Course Hours: 30.0  
You will receive an introduction to the field of thermodynamics and chemistry. You will learn the quantities, units and principles involved in elementary thermodynamics and chemistry.

**THER 280 Energy Conversion Systems**  
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): CALC 181, THER 181  
Equivalent Course(s): THER 284  
You will study conventional energy conversion systems. These include steam power plant cycles, gas turbines and refrigeration systems. You will also study the design of the basic components of the plants and some basics of alternative energy systems (such as solar, wind, tidal and geothermal power).

**THER 281 Thermodynamics (Third Class)**  
Credit Units: 3.0  Course Hours: 45.0  
Prerequisite(s): THER 185  
Your studies will focus on the theory and calculations related to boiler operation and efficiency. The course content includes calculations using steam tables, gas laws, equivalent evaporation, factor of evaporation, mixtures and thermal expansion.

**THER 282 Thermodynamics (Second Class)**  
Credit Units: 4.0  Course Hours: 60.0  
Prerequisite(s): THER 281  
You will study advanced calculations that deal with gas laws, specific heats, gas expansion and compression, properties of steam, dryness fraction, calorimeters, internal energy, entropy, thermal efficiency, heat engines, temperature-entropy diagrams as well as thermodynamic cycles.

**THER 283 Thermodynamics**  
Credit Units: 4.0  Course Hours: 64.0  
You will study the basic laws of thermodynamics as applied to energy conversion devices and the fundamentals of heat transfer. You will apply these principles to mechanical equipment (such as internal combustion engines, compressors, steam plants, refrigeration systems and heat exchangers). Performing experiments in the lab will provide you with hands-on experience. You will gain a working knowledge of the broad subject areas of thermodynamics.

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**THER 284 Energy Conversion Systems**
Credit Units: 5.0   Course Hours: 80.0
Prerequisite(s):   CALC 181, THER 181
Equivalent Course(s):   THER 280
You will study energy system engineering and explore how energy is employed to achieve beneficial functions in industry, transportation and in the home. You will evaluate thermal/fluid systems by studying principles of thermodynamics, fluid dynamics and heat transfer. Your studies will focus on design principles, industrial standards and governing agencies as they pertain to conventional and non conventional energy conversion, conservation and storage.

**THRC 182 Foundations of Therapeutic Recreation**
Credit Units: 4.0   Course Hours: 60.0
Equivalent Course(s):   THRC 182CE
You will study the basic concepts necessary for formulating a philosophical and theoretical foundation in therapeutic recreation. You will explore the definitions, terms and concepts used in the field, the philosophy behind the profession, the history and development of the profession and current service delivery models.

**THRC 183 Physical and Cognitive Disabilities in Therapeutic Recreation Practice**
Credit Units: 4.0   Course Hours: 60.0
Equivalent Course(s):   THRC 183CE
You will study the etiology, symptoms and characteristics of common physical and cognitive disabilities and their impact on individuals. You will be introduced to the current practices of therapeutic recreation when supporting individuals with physical and cognitive disorders.

**THRC 184 Therapeutic Recreation Process**
Credit Units: 4.0   Course Hours: 60.0
Prerequisite(s):   THRC 182
Equivalent Course(s):   THRC 183CE
You will study the principles and procedures of the therapeutic recreation process. You will examine the various responsibilities that the therapeutic recreation professional has in providing accountable, client-based service. You will learn client assessment, individual and group program planning. You will examine activity analysis, adaptation, protocols, documentation and evaluation in terms of their importance in developing therapeutic recreation programs.

**THRC 187 Introduction to Therapeutic Recreation Profession**
Credit Units: 3.0   Course Hours: 45.0
Equivalent Course(s):   THRC 187CE
You will develop an understanding of the diversity of the field of therapeutic recreation. You will focus on understanding the agency, the needs of the client population and the role of therapeutic recreation in supporting individuals with disability, illness, and/or chronic illness. You will learn the specific skills needed to work in this field.

**THRC 188 Research and Evaluation in Therapeutic Recreation**
Credit Units: 3.0   Course Hours: 45.0
Equivalent Course(s):   THRC 188CE
You will examine the research process, types of research, data collection, basic statistical analysis and outcome and efficacy studies. You will explore the needs and issues specific to conducting research related to therapeutic recreation.

**THRC 189 Therapeutic Recreation for Children and Youth**
Credit Units: 3.0   Course Hours: 45.0
Equivalent Course(s):   THRC 186, THRC 189CE
You will study the etiology, symptoms and characteristics of a number of common childhood and youth related disabilities, illnesses and/or health conditions. You will be introduced to the current practices and the role of therapeutic recreation when working with children and youth in a variety of settings.

**THRC 190 Health Promotion in Therapeutic Recreation**
Credit Units: 4.0   Course Hours: 60.0
Equivalent Course(s):   THRC 190CE
You will be introduced to the core concepts of health promotion discussing the determinants of health, and the relationship between health and leisure. You will explore the Health Promotion/Health Protection model as it relates to therapeutic recreation. You will explore strategies and resources to encourage and promote involvement in physical activity and healthy eating for all people. You will explore skills for managing risk, stress and the life/work balance and will describe the role of therapeutic recreation in health promotion and disease prevention.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Equivalent Course(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>THRC 281</td>
<td>Therapeutic Recreation Assessment</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td>THRC 281CE</td>
<td>You will develop an in-depth understanding of the process and components of assessment in therapeutic recreation. You will review, analyze and apply a variety of therapeutic recreation assessment tools and techniques.</td>
</tr>
<tr>
<td>THRC 283</td>
<td>Mental Health, Addictions and Therapeutic Recreation</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td>THRC 283CE</td>
<td>You will be introduced to current practices of therapeutic recreation when working with individuals with mental illness, addiction and social deviancy. You will study the etiology, symptoms and impact considerations of these populations.</td>
</tr>
<tr>
<td>THRC 284</td>
<td>Therapeutic Recreation and Leisure Education</td>
<td>4.0</td>
<td>60.0</td>
<td>THRC 182</td>
<td>THRC 284CE</td>
<td>You will explore the role of leisure education in assisting individuals in leading a fulfilling leisure lifestyle. You will examine philosophical consideration, models and facilitation techniques common to leisure education. You will have the opportunity to apply this theory by developing leisure education programs.</td>
</tr>
<tr>
<td>THRC 285</td>
<td>Therapeutic Recreation and Inclusive Leisure Services</td>
<td>4.0</td>
<td>60.0</td>
<td></td>
<td>THRC 285CE</td>
<td>You will develop an understanding of the importance of inclusive leisure services. You will learn strategies to help facilitate individual participation, meaningful recreation and leisure opportunities.</td>
</tr>
<tr>
<td>THRC 286</td>
<td>Therapeutic Recreation Program Management</td>
<td>4.0</td>
<td>60.0</td>
<td>THRC 184</td>
<td>THRC 286CE</td>
<td>You will learn the principles of program management/leadership and how they relate to delivering therapeutic recreation services. You will study organization and planning, department policies and procedures, human resource planning and volunteer management. Course content will include decision making, problem solving and conflict management as they relate to therapeutic recreation.</td>
</tr>
<tr>
<td>THRC 289</td>
<td>Therapeutic Recreation and Aging</td>
<td>4.0</td>
<td>60.0</td>
<td>HUMD 188</td>
<td>REC 288, THRC 185, THRC 298CE</td>
<td>You will explore the relationship between leisure and aging and how to apply current therapeutic recreation practices to support older adults in a variety of settings. You will examine the myths and realities of aging and the impact of retirement, our health care system, and service delivery on older adults.</td>
</tr>
<tr>
<td>THRC 290</td>
<td>Issues and Trends in Therapeutic Recreation</td>
<td>2.0</td>
<td>30.0</td>
<td>PRAC 177</td>
<td>THRC 290CE</td>
<td>You will examine the trends and issues that influence the provision of therapeutic recreation services. You will study cultural competence and be introduced to Aboriginal culture in therapeutic recreation. You will examine the role of spirituality within therapeutic recreation.</td>
</tr>
<tr>
<td>THRC 291</td>
<td>Facilitation Techniques in Therapeutic Recreation</td>
<td>4.0</td>
<td>60.0</td>
<td>THRC 184</td>
<td>THRC 291CE</td>
<td>You will examine a number of techniques and activity-based therapies that therapeutic recreation professionals may employ. You will explore your role in utilizing these techniques and interventions as part of a comprehensive therapeutic recreation program.</td>
</tr>
</tbody>
</table>

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Course Descriptions

THRC 292 Therapeutic Recreation Integration Seminar 1
Credit Units: 1.0 Course Hours: 15.0
Prerequisite(s): EMPL 180*, HUMR 186*, THRC 182*, THRC 183*, THRC 184*, THRC 285*, THRC 187*
Equivalent Course(s): THRC 292CE
You will discuss practicum placement experiences to identify professional practice as it applies to therapeutic recreation services. You will have an opportunity to discuss the application of theory and knowledge on practice. You will begin to develop a framework for a professional portfolio outlining career goals as well as the knowledge and skills you have developed.

THRC 293 Therapeutic Recreation Integration Seminar 2
Credit Units: 1.0 Course Hours: 15.0
Prerequisite(s): APHY 189*, HUMD 188*, MTER 180*, PRAC 177, THRC 188*, THRC 281*, THRC 284*, THRC 289*
Equivalent Course(s): THRC 293CE
You will discuss practicum placement experiences to begin identifying career opportunities in therapeutic recreation. You will have an opportunity to reflect on professional practice and discuss the application of theory and knowledge on practice. You will develop a professional portfolio outlining your career goals. Your portfolio will prepare you to showcase your abilities and secure a practicum placement of your choice.

THRC 294 Therapeutic Recreation Integration Seminar 3
Credit Units: 1.0 Course Hours: 15.0
Prerequisite(s): PRAC 280, SOCI 185*, THRC 189*, THRC 283*, THRC 286*, THRC 290*, THRC 291*
Equivalent Course(s): THRC 294CE
You will reflect on practicum placement experiences to identify professional practice as it applies to therapeutic recreation services. You will complete a portfolio to integrate personal career goals with the practicum learning outcomes. You will develop a professional resume and cover letter and apply for a practicum placement with an agency. You will complete an interview upon selection by an agency.

TOOL 101 Machine Tool Operation
Credit Units: 3.0 Course Hours: 45.0
You will learn the basic theory and operation of a lathe.

TOOL 102 Hand Cutting, Threading Tools and Fasteners
Credit Units: 3.0 Course Hours: 45.0
You will learn the theoretical and practical application of hand cutting tools and threading applications.

TOOL 103 Assembly and Measuring Tools
Credit Units: 3.0 Course Hours: 45.0
You will experience the theoretical and practical application of assembly tools and precision measuring tools.

TOOL 104 Power Tools
Credit Units: 3.0 Course Hours: 45.0
You will learn theory and practical operation of grinders, drills and threading machines.

TOOL 108 Basic Tools and Materials
Credit Units: 6.0 Course Hours: 95.0
You will learn to use most of the hand and power tools utilized in the plumbing and pipefitting trades. You will be introduced to all types of pipes, tubing and fittings. You will learn to identify and join the different kinds of pipe used in the plumbing and pipefitting trades and learn to join the different kinds of pipe. Another component of the course is an introduction to natural and LP gas.

TOOL 113 Shop Tools, Procedures and Safety
Credit Units: 4.0 Course Hours: 60.0
Equivalent Course(s): TOOL 170
You will explore the occupations safe work practices and procedures required in these trades.

TOOL 114 Hand Threading Tools, Threads and Fasteners
Credit Units: 3.0 Course Hours: 45.0
You will learn the theoretical and practical application of hand threading tools, threads and fasteners.

TOOL 115 Assembly and Measuring Tools
Credit Units: 3.0 Course Hours: 45.0
You will experience the theoretical and practical application of assembly and precision measuring tools.

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### TOOL 116 Power Tools
Credit Units: 4.0  Course Hours: 60.0
You will learn theory and practical operation of grinders, drills and threading machines.

### TOOL 118 Basic Tools and Materials Theory
Credit Units: 4.0  Course Hours: 60.0
You will learn to use most of the hand and power tools utilized in the plumbing and pipefitting trades. You will develop skills in the safe lifting and moving of materials and equipment used in the shop. You will learn rigging theory and basic rigging techniques used in the industry. You will discuss the types of cranes, crane safety and signaling. You will also study the types of slings, sling configurations and knots utilized for securing loads. You will discuss soldering and brazing material types and the techniques used for joining similar and dissimilar metals.

### TOOL 119 Basic Tools and Materials Shop
Credit Units: 3.0  Course Hours: 45.0
You will use most of the hand and power tools utilized in the plumbing and pipefitting trades. You will practice safe lifting and moving techniques for materials and equipment used in the shop. You will apply basic rigging techniques and crane signals for hoisting pipe bundles, valves and other trade related materials and equipment. You will practice soldering and brazing with similar and dissimilar metals.

### TOOL 149 Tools and Fasteners
Credit Units: 3.0  Course Hours: 45.0
You will learn how to use hand and power tools common to the electrician trade. You will learn how to safely operate and maintain powder actuated tools. You will learn about common fasteners used for wood, metal, masonry, and other materials.

### TOOL 150 Shop Tools, Procedures and Safety
Credit Units: 5.0  Course Hours: 70.0
You will explore the occupations safe work practices and procedures required in these trades.

### TOOL 151 Tools
Credit Units: 2.0  Course Hours: 30.0
You will learn the theoretical and practical application of hand and power tools.

### TOOL 154 Basic Tools Theory
Credit Units: 1.0  Course Hours: 15.0
You will learn to identify, use and maintain hand tools and shop equipment. You will learn to read and use various measuring instruments and the proper method of sawing, filing, drilling, thread cutting, tool sharpening, and layout procedures. You will also learn to identify and use threaded fasteners and fittings, chemical fasteners and sealants. The course content includes safety rules, basic firefighting techniques and Occupational Health and Safety (OHS) and Workplace Hazardous Materials Information Systems (WHMIS) regulations.

### TOOL 155 Basic Tools Shop
Credit Units: 2.0  Course Hours: 30.0
You will use and maintain hand tools and shop equipment. You will use various measuring instruments and perform sawing, filing, drilling, thread cutting, tool sharpening and layout procedures. You will use threaded fasteners and fittings, chemical fasteners and sealants. You will demonstrate safety rules and Occupational Health and Safety (OHS) and Workplace Hazardous Materials Information Systems (WHMIS) regulations.

### TOOL 156 Lay-Out and Hand Cutting Tools
Credit Units: 2.0  Course Hours: 30.0
You will learn the theoretical and practical applications of lay-out tools and hand cutting tools.

### TOOL 188 Basic Hand Tools
Credit Units: 1.0  Course Hours: 20.0
You will study theory and practice of bench work operations applicable to the trade.

### TOUR 280 Hospitality and Tourism
Credit Units: 2.0  Course Hours: 24.0
You will learn how the various sectors relate to and impact the tourism industry.

### TOUR 287 Community Tourism Management
Credit Units: 3.0  Course Hours: 45.0
This course will introduce you to the Community Tourism Planning model and the needs of the community.
TRAN 181 Transportation of Dangerous Goods (TDG)
Train the Trainer
Credit Units: 1.0  Course Hours: 16.0
Prerequisite(s):  TRAN 1800
Equivalent Course(s):  TRAN 181CE
You will prepare to train workers on the basic requirements for road transport under the Transportation of Dangerous Goods (TDG) act.

TRAN 222 Transportation Engineering
Credit Units: 5.0  Course Hours: 70.0
Prerequisite(s):  CAMP 225
Using CAD, you will design a section of highway and produce a plan showing centerline plan and profile and mass haul diagram. Through the design process, you will study sight lines, drainage control, environmental precautions, spiral curves and superelevation, cost considerations and the interpretation and proper presentation of highway drawings.

TRAN 223 Transportation Engineering
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s):  TRAN 222
You will study the basis for the highway design standards including curve lengths and stopping sight distances. You will also study traffic analysis including traffic volume counts, highway capacity analysis and intersection capacity and control.

TRFS 180 Transfusion Science 1
Credit Units: 3.0  Course Hours: 52.0
Prerequisite(s):  PROC 180, IMMU 183
You will acquire the theory and practice needed to perform basic techniques to detect antigen-antibody reactions. You will also learn how to perform ABO forward and reverse grouping, Rh grouping and the antiglobulin test (direct and indirect).

TRFS 181 Transfusion Science 2
Credit Units: 4.0  Course Hours: 55.0
Prerequisite(s):  TRFS 180
You will acquire the theory and practice needed to detect and identify antigens and antibodies and other blood group systems. You will learn how to help diagnose, treat and prevent hemolytic disease of the fetus and newborn (HDFN). Diagnosing and treating immune hemolytic anemias will also be covered.

TRFS 182 Transfusion Science 3
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  TRFS 181
Equivalent Course(s):  TRFS 182CE
You will acquire the theory and practice needed to provide and issue compatible products for transfusions and investigating adverse effects of transfusions.

TRLR 100 Truck and Trailer Systems Theory
Credit Units: 1.0  Course Hours: 15.0
You will discuss various trailer frame and suspension designs. Saskatchewan Government Insurance inspections procedures will also be discussed.

TRLR 101 Truck and Trailer Systems Shop
Credit Units: 2.0  Course Hours: 30.0
You will evaluate various trailer frame and suspension designs. Saskatchewan Government Insurance inspection procedures will be performed and defects repaired.

TRLR 102 HVAC and Auxiliary Power Systems Theory
Credit Units: 1.0  Course Hours: 15.0
You will discuss various auxiliary heaters and power generation systems. You will also study trailer heating, ventilation and air conditioning systems.

TRLR 103 HVAC and Auxiliary Power Systems Shop
Credit Units: 2.0  Course Hours: 30.0
You will analyze and repair auxiliary heating and power generation systems. Trailer heating, ventilation and air conditioning systems will also be evaluated.

TRNM 109 Final Drive Assemblies
Credit Units: 3.0  Course Hours: 45.0
The course focuses on the operation, diagnosis and repair of final drive assemblies.

TRNM 110 Clutches and Transmissions Part 1
Credit Units: 3.0  Course Hours: 45.0
You will examine the operation, diagnosis and repair of clutch assemblies. The course also combines the removal and replacement of manual transmissions.
Course Descriptions

TRNM 111 Clutches and Transmissions Part 2
Credit Units: 3.0  Course Hours: 45.0
Your studies will focus on the maintenance procedures for transmissions, transaxles, transfer case and differentials. You will develop skills in removal and installation of automatic transmissions.

TRNM 190 Primary Driveline Components, Belts and Chains
Credit Units: 2.0  Course Hours: 30.0
You will learn about basic driveline components and the importance of proper alignment and design. You will perform belt and chain adjustments, explore various bearing types and perform driveline inspections. You will explore agricultural equipment steering axle geometry.

TRNM 191 Clutch Drive Systems
Credit Units: 2.0  Course Hours: 30.0
You will learn about various clutch drive systems used in the agricultural equipment industry. You will describe various types of clutch systems and applications for clutch components. You will safely separate a tractor engine from the transmission and inspect the clutch drive system.

TRNM 192 Differentials and Final Drives
Credit Units: 4.0  Course Hours: 60.0
You will learn about the principles of gear reduction systems and differentials. You will study hydraulic braking systems used on today’s agricultural equipment. Your focus will be on various gear boxes, axles, and final drives.

VDEO 100 Electronic Field Production Hardware
Credit Units: 1.0  Course Hours: 16.0
Your studies will focus on the fundamental technical concepts of video production. Cameras and recording devices will be emphasized and you will study their components and care.

VDEO 101 Electronic Field Production Equipment
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s): AUDI 103, MULT 131, PHOT 100
Your studies will expose you to production techniques and skills appropriate to single camera Electronic Field Production (EFP) and Electronic News Gathering (ENG).

VDEO 102 Videography
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  VDEO 101*, DSGN 105*
You will learn to compose shots and sequences with meaning and energy. You will develop the skills and techniques required to effectively communicate a message to the viewer.

VDEO 103 Introduction to Non-Linear Editing
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  COMP 102, VDEO 102*
You will learn how to use a non-linear editing system. Your studies will familiarize you with the interface and help you attain skills in importing, layout, mixing audio, editing video and applying pre-set effects and filters.

VDEO 104 Post-Production 1
Credit Units: 3.0  Course Hours: 38.0
Prerequisite(s):  COMP 102
You will receive an introduction to post-production editing. You will study linear and non-linear post-production editing systems and learn basic techniques.

VDEO 200 Effective Imagery
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  AV 200, VDEO 102
You will practice a variety of shooting techniques using the camera to define, enhance and control imagery. You will explore the limits and range of the video camera.

VDEO 201 Editing Support Equipment
Credit Units: 2.0  Course Hours: 32.0
Prerequisite(s):  VDEO 103
Your studies will cover supplementary equipment used in an editing system. You will learn about formats and standards and audio and video monitoring equipment.

VDEO 202 Video Titling and Graphics
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  DSGN 105, VDEO 103
You will learn methods of preparing, selecting, and presenting titles in the context of a video production. Your studies will help you develop the skills needed to ensure graphics have the appropriate look and format.

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### VDEO 203 Post-Production
- **Credit Units:** 3.0
- **Course Hours:** 45.0
- **Prerequisite(s):** DSGN 105, VDEO 103
You will enhance presentations with increasingly complex editing techniques. You will study the relationship and the interaction among sequence, time and motion.

### VDEO 204 Dramatic Production
- **Credit Units:** 3.0
- **Course Hours:** 45.0
- **Prerequisite(s):** VDEO 200, VDEO 203, AUDI 200
You will develop a short dramatic production idea from treatment through to finished presentation.

### VDEO 205 Corporate Video Production
- **Credit Units:** 3.0
- **Course Hours:** 45.0
- **Prerequisite(s):** VDEO 200, VDEO 203, AUDI 200
Building on the skills you have acquired throughout this program, you will develop and present a finished corporate-style video production.

### VDEO 206 Documentary Production
- **Credit Units:** 3.0
- **Course Hours:** 45.0
- **Prerequisite(s):** VDEO 200, VDEO 203, AUDI 200
You will develop and produce a documentary based on your own ideas and research.

### VDEO 207 Multi-Camera Video Production
- **Credit Units:** 3.0
- **Course Hours:** 45.0
- **Prerequisite(s):** COMP 102, VDEO 200
You will learn systems and use techniques for producing live multiple-camera events. You will learn to determine remote production requirements. You will participate in the system set up and perform various roles in a production crew.

### VDEO 208 Introduction to Streaming Media
- **Credit Units:** 2.0
- **Course Hours:** 30.0
- **Prerequisite(s):** COMP 102
You will learn the fundamental concepts required to stream audio and video on the internet. You will discuss the technologies available for streaming and determine appropriate systems for the stream required.

### VTR 100 Animal Diseases 1
- **Credit Units:** 2.0
- **Course Hours:** 30.0
- **Prerequisite(s):** APHY 101, APHY 102, CHEM 101, MATH 280, APHY 280*, APHY 281*, MICR 186*
Equivalent Course(s): VETR 279
Your studies will cover general principles of disease in both large and small animals. You will learn about temperature regulation, dehydration, shock, heart failure and respiratory and gastrointestinal disease.

### VTR 182 Veterinary Nursing Skills 1
- **Credit Units:** 2.0
- **Course Hours:** 30.0
- **Prerequisite(s):** APHY 101*, APHY 102*, VTR 187*, VTR 188*
You will practice common nursing skills such as handling syringes and biologicals, safe animal restraint, various injection techniques, intubation, bandaging and physical assessment. These skills are utilized in first and second year clinical rotations.

### VTR 183 Clinical Rotations 1
- **Credit Units:** 4.0
- **Course Hours:** 60.0
- **Prerequisite(s):** VTR 182*, VTR 186*, VTR 187*, VTR 188*
You will be exposed to the operation of veterinary practices through assigned rotations at local veterinary clinics. You will apply competencies acquired during your education in the Veterinary Technology program.

### VTR 184 Veterinary Tours 1
- **Credit Units:** 1.0
- **Course Hours:** 15.0
- **Prerequisite(s):** VTR 188*
You will tour various animal production and research facilities. You will report on variations in housing, health management, feeding and breeding options.

### VTR 186 Human Animal Bond, Ethics and the Law
- **Credit Units:** 2.0
- **Course Hours:** 30.0
- **Corequisite(s):** VTR 188
You will be introduced to aspects of the human animal bond and how it is influenced by culture. You will learn about regulation and investigate ethics as it pertains to the veterinary profession.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VETR 187</td>
<td>Animal Behaviour</td>
<td>2.0</td>
<td>30.0</td>
<td>VETR 188</td>
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<tr>
<td>VETR 188</td>
<td>Veterinary Medical Terminology</td>
<td>1.0</td>
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<tr>
<td>VETR 189</td>
<td>Veterinary Client Relations</td>
<td>1.0</td>
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<td>VETR 190</td>
<td>Veterinary Nursing Skills 2</td>
<td>2.0</td>
<td>30.0</td>
<td>APHY 101, APHY 102, MATH 280, VETR 182, APHY 280*, APHY 281*, ANIM 282*</td>
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<td>VETR 191</td>
<td>Large Animal Medicine 1</td>
<td>3.0</td>
<td>45.0</td>
<td>APHY 281, ANIM 282, MICR 186, VETR 100, VETR 184</td>
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<tr>
<td>VETR 192</td>
<td>Veterinary Office Procedures</td>
<td>2.0</td>
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<td>VETR 188</td>
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<tr>
<td>VETR 193</td>
<td>Exotics</td>
<td>1.0</td>
<td>15.0</td>
<td>ANIM 282, APHY 281</td>
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<td>VETR 200</td>
<td>Animal Diseases 2</td>
<td>2.0</td>
<td>30.0</td>
<td>APHY 281, GENE 182, MICR 186, VETR 100</td>
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<tr>
<td>VETR 282</td>
<td>Large Animal Medicine 2</td>
<td>2.0</td>
<td>30.0</td>
<td>ANES 279, ANIM 282, NUTR 200, PHAR 203, PRST 280, VETR 191, VETR 294*</td>
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<tr>
<td>VETR 286</td>
<td>Veterinary Technology Dentistry</td>
<td>2.0</td>
<td>30.0</td>
<td>RDGR 183</td>
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</tbody>
</table>

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**Course Descriptions**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
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<tbody>
<tr>
<td>VETR 287</td>
<td>Clinical Rotations 2</td>
<td>4.0</td>
<td>60.0</td>
<td>VETR 182, VETR 183, VETR 187, VETR 188, MATH 280, RDGR 183*, VETR 190*</td>
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<td>You will continue to build onto your skills and knowledge developed in first semester by applying new competencies acquired during your education and training in second semester of the Veterinary Technology program.</td>
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<tr>
<td>VETR 288</td>
<td>Veterinary Tours 2</td>
<td>1.0</td>
<td>15.0</td>
<td>VETR 184</td>
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<td>Building on the skills you developed in Veterinary Tours 1 (VETR 184), you will participate in tours associated with the animal industry. You will attend a seminar on employment opportunities in non-traditional employment fields.</td>
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<tr>
<td>VETR 289</td>
<td>Clinical Surgical Nursing</td>
<td>3.0</td>
<td>40.0</td>
<td>PRAC 284</td>
<td>ANES 282, CLIN 238, CLIN 239</td>
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<tr>
<td></td>
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<td></td>
<td>You will work in large and small animal operating rooms according to “human hospital standards”. You will perform standard dental prophylaxis on a small animal patient.</td>
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<tr>
<td>VETR 292</td>
<td>Surgical Nursing Skills</td>
<td>3.0</td>
<td>45.0</td>
<td>MICR 186, VETR 190, VETR 287</td>
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<td>You will learn the skills required to be both a circulating or scrub nurse in the operating room. There is emphasis on surgical asepsis, patient management, and equipment and instrument management.</td>
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<tr>
<td>VETR 293</td>
<td>Veterinary Nursing Skills 3</td>
<td>2.0</td>
<td>30.0</td>
<td>APHY 281, VETR 190, VETR 191</td>
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<td>You will be introduced to common nursing skills, including obtaining an electrocardiogram and capnogram, measuring blood pressure and oxygen saturation, performing cardiopulmonary resuscitation (CPR) and needle aspirates. These skills will be utilized during second year clinical rotations and senior practicum.</td>
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<td>VETR 294</td>
<td>Veterinary Nursing Skills 4</td>
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<td>15.0</td>
<td>VETR 286, VETR 292, VETR 293</td>
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<td>You will review and refresh your skills in common nursing procedures previously learned. These skills are frequently used in veterinary clinics and will be utilized during your second year clinical rotations and senior practicum.</td>
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<tr>
<td>VETR 295</td>
<td>Small Animal Medicine</td>
<td>3.0</td>
<td>40.0</td>
<td>ANES 279, PATH 201, PATH 202, PHAR 203, PRST 280, VETR 200, VETR 294*</td>
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<td>Corequisite(s): ANES 281, PRAC 284, RDGR 282, VETR 282</td>
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<td>You will learn how to handle, restrain and perform specified procedures on small companion animals. Safety requirements involved in dealing with small animals will be emphasized.</td>
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<tr>
<td>WALL 100</td>
<td>Walls</td>
<td>4.0</td>
<td>60.0</td>
<td>MSON 100</td>
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<td>You will gain hands-on practical experience in the design, layout and construction of various wall systems according to the building code requirements.</td>
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<tr>
<td>WELD 102</td>
<td>Welding Operations</td>
<td>2.0</td>
<td>25.0</td>
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<td>You will operate various types of welding equipment to perform welding operations including brazing, joining materials and metal cutting.</td>
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<tr>
<td>WELD 103</td>
<td>Oxy-Acetylene Welding</td>
<td>6.0</td>
<td>85.0</td>
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<td>You will learn how to safely operate and maintain oxy-acetylene equipment as used in the welding trade. The course covers the types of flames and their chemistry, the selection of filler metal and a comparison of fusion and braze welding. You will also develop practical skills in fusion welding of 14 gauge steel in the flat and vertical positions, braze welding on mild steel in the flat position and braze welding on cast iron in the vertical position.</td>
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</tr>
</tbody>
</table>
## Course Descriptions

### WELD 104 Cutting Processes

Credit Units: 4.0  Course Hours: 60.0

You will acquire skill in using freehand and guided methods for cutting mild steel. The freehand method is used to make straight cuts in 14 gauge and straight cuts, bevel cuts and pierce holes in the plate. The guided method is used to do straight cuts, bevel cuts, and cut circles from plate. You will also be introduced to plasma arc cutting.

### WELD 105 Gas Metal Arc Welding

Credit Units: 8.0  Course Hours: 120.0

You will learn the procedures for setting up and adjusting welding equipment for Gas Metal Arc Welding (GMAW) of steel and aluminum while addressing GMAW safety concerns. You will learn to select the correct mode of metal transfer and identify and choose the size and type of filler wire and the type of shielding gas to be used. You will learn how to make fillet welds in the flat, vertical and horizontal positions and full strength groove welds in the flat and vertical positions on various metal thicknesses. You will also weld using flux-cored electrode wire (FCAW) and metal-cored electrode wire (MCAW).

### WELD 106 Gas Tungsten Arc Welding

Credit Units: 2.0  Course Hours: 30.0

You will learn how to set-up and adjust Gas Tungsten Arc Welding (GTAW) welding equipment required for welding mild steel and aluminum. You will examine the types of electrodes, shielding gases and electrical current types used in the GTAW welding. You will develop skills in welding mild steel, stainless steel and aluminum in the flat position.

### WELD 107 Shielded Metal Arc Welding 1

Credit Units: 8.0  Course Hours: 120.0

You will be introduced to the Shielded Metal Arc Welding (SMAW) process and study the types of power sources, electrical characteristics of welding circuits, and mild steel and low alloy electrodes. You will develop your skills in welding beads in the flat, vertical and horizontal positions and producing fillet welds in the horizontal position.

### WELD 108 Shielded Metal Arc Welding 2

Credit Units: 11.0  Course Hours: 161.0

You will continue developing skill in using the SMAW process. The course content includes vertical and overhead fillets, arc air gouging and other common applications of the SMAW process.

### WELD 109 Shielded Metal Arc Welding 3

Credit Units: 8.0  Course Hours: 120.0

You will further develop your skills in the SMAW process for welding in the flat, vertical and horizontal positions. You will practice full strength, open root, and groove welds in the flat, vertical and horizontal positions. Your groove welds will be subjected to bend testing and evaluated against a standard similar to that used in journeyperson or ASME code qualification tests.

### WELD 114 Cutting Processes

Credit Units: 1.0  Course Hours: 18.0

You will acquire skill in using freehand and guided methods for cutting mild steel. The freehand method is used to make straight cuts in 14 gauge and to make straight cuts, bevelled cuts and holes in plate. The guided method is used to do straight cuts, bevelled cuts and cut circles from plate. You will also be introduced to plasma arc and air carbon arc cutting.

### WELD 115 Gas Metal Arc Welding

Credit Units: 11.0  Course Hours: 162.0

You will be introduced to the gas metal arc welding process that is most commonly called MIG welding. The course content includes setting and adjusting welding equipment for MIG welding of steel and/or aluminum, and selecting the mode of metal transfer, the size and type of filler wire and the type of shielding gas to be used. You will learn how to make MIG fillet welds in the flat, vertical, horizontal and overhead positions.

### WELD 118 Welding

Credit Units: 7.0  Course Hours: 100.0

Prerequisite(s): SFTY 126*

You will learn how to fusion weld light gauge metal used in the auto body industry using metal inert gas (MIG) welding procedures. You will also learn how to perform resistance spot welds. You will learn to cut metals using both a cutting torch and plasma arc cutters.

### WELD 289 Welding

Credit Units: 1.0  Course Hours: 19.0

You will learn how to safely operate, assemble and maintain an oxy-fuel system while torch brazing (TB) and oxy-fuel cutting (OFC).
WELD 387 Welding for Technologists
Credit Units: 2.0  Course Hours: 30.0
Equivalent Course(s): WELD 102
You will observe and perform welding, thermal cutting and metal forming operations. You will develop an understanding of processes rather than skill. Supervised hands-on training will help you develop an understanding of Shielded Metal Arc Welding, Gas Metal Arc Welding, Flux Cored Arc Welding, Gas Tungsten Arc Welding, Oxy-Fuel Welding and Submerged Arc Welding. Your metal cutting activities will include Oxy-fuel Cutting and Plasma Arc Cutting. You will perform metal forming activities on a plate roll, press brake and structural roll.

WHMS 182 WHMIS
Credit Units: 1.0  Course Hours: 4.0
Equivalent Course(s): PART 191, WHMS 100
The course provides an introduction to the Workplace Hazardous Material Information System for identifying hazards associated with materials found in the workplace. The system helps to prevent personal injury and long-term negative health effects.

WHMS 184 Workplace Hazardous Information System (WHMIS) Train the Trainer
Credit Units: 1.0  Course Hours: 16.0
Prerequisite(s): WHMS 1800
Equivalent Course(s): WHMS 184CE
Your studies will focus on the preparation required to successfully facilitate in-house Workplace Hazardous Materials Information System (WHMIS) sessions for front line workers. You will learn about relevant legislation including requirements of worker training, controlled product classification, and required documentation and labeling. You will also develop skills to design specific workplace training sessions.

WILD 101 Ecology, Biology and Management of Saskatchewan Wildlife
Credit Units: 2.0  Course Hours: 30.0
You will examine how wildlife populations relate to their environments. You will learn the life history and biology of Saskatchewan wildlife. Students will examine at-risk species in Saskatchewan and review environmental laws governing at-risk species. You will learn wildlife management challenges, strategies and goals for Saskatchewan wildlife populations.

WILD 301 Wildlife Anatomy and Systematics
Credit Units: 4.0  Course Hours: 60.0
You will compare the internal and external anatomical features of amphibians, birds and mammals as well as describe necropsy procedures. You will learn how to identify the members of these vertebrate classes that occur in Saskatchewan.

WILD 302 History and Practice of Wildlife Management
Credit Units: 1.0  Course Hours: 15.0
You will trace the development of wildlife management in North America and examine the different management eras, concepts and practices from the past to the present. You will be introduced to the work of influential people in wildlife management over the past century.

WILD 404 Wildlife Management Field Techniques
Credit Units: 4.0  Course Hours: 60.0
Prerequisite(s): CAMP 416*
You will learn fundamental field skills in wildlife damage prevention, data and sample collection, and age/sex determination. You will also learn how to ethically capture and handle wildlife.

WILD 405 Wildlife Population Assessment and Regulation
Credit Units: 3.0  Course Hours: 45.0
You will assess wildlife populations using a variety of survey techniques that wildlife managers use to quantify the size, distribution and density of wildlife populations. You will also examine the tools managers use to regulate the sustainable harvest of wildlife and simulate the responses of wildlife populations to human manipulations.

WILD 406 Assessment of Wildlife Physiological Condition
Credit Units: 2.0  Course Hours: 30.0
You will use physiological parameters to assess the health and reproductive status of wildlife populations. You will examine the principles of wildlife nutrition and learn methods to assess the reproductive and nutritional status of wildlife.
## Course Descriptions

### WILD 407 Furbearer Management in Saskatchewan
**Credit Units:** 1.0  **Course Hours:** 15.0  
You will recognize the importance of furbearing mammals as a source of income for many Saskatchewan residents (especially in northern areas of the province). You will study furbearing mammals and examine the development of the fur industry in Canada. You will also study the biology, ecology and management of Saskatchewan furbearers.

### WILD 409 Wildlife Habitat Assessment
**Credit Units:** 3.0  **Course Hours:** 45.0  
You will study techniques to assess habitat quality to determine its capability for supporting wildlife. You will learn the fundamentals of and current guidelines for the protection of wildlife and their habitats within a variety of human resource developments.

### WILD 410 Wildlife in the Economy
**Credit Units:** 1.0  **Course Hours:** 15.0  
You will study how to integrate wildlife issues into the context of the economy. You will examine landowner attitudes towards wildlife, wildlife habitat issues as well as the realities and ethics of incorporating game birds and mammals into the commercial economy.

### WILD 411 Wildlife Mgmt Field Techniques
**Credit Units:** 4.0  **Course Hours:** 60.0  
You will demonstrate the fundamental field skills in wildlife damage prevention, data and sample collection, and age/sex determination. You will also demonstrate the ethical capture and handling of wildlife.

### WIRE 100 Electrical Wiring Practice
**Credit Units:** 2.0  **Course Hours:** 36.0  
Your studies will focus on the installation of basic industrial wiring circuits commonly found in industrial plants. You will be introduced to the Canadian Electrical Code (CEC) as it pertains to safety issues when working on or near energized electrical equipment.

### WLDR 103 Welding and Cutting
**Credit Units:** 2.0  **Course Hours:** 30.0  
Equivalent Course(s): WELD 103
You will study the basics of oxy-acetylene cutting and welding. You will learn to safely use and store material involved with these operations.

### WLDR 121 Gas Metal Arc Welding 1
**Credit Units:** 1.0  **Course Hours:** 20.0  
You will be introduced to the gas metal arc welding process. The course content includes setting and adjusting the welding equipment for welding steel and aluminum. You will also receive an introduction to flux core welding.

### WLDR 122 Gas Metal Arc Welding 2
**Credit Units:** 6.0  **Course Hours:** 90.0  
**Prerequisite(s):** WLDR 121
Building on the theory learned in WLDR 121 (Gas Metal Arc Welding 1), you will develop practical skills for welding steel and aluminum, and flux core welding.

### WLDR 123 Oxy-Welding
**Credit Units:** 5.0  **Course Hours:** 68.0  
You will learn how to safely operate and maintain oxyacetylene equipment used for welding. The course includes the types of flames and their chemistry, the selection of filler metal and a comparison of fusion welding to braze welding.

### WLDR 124 Shielded Metal Arc Welding 1
**Credit Units:** 3.0  **Course Hours:** 40.0  
You will be introduced to the shielded metal arc welding (SMAW) process. The course content includes setting and adjusting the welding equipment for welding steel and electrode selection.

### WLDR 125 Shielded Metal Arc Welding 2
**Credit Units:** 5.0  **Course Hours:** 80.0  
**Prerequisite(s):** WLDR 124
You will continue developing practical skills in using the SMAW process (including vertical fillets).

### WLDR 126 Shielded Metal Arc Welding 3
**Credit Units:** 3.0  **Course Hours:** 50.0  
**Prerequisite(s):** WLDR 125
Building on the knowledge gained in WLDR 124 (Shielded Metal Arc Welding 1) and WLDR 125 (Shielded Metal Arc Welding 2), you will continue to develop practical skills for welding in the flat, vertical and horizontal positions.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credit Units</th>
<th>Course Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLDR 127</td>
<td>Flame Cutting</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will study the basics of oxy-acetylene cutting and welding.</td>
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<tr>
<td></td>
<td>You will learn to safely use and store material involved with these operations.</td>
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</tr>
<tr>
<td>WLDR 135</td>
<td>Welding</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will identify the safe assembly, operation and maintenance of oxy-fuel cutting (OFC) and Gas Metal Arc Welding (GMAW) processes. You will also demonstrate the safe operation of oxy-fuel cutting (OFC) and Gas Metal Arc Welding (GMAW).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WLDR 137</td>
<td>Oxy Fuel, Cutting and Welding, Gas Metal Arc Welding (GMAW)</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will learn the theory and practical basic skills of Oxy fuel welding and cutting and GMAW, short circuit and spray welding.</td>
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</tr>
<tr>
<td>WLDR 138</td>
<td>Shielded Metal Arc Welding (SMAW)</td>
<td>3.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>You will learn the theory and practical basic welding skills of SMAW.</td>
<td></td>
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</tr>
<tr>
<td>WLDR 142</td>
<td>Shielded Metal Arc Welding (Theory)</td>
<td>1.0</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>You will develop the knowledge required to select, setup, operate and maintain shielded metal arc welding equipment.</td>
<td></td>
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</tr>
<tr>
<td>WLDR 143</td>
<td>Shielded Metal Arc Welding (Shop)</td>
<td>8.0</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>You will develop skill in welding light gauge steel in the flat, horizontal and vertical positions. Fillet welds on heavier material will be practiced in the horizontal, vertical and overhead positions.</td>
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</tr>
<tr>
<td>WLDR 144</td>
<td>Oxy-Fuel Processes (Theory)</td>
<td>1.0</td>
<td>12.0</td>
</tr>
<tr>
<td></td>
<td>You will develop the knowledge required to select, set up, operate and maintain oxy-fuel welding (OFW) and cutting equipment.</td>
<td></td>
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</tr>
<tr>
<td>WLDR 145</td>
<td>Oxy-Fuel Processes (Shop)</td>
<td>2.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>You will learn to set up and use oxy-fuel equipment to weld, braze and solder.</td>
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</tr>
<tr>
<td>WLDR 146</td>
<td>Oxy-Fuel and Plasma Arc Cutting</td>
<td>2.0</td>
<td>24.0</td>
</tr>
<tr>
<td></td>
<td>Using manual and motorized equipment, you will perform oxy-fuel and plasma arc cutting systems in a variety of applications.</td>
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<tr>
<td>WLDR 147</td>
<td>Gas Metal Arc Welding (Theory)</td>
<td>1.0</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>The gas metal arc welding process utilizes complex equipment and accessories. You will develop and apply a working knowledge of this apparatus. You will also be introduced to metal-cored arc welding and flux-cored arc welding.</td>
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</tr>
<tr>
<td>WLDR 148</td>
<td>Gas Metal Arc Welding (Shop)</td>
<td>8.0</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>You will focus on skill development in using the gas metal arc welding process in a variety of materials, joints, and weld positions. You will also study the operation of metal-cored arc welding (MCAW) and flux-cored arc welding (FCAW).</td>
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<tr>
<td>WLDR 149</td>
<td>Canadian Welding Bureau Welder Qualification</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td></td>
<td>You will complete the Canadian Welding Bureau (CWB) welder qualification tests using the shielded metal arc welding (SMAW), gas metal arc welding (GMAW) and flux-cored arc welding (FCAW) process or the flat groove-fillet (1GF) test.</td>
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<tr>
<td>WLDR 150</td>
<td>Introduction to Gas Tungsten Arc Welding</td>
<td>1.0</td>
<td>20.0</td>
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<tr>
<td></td>
<td>You will develop skill in using the gas tungsten arc welding (GTAW) process on light gauge steel and aluminum material.</td>
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<tr>
<td>WLDR 151</td>
<td>Cutting Processes</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td></td>
<td>You will practice appropriate safety protocols in your introduction to cutting processes. You will use the oxy-fuel manual plasma arc and computer numerical control (CNC) plasma arc processes.</td>
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</tbody>
</table>

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## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
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</thead>
<tbody>
<tr>
<td>WLDR 152</td>
<td>Shielded Metal Arc Welding</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
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<tr>
<td>WLDR 153</td>
<td>Gas Metal Arc Welding 1</td>
<td>1.0</td>
<td>15.0</td>
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<tr>
<td>WLDR 154</td>
<td>Gas Metal Arc Welding 2</td>
<td>5.0</td>
<td>75.0</td>
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<tr>
<td>WLDR 155</td>
<td>Flux-Cored, Metal-Cored and Advanced Wire Feed Processes</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td>WLDR 156</td>
<td>Gas Tungsten Arc Welding</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>WLDR 157</td>
<td>Fabrication Equipment</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>WLDR 158</td>
<td>Oxy Fuel Cutting (OFC) and Plasma Arc Cutting (PAC)</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>WLDR 159</td>
<td>ARC Welding (Shielded Metal Arc Welding)</td>
<td>2.0</td>
<td>30.0</td>
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<tr>
<td>WM 131</td>
<td>Wiring Methods (Cables)</td>
<td>4.0</td>
<td>60.0</td>
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<tr>
<td>WM 132</td>
<td>Wiring Methods (Raceways)</td>
<td>3.0</td>
<td>45.0</td>
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<tr>
<td>WORK 100</td>
<td>Industrial Attachment</td>
<td>0.0</td>
<td>30.0</td>
</tr>
</tbody>
</table>

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**Prerequisite(s):**

- WLDR 153
- WLDR 154
- BT 100*, SFTY 130*

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*You will practice appropriate safety protocols and become familiar with shielded metal arc welding (SMAW) equipment, accessories and consumables. You will perform basic SMAW welds.*

*You will practice appropriate safety protocols and become familiar with Gas Metal Arc Welding (GMAW) equipment, accessories and consumables. You will set up a weld station and perform basic GMAW welds.*

*You will practice appropriate safety protocols and apply gas metal arc welding (GMAW) to a variety of joints, weld positions and material thicknesses.*

*You will practice appropriate safety protocols and apply flux-cored arc welding (FCAW) and metal-cored arc welding (MCAW) in welding mild steel. You will also continue your gas metal arc welding (GMAW) studies in welding aluminum and advanced wave form processes.*

*You will practice appropriate safety protocols and become familiar with gas tungsten arc welding (GTAW) equipment, accessories and consumables. You will set up a weld station and perform GTAW welds.*

*You will focus on safety procedures, equipment set-up, and correct operating procedures of shielded metal arc welding (SMAW). You will gain experience through welding various thicknesses of metal in multiple positions.*

*You will focus on safety procedures, equipment set-up, and correct operating procedures of oxy-fuel cutting (OFC) and plasma arc cutting (PAC). You will gain experience cutting different types of metal with varying degrees of thickness.*

*You will focus on safety procedures, equipment set-up and correct operating procedures of shielded metal arc welding (SMAW). You will gain experience through welding various thicknesses of metal in multiple positions.*

*You will be introduced to installation requirements for electrical circuits using various types of cables. You will become familiar with the minimum Canadian Electrical Code requirements and practice installing typical circuits using various types of cables.*

*You will be introduced to installation requirements for electrical circuits using various types of raceways. You will become familiar with the minimum Canadian Electrical Code requirements and practice installing typical circuits using various types of raceways. You will learn how to bend electrical metallic tubing, PVC conduit, and how to install cable tray.*

*You will gain an understanding of workplace and employer needs as you participate in a work placement.*
### WORK 104 Work Placement Practicum
- **Credit Units:** 2.0  
- **Course Hours:** 30.0  
- **Prerequisite(s):** PRAC 200*

To help you in your final preparations for employment, you will spend one week in industry. You will have the opportunity to observe in the work environment and become familiar with the everyday customer relations and working schedules of a salon.

### WORK 105 Work Experience
- **Credit Units:** 0.0  
- **Course Hours:** 60.0

You will gain valuable experience through a two-week (60 hour) job placement in industry. You will have the opportunity to apply your trade-related technical skills as you increase your understanding of the workplace and employer's needs.

### WORK 106 Work Experience
- **Credit Units:** 0.0  
- **Course Hours:** 120.0  
- **Prerequisite(s):** PROJ 202*, (COMP 216* or DSGN 205*)

You will observe, practice, and work in an interactive media environment. You will be able to complement your education and practical skills training with experiential learning. *Note: Students must complete either WORK 106 - Work Experience or PROJ 101 - Client Directed Project.

### WORK 108 Work Experience
- **Credit Units:** 0.0  
- **Course Hours:** 60.0

You will have an opportunity to observe and participate in the operation of a boiler in the workplace. This experience will help you relate the theory you learned to an operational plant. It will also help you develop contacts for possible future employment.

### WORK 112 Work Placement
- **Credit Units:** 0.0  
- **Course Hours:** 40.0

You will acquire practical bricklaying experience on construction sites.

### WORK 113 Work Experience
- **Credit Units:** 0.0  
- **Course Hours:** 60.0

You will participate in a work placement to further your understanding of workplace employer needs. You will become familiar with the industry and gain practical experience in the welding field.

### WORK 114 Work Experience
- **Credit Units:** 0.0  
- **Course Hours:** 30.0

You will participate in a work placement to further your understanding of industry requirements. Your training will be provided by a journeyperson.

### WORK 115 Work Experience
- **Credit Units:** 0.0  
- **Course Hours:** 80.0

You will participate in a work placement on a construction site to further your understanding of workplace employer needs. You will become familiar with the industry and develop employability skills for the trade.

### WORK 117 Work Experience
- **Credit Units:** 0.0  
- **Course Hours:** 80.0

You will participate in a work placement to further your understanding of workplace employer needs.

### WORK 118 Work Experience
- **Credit Units:** 0.0  
- **Course Hours:** 60.0

You will participate in a work placement to further your understanding of workplace employer needs. You will become familiar with the industry and gain practical experience in the ironworker field.

### WORK 119 Work Experience
- **Credit Units:** 0.0  
- **Course Hours:** 30.0

Industrial placements provide the learner with on-the-job training and access to potential employment. You will spend one week in industry as a requirement of the program.

### WORK 121 Field Work
- **Credit Units:** 2.0  
- **Course Hours:** 30.0

This course exposes the students to actual on-the-job drywalling activities as well as other tasks of the Interior Systems Mechanic. This course provides the student with first-hand experience in the drywall trade.

### WORK 124 Correctional Work Experience
- **Credit Units:** 0.0  
- **Course Hours:** 160.0

You will participate in a work experience in a correctional program where you will demonstrate on-the-job corrections worker skills. Your work experience will provide you with the opportunity to practice and refine your skills in a corrections setting with serving offenders.
WORK 125 Work Placement
Credit Units: 0.0  Course Hours: 80.0
You will spend two weeks gaining experience in the construction industry. This will allow you to apply the technical skills and knowledge you acquired during the program. You will have the opportunity to select a company where you would like to complete your work experience.

WORK 126 Work Preparation
Credit Units: 2.0  Course Hours: 30.0
You will develop skills that allow you to successfully compete for jobs in the field of resources, as well as other related careers.

WORK 127 Work Preparation
Credit Units: 3.0  Course Hours: 45.0
You will develop skills that allow you to successfully compete for jobs in the fields of resource and environmental law, as well as other related law enforcement careers.

WORK 128 Work Experience
Credit Units: 0.0  Course Hours: 300.0
Prerequisite(s):  CAPL 102
You will apply the knowledge and skills you have gained during your classroom based courses in a real world setting. Your role in the work place will be determined by your interests and occupational goals, as well as the needs of your employer. Your work placement will give you the opportunity to show an employer what you can do and how you fit into their organization.

WORK 129 Work Experience
Credit Units: 0.0  Course Hours: 60.0
You will have the opportunity to create a resume, apply job search and job interview skills. You will participate in workplace tours and complete a related practical field experience. The placement offers the unique opportunity to observe and participate in a variety of learning activities related to the field. You will be expected to demonstrate professionalism and ethics in industry settings.

WORK 132 Work Experience
Credit Units: 0.0  Course Hours: 120.0
You will be placed in a typical work situation in industry. You will observe and work with qualified technicians to reinforce content you have previously learned and to become familiar with on-the-job routines and job requirements.

WORK 133 Work Experience
Credit Units: 0.0  Course Hours: 120.0
You will be placed in a typical work situation in industry. You will observe, work with qualified technicians, and demonstrate the skills you have previously learned. You will become familiar with on-the-job routines and job requirements.

WORK 134 Work Experience
Credit Units: 0.0  Course Hours: 120.0
You will be placed in a typical work situation in industry. You will observe and work with qualified technicians. You will demonstrate the previously learned skills and on-the-job routines and job requirements.

WORK 135 Work Experience
Credit Units: 0.0  Course Hours: 40.0
You will participate in a variety of law enforcement agency experiences and perform traffic stops in a simulated environment.

WORK 144 Work Experience 1
Credit Units: 0.0  Course Hours: 75.0
Prerequisite(s):  COMM 185
The course provides an introduction to working conditions and activities in an underground mine.

WORK 148 Work Experience 2
Credit Units: 0.0  Course Hours: 75.0
Prerequisite(s):  WORK 144
Building on the practical skills and experience you gained in WORK 144 (Work Experience 1), you will have an opportunity to develop your hands-on practical skills and knowledge.

WORK 149 Work Experience
Credit Units: 0.0  Course Hours: 80.0
Equivalent Course(s):  WORK 170
You will participate in a work placement to further your understanding of workplace employer needs. You will become familiar with the industry and gain practical experience in the workplace.
WORK 154 Work Experience
Credit Units: 0.0  Course Hours: 60.0
Equivalent Course(s): WORK 154CE
You will participate in a work experience in a community setting in order to integrate theory and practice in a setting where you perform identified agency tasks.

WORK 155 Work Experience
Credit Units: 0.0  Course Hours: 40.0
You will participate in a work experience in a community setting where you will demonstrate effective communication and problem solving skills, and perform assigned security officer functions.

WORK 156 Work Placement
Credit Units: 0.0  Course Hours: 80.0
You will be placed in a typical work situation in industry. Observing and working with qualified mechanics will help you gain insight into work habits, on the job routines, and job requirements.

WORK 168 Work Experience
Credit Units: 0.0  Course Hours: 75.0
You will demonstrate knowledge and skills in a workplace setting.

WORK 169 Work Experience
Credit Units: 0.0  Course Hours: 60.0
Prerequisite(s): BESK 170, DRFT 177, MACH 101, MACH 150*, MACH 151*, MEAS 161, WLDR 151, WLDR 153
You will practice your technical workplace skills while maintaining industry-standard communication, safety and quality expectations.

WORK 170 Work Placement
Credit Units: 0.0  Course Hours: 80.0
You will be placed in a typical work situation in industry. Observing and working with qualified mechanics will help you gain insight into work habits, on-the-job routines and job requirements.

WORK 183 Field Experience
Credit Units: 0.0  Course Hours: 60.0
Prerequisite(s): FOOD 189, SFTY 192
Equivalent Course(s): PRAC 279
You will gain experience through on the job training in a food service facility (health-care or commercial). You will have the opportunity to observe and participate in the workplace, ask questions to apply and/or clarify theory you have learned in the classroom, and practice skills you have acquired in production areas.

WORK 185 Work Experience 1
Credit Units: 0.0  Course Hours: 60.0
Prerequisite(s): SEM 101, SFTY 172
You will have an opportunity to observe and participate in the operation of a boiler in the workplace. You will study the impact of shift work on personal health and wellness. You will learn how to effectively manage the negative effects commonly associated with rotating shift work. This experience will help you relate theory you learned to an operational plant. It will also help you develop contacts for possible future employment.

WORK 186 Work Experience 2
Credit Units: 0.0  Course Hours: 60.0
Prerequisite(s): WORK 185
You will have the opportunity to observe and participate in the operation of a 4th Class or higher steam plant with a different function than your first work experience. With this additional experience you will gain more insight into the different boilers and equipment which you will be qualified to operate. It will also help you make a more informed choice and to develop contacts for future employment.

WORK 191 Dealership Work Experience
Credit Units: 0.0  Course Hours: 80.0
You will spend two weeks gaining experience in an agricultural equipment dealership. This will allow you to apply the technical skills and knowledge you acquired during the program. You will have the opportunity to select a company where you would like to complete your work experience.
# Course Descriptions

**WORK 192 Core Work Experience**  
Credit Units: 0.0  
Course Hours: 30.0  
Equivalent Course(s): WORK 192CE  
You will spend one week in an approved funeral home in your community observing practices in providing care of deceased, funeral arrangements and services. You will participate in related duties as assigned by your supervisor and will be expected to demonstrate professionalism at all times.

**WORK 194 Introductory Work Experience**  
Credit Units: 0.0  
Course Hours: 30.0  
Prerequisite(s): ORTN 190  
Equivalent Course(s): PRAC 188  
You will be placed in a Saskatoon library to become better acquainted with day to day operations of a library. Assignments will vary and will be dependent upon the library but will be within your educational experience.

**WORK 196 Work Experience**  
Credit Units: 0.0  
Course Hours: 154.0  
You will get an opportunity to apply the theory learned in the classroom to the mine site, learn site-specific on-the-job procedures, experience mining camp life, and demonstrate your suitability for employment.

**WORK 197 Work Experience**  
Credit Units: 0.0  
Course Hours: 240.0  
You will use the knowledge and skills developed in the first year of your studies in an actual professional work environment.

**WORK 198 Work Experience**  
Credit Units: 0.0  
Course Hours: 30.0  
Equivalent Course(s): WORK 198CE  
This course will cover the practices and procedures for material movement in a warehouse or parts distribution facility with focus on theory and practical operations of various material handling equipment movement of material efficiently within the design and spatial requirements of the facility.

**WORK 201 Work Experience**  
Credit Units: 0.0  
Course Hours: 120.0  
Prerequisite(s): AUDI 203, VDEO 207, (VDEO 204 or VDEO 205 or VDEO 206)  
You will observe, practice and work in a media production environment. This experiential learning will complement your education and practical skills training. *Note: Students must complete either WORK 201-Work Experience or PROJ 207-Client Directed Project.

**WORK 203 Practicum**  
Credit Units: 0.0  
Course Hours: 160.0  
Prerequisite(s): COMP 175, CHEM 179, CHEM 282, MATH 192, MATH 289, SFTY 185  
You will work in an organization to complete a t research project. You will work with a chemist, chemical engineer, or chemical technologist to design the experiments and manage the project. You will maintain a logbook, use statistical tools to assess your results and troubleshoot minor equipment problems. You will demonstrate good communication skills and work as a team member. You will demonstrate responsibility, initiative and accountability.

**WORK 285 Work Experience 1**  
Credit Units: 0.0  
Course Hours: 105.0  
Prerequisite(s): WORK 194, LIB 196  
Equivalent Course(s): PRAC 111  
You will participate in a three week supervised work placement in a library. The tasks assigned will be typical of a library technician and within your educational experience. Depending on the hours of the particular library, you may experience shift and weekend work. You may choose a location in or out of Saskatoon.

**WORK 286 Work Experience 2**  
Credit Units: 0.0  
Course Hours: 105.0  
Prerequisite(s): WORK 285, LIB 290  
Equivalent Course(s): PRAC 112  
You will participate in a three week supervised work placement in a library. You will use your previous library experience and additional classroom theory in a library setting where you will perform typical library technician duties at an advanced level. Depending on the hours of the particular library, you may experience shift or weekend work. Depending on your location for WORK 285, this may be required to be a library outside of Saskatoon.

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## Course Descriptions

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
<th>Course Hours</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORK 300</td>
<td>Work Experience</td>
<td>0.0</td>
<td>160.0</td>
<td>GRPH 231</td>
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<tr>
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<td>You will participate in a four-week work experience which will prepare you for</td>
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<td>employment in the graphic communications industry. You will work within the</td>
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<td></td>
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<td>graphic communications industry in Saskatchewan.</td>
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<tr>
<td>WORK 302</td>
<td>Work-Integrated Learning (Optional)</td>
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<td>480.0</td>
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<tr>
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<td>Your work-integrated learning experience will provide you with the opportunity</td>
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<td>to consolidate theoretical and practical concepts from the Construction</td>
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<td>Management program in a paid work experience. You will gain valuable experience</td>
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<td>about the Canadian construction industry.</td>
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<tr>
<td>WORK 402</td>
<td>Work Experience</td>
<td>0.0</td>
<td>180.0</td>
<td>WORK 440</td>
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<td>Equivalent Course(s):</td>
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<td>You will participate in and report on a minimum six-week work experience</td>
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<td>in the field of resource and/or environmental law enforcement. The work</td>
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<td>experience provides you with an opportunity to apply the skills and knowledge</td>
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<td>you learned in the classroom.</td>
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<td>WORK 403</td>
<td>Work Experience</td>
<td>0.0</td>
<td>180.0</td>
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<td>You will participate in and report on a six-week work experience. You will</td>
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<td>apply and demonstrate your knowledge and skills in the field of natural</td>
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<td>resource management.</td>
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<td>WORK 404</td>
<td>Consolidated Collaborative Work Experience</td>
<td>0.0</td>
<td>140.0</td>
<td>PSYN 208, PSYN 300, PSYN 303, PSYN 304, PSYN 308, ENGL 100, STAT 202, (PSYN 209,</td>
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<td>PSYN 210, PSYN 307, SOCI 200 or PSYN 309, (SOCI 100 or PSYC 101)</td>
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<td>You will demonstrate synthesis and application of the Bachelor of Psychiatric</td>
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<td>Nursing program’s theoretical concepts in a mutually agreed upon work</td>
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<td>experience related to either education, research or leadership and management.</td>
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<td>You will demonstrate relevant psychiatric nursing competencies.</td>
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<td>WORK 600</td>
<td>Work Integrated Learning</td>
<td>0.0</td>
<td>640.0</td>
<td>PROJ 600, MGMT 600</td>
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<td>Your work-integrated learning experience will provide you with the opportunity</td>
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<td>to consolidate theoretical and practical concepts from the Technology</td>
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<td>Management post-graduate program in a paid work experience. You will gain</td>
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<td>valuable experience about Canadian business and Information Technology</td>
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<td>operations in Canada.</td>
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<tr>
<td>WRHS 180</td>
<td>Program to Industry Orientation</td>
<td>1.0</td>
<td>10.0</td>
<td>MATE 186*, EQPT 191*, FIRE 180*, MATE 183*, PART 198*, SFTY 186*, WRHS 181*,</td>
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<td>WRHS 182*, COMM 127*, SFTY 197*</td>
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<td>You will learn the duties for working in shipping and receiving areas through</td>
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<td>the use of lectures, tours and speakers from industry.</td>
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<tr>
<td>WRHS 181</td>
<td>Warehouse Systems</td>
<td>1.0</td>
<td>20.0</td>
<td>PART 197</td>
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<td>Equivalent Course(s):</td>
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<td>You will develop a working knowledge of warehouse system method, security and</td>
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<td>document tracking systems.</td>
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<td>WRHS 182</td>
<td>Warehouse Productivity</td>
<td>1.0</td>
<td>10.0</td>
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<td>You will learn how a warehouse is designed to facilitate the prioritizing of</td>
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<td>product movement and time management. You will learn how a warehouse can be</td>
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<td>more productive.</td>
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<td>WTER 100</td>
<td>Water Treatment 1</td>
<td>1.0</td>
<td>15.0</td>
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<td>You will be introduced to basic methods utilized in power plants to prepare</td>
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<td>and maintain water used in steam generation. You will practice your skills by</td>
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<td>operating a low pressure power plant.</td>
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## Course Descriptions

### WTER 130 Water Treatment 1
- **Credit Units:** 5.0  
- **Course Hours:** 80.0  
- **Equivalent Course(s):** WTER 130CE

Your studies will focus on the basics of conventional water treatment. You will become familiar with the processes of surface water treatment, reservoir management, coagulation and flocculation, sedimentation, filtration, disinfection, taste and odour control, corrosion control. The course includes a mathematics review.

### WTER 131 Water Treatment 2
- **Credit Units:** 5.0  
- **Course Hours:** 80.0  
- **Prerequisite(s):** WTER 130  
- **Equivalent Course(s):** WTER 131CE

You will build on the skills you gained in WTER 130 and will continue your studies in surface water and groundwater treatment. Your studies will include iron, manganese and trihalomethane control, fluoridation, softening, plant waste disposal, maintenance and instrumentation.

### WTER 132 Water Distribution 1
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Equivalent Course(s):** WTER 132CE

You will become familiar with the processes of water distribution. Your studies will focus on the installation, inspection, operation, maintenance, and repair of water distribution systems.

### WTER 133 Water Distribution 2
- **Credit Units:** 3.0  
- **Course Hours:** 45.0  
- **Prerequisite(s):** WTER 132  
- **Equivalent Course(s):** WTER 133CE

You will build on skills you gained in WTER 132 to study operation and maintenance of water distribution systems. Your studies will focus on safe practices and procedures, disinfection of new and repaired facilities, taste and odour control, corrosion control and water distribution system management.

### WTER 134 Wastewater Collection 1
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Equivalent Course(s):** WTER 134CE

Your studies will focus on the aspects of operating and maintaining wastewater collection systems. You will examine the processes of wastewater collection as well as the need for collection system operation and maintenance. You will study safety procedures required for construction, inspection and testing of sewers, the inspection of manholes and underground construction and repair.

### WTER 135 Wastewater Collection 2
- **Credit Units:** 4.0  
- **Course Hours:** 60.0  
- **Prerequisite(s):** WTER 134  
- **Equivalent Course(s):** WTER 135CE

You will build on skills you gained in WTER 134 and will study the operation, maintenance and management of wastewater collection systems with an emphasis on safe practices and procedures. You will examine the operation of lift stations, operation and maintenance of pumps, valves and motors as well as sewer rehabilitation.

### WTER 136 Wastewater Treatment 1
- **Credit Units:** 5.0  
- **Course Hours:** 80.0  
- **Equivalent Course(s):** WTER 136CE

Your studies will focus on the basics of conventional wastewater treatment. You will examine the uses of racks, screens and sedimentation tanks. You will discuss the processes of sedimentation, floatation, trickling filters, rotating biological contactors, activated sludge, oxidation ditches and ponds and disinfection.

### WTER 137 Wastewater Treatment 2
- **Credit Units:** 5.0  
- **Course Hours:** 80.0  
- **Prerequisite(s):** WTER 136  
- **Equivalent Course(s):** WTER 137CE

You will build on the skills you gained in WTER 136 and will examine conventional activated sludge, sludge digestion, solids handling, and effluent disposal. You will also examine the operation, maintenance and management of a wastewater treatment plant with an emphasis on safe practices and procedures.
WTER 181 Water Treatment 3
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  WTER 280
You will learn about the need for and the methods used to treat water in large power plants. You will learn to use instruments in order to detect problems, take samples and measure chemical levels. You will study treatment and testing methods for cooling water, industrial waste treatment and potable water.

WTER 182 Water Treatment 1
Credit Units: 2.0  Course Hours: 30.0
You will study the basic methods utilized in power plants to prepare and maintain the water used in steam generation.

WTER 200 Water Management
Credit Units: 3.0  Course Hours: 45.0
You will learn how water is managed at federal, provincial and municipal levels. With an emphasis on how water is valued, you will learn how decisions are made to protect consumptive and non-consumptive uses and how watershed planning is used to protect the quality of water.

WTER 226 Organic Chemistry
Credit Units: 3.0  Course Hours: 50.0
Prerequisite(s):  WTER 230, (LABS 220 or LABS 202)
You will study the general principles of organic chemistry and the importance of microbiology as they apply to environmental monitoring, control and analysis. You will apply these theories to proper sampling protocol and laboratory analysis, with an emphasis on interpreting the laboratory results.

WTER 230 Water Chemistry 1
Credit Units: 5.0  Course Hours: 68.0
Prerequisite(s):  MAT 101, MEAS 106, (LABS 202* or LABS 220*)
You will study the general principles of chemistry and chemical calculations. Stoichiometry, concentration determination, equilibrium, acid-base chemistry, pH, volumetric and gravimetric analysis, and interpreting quantitative results with regard to accepted standards will be emphasized.

WTER 231 Watershed Management
Credit Units: 3.0  Course Hours: 40.0
Prerequisite(s):  TERR 101, TERR 102
Corequisite(s):  HYDO 228
You will learn how water is managed at federal, provincial and municipal levels. With an emphasis on how water is valued, you will learn how decisions are made to protect consumptive and non-consumptive uses and how watershed planning is used to protect the quality of water.

WTER 232 Water and Wastewater
Credit Units: 5.0  Course Hours: 80.0
Prerequisite(s):  WTER 226, HYDR 221
You will study typical and advanced unit processes utilized in water and wastewater treatment. You will examine detailed physical, chemical and biological treatments utilizing information and skills gained from previous courses in water chemistry and water and wastewater treatment to complete a water assessment project. You will incorporate regulatory guidelines and industry standards into the design portion of the project.

WTER 233 Water and Wastewater
Credit Units: 3.0  Course Hours: 48.0
You will work with the parameters required to plan the design of unit operations for municipal water and wastewater facilities. You will discuss current threats to water sources. Current physical, chemical and biological treatment processes will be outlined. You will also review regulatory requirements.

WTER 280 Water Treatment 2
Credit Units: 2.0  Course Hours: 30.0
Prerequisite(s):  WTER 182
You will study internal and external water treatment processes in depth. You will examine external treating process to gain an understanding of wastewater treatment.
Course Descriptions

YCW 188 Therapeutic Activities
Credit Units: 3.0  Course Hours: 40.0
Equivalent Course(s):  REC 184, YCW 188CE
You will examine the role of the youth care worker in planning and implementing culturally and developmentally appropriate activities for youth and families at risk. In the role of the Youth Care Worker, you will develop, implement, and evaluate individual and group activities, aboriginal cultural activities, and activities that involve the use of social media.

YCW 189 Indigenous Awareness
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  YCW 189CE
You will receive an introduction to First Nations and Métis Nations of Canada. You will examine historical and current issues that affect Indigenous peoples. You will explore racism and will develop an understanding of how self-awareness impacts helping relationships.

YCW 281 Youth Care Practices 2
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PRAC 385
Equivalent Course(s):  YCW 281CE
You will focus on the role of community development as a tool to improve service for youth. You will learn how to advocate for change and manage barriers that impede effective service delivery.

YCW 282 Family Systems
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  YCW 282CE
You will examine the structure and patterns of family life in the context of Canadian cultural and societal diversity. You will identify and discuss issues that impact family functioning. You will use strength based assessments, interventions, and strategies that promote resilience and healthy family life while in the role of a youth care worker.

YCW 283 Sexual Victimization
Credit Units: 3.0  Course Hours: 40.0
Prerequisite(s):  PRAC 385
Equivalent Course(s):  YCW 283CE
You will focus on the scope and characteristics of sexual violence in Canada. You will learn to identify indicators of sexual abuse, the impact on the victim and family and the recovery process. You will study the importance of self-awareness and self-care.

YCW 284 Addictions
Credit Units: 3.0  Course Hours: 45.0
Equivalent Course(s):  YCW 284CE
You will examine historical trends and perspectives of addictive behaviours and interventions, with a focus on substance, gambling, and sexual addictions. You will identify drug classifications and the impact of addiction on family functioning. You will learn about prevention, intervention, and treatment options.

YCW 285 Conflict Resolution
Credit Units: 3.0  Course Hours: 45.0
Prerequisite(s):  PRAC 385
Equivalent Course(s):  YCW 285CE
You will be introduced to conflict theory and to approaches of resolving interpersonal conflict. You will examine the model of Interest Based Conflict Resolution. You will act as a mediator by applying the stages of the model. You will examine the process of mediation, family conferencing and community-based restorative justice in the criminal justice system.

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