Arts & Sciences (A&S)

Communications, Social Sciences, Mathematics, and Sciences

PLAR Candidate Guide

Prior Learning Assessment and Recognition (PLAR)

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Prior learning credit options at Saskatchewan Polytechnic

See Get Credit for What you Know for important information about all options to get credit for prior learning at Sask Polytech, including PLAR, transfer credit, Canadian Armed Forces credit, and equivalency credit.

How to navigate this document

This document contains links to other document sections or webpages. To return to where you were from another section in this document, press the *ALT* key and *left arrow* key at the same time. To return to this webpage from another webpage, close the other webpage or click back on the browser tab for this document.

Contents of this guide

This guide contains the following specific PLAR information and tools for this program

A. PLAR fees

Fees for PLAR challenges are set to cover our costs for consultation, assessment, and related administrative tasks. PLAR fees are non-refundable and non-transferrable.

The PLAR fees policy is subject to change for each new academic year. Please see the **Cost** section on the PLAR webpage for current fee information.

B. PLAR eligibility and options

The only option for A&S is single course PLAR. There are no block PLAR assessments for a group of courses.

Individual course PLAR

Individual course PLAR means that each single course is assessed separately. Consult with the program head of your program to discuss eligibility to PLAR courses. For some programs, you need to apply and be admitted to the program before you can register for any courses in that program, including A&S courses. Some courses have pre-requisite courses that must be completed first.

Course pre-requisites and co-requisites

Some courses have one or more other courses that must be completed first (pre-requisite) or at the same time (co-requisite). See course outlines in this guide to identify any pre- or corequisites for each course. Discuss with your A&S PLAR contact person how to deal with courses with corequisites.

C. Dates when PLAR assessment is available

PLAR applications are currently being accepted. PLAR approvals are made at the discretion of the A&S program head after all appropriate consultations have been completed. The best time to apply for PLAR is before your program or the course you want to PLAR starts. Complete steps 1 - 6 in Section D below within two weeks of the course beginning. If your request for PLAR is approved, the PLAR contact will communicate the deadline for PLAR assessment. Instructors may not be available to conduct PLAR assessment during the months of July and August.

If requesting PLAR for the upcoming academic year, PLAR assessment must be completed by June 15 of the current academic year.

D. Directions to consult and register for A&S PLAR

1. **Review** the PLAR process and FAQs and the information in this guide.

2. **Self-rate**: Complete the self-rating checklists in the next section to estimate your level of competence for the learning outcomes of each course.

3. **Print [*or convert to electronic file*]**: If PLAR for one or more courses appears to be an option for you, print or save the PLAR Application Form, with your personal information filled in. Also print or save the self-rating checklists for courses you want to PLAR.

4. **Consult with your program head:** Take or send your PLAR Application Form to your program head to discuss your PLAR plans. Your program head must sign the PLAR Application Form to confirm the consultation.

5. **Contact**: Call or email the A&S PLAR contact person listed on the course outline for the A&S course(s) you want to PLAR.

6. **Prepare**: Ask the A&S PLAR contact person what to bring with you or submit prior to a meeting. The following items are commonly requested:

    - A printed PLAR Application Form with your personal information filled in, and
    - Completed self-rating checklists for each course you may want to PLAR

7. **Submit:** Submit your completed PLAR application to Registration/Enrolment Services.

8. **Complete**: Finish your assessment before the deadline outlined in your assessment plan.

E. PLAR contact person

Complete the following steps **before** you contact the A&S PLAR consultant at your campus:

☐ review (a) and (b) A&S-specific PLAR information in this guide and (b) A&S-specific PLAR information in this guide

☐ self-rate your competence level for the learning outcomes of each course you may want to PLAR

☐ consult with your program head and obtain their signature on your PLAR ApplicationForm

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F. Self-rating course outlines

This section provides an outline for each Arts and Sciences course. Course learning outcomes describe the knowledge and skills that are assessed for PLAR credit.

Use the checklist provided for each course to self-rate your competence level for each learning outcome. Your self-ratings will help you estimate your readiness for PLAR. Email or bring your completed checklists to the A&S PLAR contact person to be reviewed for an initial consultation.

COURSE CODE	COURSE NAME
ANAT 166	Anatomy and Physiology of the Head and Neck
ANLT 300	Applied Critical Thinking & Logic
ANLT 301	Globalization
ANLT 302	Analytical Decision Making
ANLT 600	Business Mathematics and Data Analytics
APHY 100	Anatomy and Physiology 1
APHY 103	Introduction to Anatomy/Physiology
APHY 160	Essentials of Human Anatomy and Physiology
APHY 164	Anatomy and Physiology 1
APHY 165	Anatomy and Physiology 2
APHY 170	Adv Human Anatomy/Physiology
APHY 200	Anatomy and Physiology 2
BCOM 120	Business Communications 1
BCOM 121	Business Communications 2
BCOM 300	Prof. Writing & Presentations
BCOM 600	Business Communications
BIOL 100	Human Anatomy and Physiology 1
BIOL 101	Human Anatomy and Physiology 2
BIOL 102	Anatomy and Physiology 1
BIOL 103	Anatomy and Physiology 2
BLAW 281	Business Law
BPRT 105	Print Reading and Fabrication
BPRT 106	Draw Interpretation/Work Plan
BPRT 203	Draw Interpretation/Work Plan
BPRT 251	Print Reading and Fabrication
BPRT 322	Aviation Business
BUS 183	Aviation Business
CDNS 280	Canadian Government
CDNS 300	Canadian Government

CHEM 102	General Chemistry 1
CHEM 103	General Chemistry 2
CHEM 125	Chemistry 1
CHEM 202	Chemistry
CHEM 225	Chemistry 2
CHEM 301	Chemistry
CLTR 119	Indigenous Cultural Awareness
CLTR 200	Culture and Diversity
COM 107	Industrial Communications
COM 109	Industrial Communications
COM 112	Comm/Trade Documentation
COM 170	Professional Workplace Communications
COM 200	Business Communications
COMM 113	Applied Communications
COMM 116	Communication Skills
COMM 119	Writing Skills
COMM 127	Fundamental Communication Skills
COMM 185	Industrial Communications
COMM 262	Workplace Communication
COMM 289	Communications 2
COMM 295	Business and Technical Writing
COMM 301	Managerial Communication
COMM 393	Communications 1
COMM 480	Communications
COMP 170	Basic Computer Operation
COMP 171	Introduction to Microsoft Word
COMP 172	Introduction to Microsoft Word/Excel
COMP 173	Introduction to MS Power Point and Web Publication
COMP 176	Introduction to Microsoft Access 1
COMP 179	Introductionto to Power Point
COSC 262	Database Programming

DRAW 100	Technical Drawing
DRFT 113	Drafting/Blueprint Reading
DRFT 188	Technical Drawing/Blueprint Read
DRFT 283	Technical Draw/Blueprint Read
EMPL 180	Employability Skills
ENGL 100	Critical Reading and Writing
ENGL 101	Critical Reading and Writing
ENGL 102	Literature Survey
ETHC 100	Professional Ethics
HINF 265	Health Information Systems
HIST 100	History of Agriculture
HIST 280	World History
IPSK 100	Interpersonal Communication
INDG 100	Intro to Indigenous Studies
INDG 200	Indigenous Studies 1
INDG 201	Indigenous Studies 2
INDG 600	Indigenous Studies
JOBS 125	Essential Job Skills
LEAD 301	Innovation and Leadership
MAT 110	Mathematics for Engineering Technologies
MAT 102	Vector Algebra
MAT 103	Linear Algebra
MAT 111	Calculus for Engineering Technologies
MAT 112	Differential Calculus for Engineering Technologies
MAT 124	Technical Mathematics 1
MAT 200	Advanced Calc/Stats Analysis
MAT 210	Integral Calculus for Engineering Technologies
MAT 211	Advanced Math for Engineering Technologies
MAT 223	Calculus 1 for Electrical Eng
MAT 232	Calculus
MAT 233	Statistics

MAT 235	Multivariable Calculus
MAT 238	Electronics Des and Tranforms
MATH 104	Applied Mathematics
MATH 106	Plumbing/Pipefitting Math
MATH 107	Trade Mathematics
MATH 108	IM/Level 1 Trade Mathematics
MATH 109	Mathematics
MATH 112	Trade Math
MATH 114	Mathematics
MATH 115	Calculus for Architectural Technology
MATH 117	Industrial Mathematics
MATH 118	Ironworker Mathematics
MATH 119	Mathematics
MATH 125A	Industrial Mathematics
MATH 127	Trade Math
MATH 131	Trade Mathematics
MATH 135	Trade Math
MATH 136	Trade Math
MATH 137	Ironworker Mathematics
MATH 138	Applied Mathematics
MATH 139	Business Mathematics
MATH 157	Mathematics
MATH 158	Mathematics
MATH 159	Trade Mathematics
MATH 165	Mathematics for Printers
MATH 167	Applied Mathematics 2
MATH 169	Trade Mathematics
MATH 178	Mathematics 1
MATH 179	Trade Mathematics
MATH 181	Industrial Mechanics Certificate Trade Mathematics
MATH 189	Mathematics 1

MATH 190	Mathematics for Fabricator 1
MATH 191	Mathematics
MATH 192	Laboratory Mathematics
MATH 198	Trade Mathematics
MATH 199	Mathematics
MATH 201	IM/Level 2 Trade Mathematics
MATH 202	Industrial Mathematics 2
MATH 203	Welding Mathematics 2
MATH 204	Business Mathematics
MATH 221	Ironworker Mathematics
MATH 258	Mathematics
MATH 278	Mathematics 2
MATH 279	Fabricators Math
MATH 280	Mathematics for Vet Technology
MAHT 281	Applied Mathematics
MATH 286	Trade Mathematics
MATH 289	Mathematics 2
MATH 299	Intermediate Algebra and Basic Trigonometry
MATH 300	Trade Mathematics
MATH 301	Forestry Math Fundamentals
MATH 310	Welding Mathematics 3
MATH 381	Trade Mathematics
MATH 382	Mathematics
MATH 386	Mathematics
MATH 389	Mathematics
MATH 390	Technical Mathematics for Engineering Calculations
MATH 392	MATH and Trigonometry
MATH 400	Trade Mathematics
MATH 480	Mathematics
MATH 482	Trade Mathematics
MEAS 105	Applied Trade Measurement

MICR 159	Microbiology
MICR 160	Microbiology
NUTR 201	Nutrition
PHYS 101	Engineering Physics
PHYS 103	Physics 1 for Geomatics
PHYS 104	Physics for Engineering Design and Drafting Technology
PHYS 105	Physics
PHYS 106	Physics
PHYS 107	Instrumentation Physics
PHYS 122	Physics
PHYS 185	Physics
PHYS 200	Physics 2 for Geomatics
PHYS 227	Physics
PHYS 228	Physics: Light, Heat and Sound
PR 281	Community Public Relations
PRNT 100	Blueprint Reading
PRNT 385	Tech Drawing/Blueprint Reading
PSYC 101	Introduction to Psychology
PSYC 102	Introduction to Psychology 1
PSYC 103	Introduction to Psychology 2
PSYC 104	Phsycology Health/Wellness Management
PSYC 160	Psychology 1
PSYC 280	Psychology of Grief
PSYN 309	Open Elective 2
QM 220	Quant Methods for Accountancy
SCI 108	Plumbing/Pipefitting Science
SEM 101	Technology Seminars
SOCI 100	Introduction to Sociology
SOCI 101	Cultural/Indig Aware in HC
SOCI 160	Foundations of Sociology
SOCI 170	Sociology

SOCI 171	Culture and Diversity in Canadian Culture
SOCI 200	Culture & Diversity in Hlth Sc
SOCI 201	Culture/Diversity/Hlth Science
SOCI 300	Culture and Diversity in Canadian Society
STAT 100	Introductory Statistics
STAT 101	Introductory Statistics and Computer Applications
STAT 120	Business Statistics
STAT 181	Intro Stats & Computer Appl 1
STAT 200	Statistics for Technology
STAT 201	Statistics for Engineering Technology
STAT 202	Introductory Statistics
STAT 260	Statistics for Health Sciences
STAT 281	Stat/Computer Applications
STAT 285	Introductory Statistics
STAT 286	Statistics/Computer Appl 2
STAT 300	Statistics and Risk Analysis
SUPP 1803	Student Achievemnet Strategies
SUPP 1804	Writing Improvement
TCOM 102	Workplace Communications
TCOM 103	Technical Communications
TCOM 104	Applied Research in Technology 2
TCOM 105	Communications for Technicians
TCOM 106	Communications
TCOM 109	Tech Communications for Trades
TCOM 110	Workplace Communications
TCOM 111	Technical Communication
TCOM 140	Basic Comm. for Technicians
TCOM 190	Technical Communications
TCOM 300	Technical Communications
TCOM 601	Technical Communications
TCOM 600	Business Technology Communications

THER 182	Thermodynamics
THER 183	Thermodynamics and Mechanics

ANAT 166 – Anatomy and Physiology of the Head and Neck

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.

Credit unit(s): 2.0
Prerequisites: BIOL 101
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the superficial regions of the head and neck.			
2. Describe the structures, locations, and functions of the tissues of the oralcavity.			
3. Describe the skull, mandible and temporomandibular joint and theiranatomical features.			
4. Describe the location, action and innervation of the muscles of the headand neck.			
5. Describe the arterial and venous circulation of the head and neck.			
6. Describe the lymph nodes of the head and neck.			
7. Describe the functions of the immune system.			
8. Describe the innervation of the head and neck.			

ANLT 300 – Applied Critical Thinking & Logic

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the principles of critical thinking and essential characteristics of an argument.			
2. Analyze the structure of an argument.			
3. Evaluate an argument using concepts of categorical and propositional logic.			
4. Examine elements of critical thinking and logic applied to projects or problems in construction science management.			
5. Apply elements of critical thinking and logic to projects or problems in construction science management.			
6. Evaluate projects or problems in construction science management using elements of critical thinking and logic.			

ANLT 301 - Globalization

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Discuss the global business environment.			
2. Describe how culture differences between countries impact international business activities.			
3. Describe the role of politics and law in international business.			
4. Explain the effect that economics has on international business.			
5. Explain the significance of international trade and investment.			
6. Describe the significance of international financial markets and the international monetary system.			
7. Explain how companies analyze potential new international markets.			
8. Explain factors contributing to the selection and management of international entry modes.			
9. Explain how differences in national business environments have an impact on the development of marketing strategies.			

ANLT 302 – Analytical Decision Making

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the role of logic in language and argument.			
2. Distinguish fact from opinion and knowledge from belief.			
3. Distinguish premises, conclusions, fallacies and tautologies.			
4. Describe inductive and deductive reasoning, and apply them to problems.			
5. Identify true problems rather than symptoms.			
6. Determine and authenticate information relevant to a problem.			
7. Analyze attitudes and activities that are anti-critical-thinking and illogical.			
8. Apply relevant elements of critical thinking and logic to ordinary and famous problems from current events, history, business, science and technology.			
9. Apply critical and analytical thinking.			

ANLT 600 – Business Mathematics and Data Analytics

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

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe Business Analytics and understand how it works in business.			
2. Calculate time value of money involved in business.			
3. Analyze the cost/benefit and calculate return on investment (ROI) using a spreadsheet.			
4. Apply common metrics (measures of central tendency and measures of dispersion) in data analysis.			
5. Perform descriptive analysis using software.			
6. Perform predictive analysis using spreadsheet software.			

APHY 100 – Anatomy and Physiology 1

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, and certain organ systems. You will learn the structures and functions of the integumentary, skeletal, muscular, cardiovascular, and respiratory systems.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the sciences of anatomy and physiology of the human body.			
2. Describe the chemical levels of organization of the human body.			
3. Describe the structures and functions of human cells.			
4. Describe the structures and functions of human tissues.			
5. Describe the structures and functions of the integumentary system.			
6. Describe the structures and functions of the skeletal system.			
7. Describe the structures and functions of the muscular system.			
8. Describe the structures and functions of blood.			
9. Describe the structures and functions of the cardiovascular system.			
10. Describe the structures and functions of the lymphatic system.			
11. Describe the structures and functions of the respiratory system.			

APHY 103 – Introduction to Anatomy/Physiology

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the anatomical and organizational levels of the body.			
2. Describe the chemical constituents, structure and functions of the cell.			
3. Describe the characteristics and functions of tissues, membranes and the integumentary system of the body.			
4. Describe the structure and function of the skeletal system, articulations and the muscular system.			
5. Describe the structure and function of the nervous and endocrine systems.			
6. Describe the components of blood and their functions and the role of the heart in the cardiovascular system.			
7. Describe the structure and function of the circulatory system (cardiovascular and lymphatic) and respiratory system.			
8. Describe the structure and function of the digestive system.			
9. Describe the structure and function of the urinary and reproductive systems.			

APHY 160 – Essentials of Human Anatomy and Physiology

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

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the organization of the human body and homeostatic regulation.			
2. Describe the structures and functions of human cells, tissues, and integumentary system.			
3. Describe the structures and functions of the musculoskeletal system.			
4. Describe the structures and functions of the nervous system, the special and general senses, and the endocrine system.			
5. Describe the structures and functions of the blood and cardiovascular system.			
6. Discuss the structures and functions of the lymphatic system.			
7. Describe the structures and functions of the respiratory system.			
8. Describe the structures and functions of the digestive, urinary and reproductive system.			

APHY 164 - Anatomy and Physiology 1

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): APHY 164CE

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the structural organization of the human body.			
2. Describe the chemical level of organization.			
3. Describe the cellular level of organization.			
4. Describe the tissue level of organization.			
5. Describe the structure and function of the respiratory system.			
6. Describe the structure and function of the cardiovascular system.			
7. Describe the structure and function of the central nervous system.			
8. Describe the structure and function of the peripheral nervous system.			

APHY 165 – Anatomy and Physiology 2

You will study of 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.

Credit unit(s): 3.0
Prerequisites: APHY 164
Corequisites: none
Equivalent course(s): APHY 165CE

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the structure and function of the immune system.			
2. Describe the structure and function of the endocrine system.			
3. Describe the structure and function of the urinary system.			
4. Describe the structure and function of the reproductive system.			
5. Describe the structure and function of the digestive system.			
6. Describe the structure and function of the integumentary system.			
7. Describe the structure and function of the skeletal system.			
8. Describe the structure and function of the muscular system.			

APHY 170 – Adv Human Anatomy/Physiology

In this course, you will advance your knowledge of the human body through an in-depth study of the nervous, cardiovascular, respiratory, urinary, musculoskeletal and reproductive systems. Emphasis is placed on how body systems are interrelated to maintain homeostatic balance. You will be required to research how the physiological principles covered apply to real-world scenarios.

Credit unit(s): 2.0
Prerequisites: BIOL 102, BIOL 103
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Illustrate how anatomical structures and physiological processes work together in the nervous, cardiovascular, respiratory, and musculoskeletal systems.			
2. Perform guided dissections (simulated and authentic) to examine the anatomy of the nervous, cardiovascular, respiratory, and musculoskeletal systems.			
3. Examine the physiological changes associated with pregnancy, labour, and the postpartum period.			
4. Analyze the interrelationship of physiological processes in multiple body systems.			
5. Evaluate the physiological processes of a real-word medical scenario.			

APHY 200 - Anatomy and Physiology 2

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

Credit unit(s): 4.0
Prerequisites: APHY 100
Corequisites: none
Equivalent course(s): APHY 200CE

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the structures and functions of Endocrine Glands.			
2. Describe the structures and functions of the Urinary System.			
3. Describe the structures and functions of Nerve Tissue.			
4. Describe the structures and functions of the Central Nervous System.			
5. Describe the structures and functions of the Peripheral Nervous System.			
6. Describe the structures and functions of the Digestive System.			
7. Describe the structures and functions of the General and Special Senses.			
8. Describe the structures and functions of the Reproductive System.			

BCOM 120 – Business Communications 1

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.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain the process of communication.			
2. Illustrate the importance of cultural awareness in communications.			
3. Discuss communication techniques in interpersonal and workplace situations.			
4. Compose effective sentences and paragraphs.			
5. Write routine business messages.			
6. Write negative business messages.			
7. Create formal documents using word processing applications.			
8. Explain how to establish and maintain client relationships.			
9. Use email features and electronic calendaring to manage business communication.			

BCOM 121 – Business Communications 2

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.

Credit unit(s): 4.0
Prerequisites: BCOM 120
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Conduct research for a report.			
2. Create documentation notes and bibliographies.			
3. Organize business reports.			
4. Use graphics to illustrate reports and presentations.			
5. Write proposals.			
6. Write user manuals.			
7. Write systems documentation.			
8. Deliver effective oral presentations using presentation tools.			
9. Evaluate oral presentations.			

BCOM 300 – Prof. Writing & Presentations

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Compile a list of print and visual sources for critical analysis of a business.			
2. Summarize and evaluate texts gathered in secondary research.			
3. Write a proposal.			
4. Write business correspondence to generate sources for primary research.			
5. Design a questionnaire for research purposes.			
6. Conduct interviews for primary research.			
7. Use the tools of electronic communication to produce collaborative documents.			
8. Write a formal analytical report.			
9. Use the tools of electronic communication to deliver an effective oral or multi-media presentation.			

BCOM 600 - Business Communications

You will practice written and oral communication skills that managers use on the job. You will study how to write effective letters, emails, and reports. You will plan and conduct meetings and deliver a verbal presentation.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Identify the purpose and characteristics involved in creating an effective business message.			
2. Explain the process of writing.			
3. Apply guidelines for adapting short messages to audience needs.			
4. Recognize business conventions used to organize information in emails, letters, or memos.			
5. Create letters or memos that demonstrate their knowledge of organizational patterns for writing informative messages, persuasive messages, or messages that deliver negative information in the most positive style.			
6. Compose a short report that demonstrates an appropriate organization, writing style, and documentation.			
7. Apply interpersonal communication skills to workplace scenarios.			
8. Explain how to plan and conduct a business meeting.			
9. Deliver an oral presentation.			

BIOL 100 - Human Anatomy & Physiology 1

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain the sciences of Anatomy and Physiology of the human body.			
2. Determine how the chemical levels of organization of the human body impact homeostasis.			
3. Examine the structures and functions of human cells.			
4. Describe the structures and functions of human tissues.			
5. Describe the structures and functions of the integumentary system.			
6. Examine osseous tissue, the structures and functions of the skeletal system, and articulations.			
7. Examine skeletal muscle tissue and the structures and functions of the muscular system.			
8. Describe the structures and functions of neural tissue.			
9. Examine the structures and functions of the central nervous system.			
10. Examine the structures and functions of the peripheral nervous system.			
11. Examine the structures and functions of the general and special senses.			

BIOL 101 - Human Anatomy & Physiology 2

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the structures and functions of blood.			
2. Examine the structures and functions of the cardiovascular system.			
3. Compare how the structures and functions of the lymphatic system are involved in creating innate and adaptive immunity.			
4. Compare how the structures and functions of the respiratory system influence respiratory physiology.			
5. Examine the structures and functions of the digestive system.			
6. Illustrate how the structures of the urinary system function to maintain homeostasis, including their regulatory mechanisms.			
7. Demonstrate the principles of fluids, electrolytes, and acid-base balance to disturbances in homeostasis.			
8. Describe the structures and functions of endocrine system.			
9. Examine the structures and functions of the reproductive system.			

BIOL 102 - Anatomy and Physiology 1

In the first of a two-course sequence, you will explore the human body focusing on the interaction between structure and function and the regulation of physiological functions involved in maintaining homeostasis. You will learn how the levels of organization of the body and the components of cells, tissues and organs impact form and function. You will examine the following body systems: integumentary, skeletal, muscular, nervous and special senses.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the main concepts and terminology of anatomy and physiology.			
2. Examine how basic concepts in chemistry and cell biology impact homeostasis.			
3. Describe the structures and functions of the four major tissue types.			
4. Describe the structures and functions of the integumentary system.			
5. Examine bone tissue, the structures and functions of the skeletal system and articulations.			
6. Describe skeletal muscle and the structures and functions of the skeletal muscle system.			
7. Describe the structures and functions of nervous tissue.			
8. Examine the structures and functions of the central nervous system.			
9. Examine the structures and functions of the peripheral nervous system.			
10. Describe the structures and functions of the general and special senses.			

BIOL 103 - Anatomy and Physiology 2

In the second of a two-course sequence, you will continue to explore the human body focusing on the interaction between structure and function and the regulation of physiological functions involved in maintaining homeostasis. You will examine how the levels of organization of the body and the components of cells, tissues and organs impact the form and function for the following body systems: endocrine, blood, cardiovascular, lymphatic, respiratory, digestive, urinary, fluid, electrolyte, and acid-base balance and reproductive.

Credit unit(s): 3.0
Pre and Co Requisites: BIOL 102
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the structures and functions of the endocrine system.			
2. Examine the structures and functions of blood.			
3. Examine the structures and functions of the cardiovascular system.			
4. Examine the structures and functions of the lymphatic system and immunity.			
5. Examine the structures and functions of the respiratory system.			
6. Describe the structures and functions of the digestive system.			
7. Examine the structures and functions of the urinary system, and how they impact fluid, electrolyte, and acid-base balance.			
8. Describe the structures and functions of the reproductive system.			

BLAW 281 – Business Law

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the Canadian legal system.			
2. Describe the law of torts.			
3. Describe the law of contracts.			
4. Explain various forms of business ownership.			
5. Describe special contractual relationships.			

BPRT 105 – Print Reading and Fabrication

Your studies in print reading will include: views, line types, types of drawings and basic welding symbols. You will practice basic drawing interpretation skills.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Interpret basic shop drawings.			
2. Interpret basic welding symbols.			

BPRT 106 – Draw Interpretation/Work Plan

You will interpret basic drawings and worksite documentation and develop work plans resulting from the interpretation of trade documentation.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Identify types of drawings and their applications.			
2. Explain the procedures used to interpret and extract information from drawings.			
3. Prepare trade related documentation.			
4. Organize work tasks to facilitate effective handling of work materials.			

BPRT 203 – Draw Interpretation/Work Plan

You will learn to interpret drawings and other trade documents and plan work accordingly.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Interpret complex shop drawings.			
2. Interpret drawings.			
3. Interpret trade documents.			
4. Develop work plans.			

BPRT 251 – Print Reading and Fabrication

You will learn to interpret intermediate welding symbols and shop drawings.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Interpret intermediate welding symbols.			
2. Interpret intermediate shop drawings.			
3. Use notching and mitre functions of iron worker.			
4. Use press brake.			
5. Describe weld positioners.			

BPRT 322 – Aviation Business

You will interpret complex shop drawings to determine material requirements, measurements and welding requirements. In the shop fabrication component you will use metal working equipment as part of your daily activities and perform plate or structural rolling operations.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Interpret advanced welding symbols.			
2. Interpret basic piping drawings.			
3. Determine material and weld requirements from shop drawings.			
4. Use rolls to form material.			
5. Fabricate project.			

BUS 183 – Aviation Business

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe commercial aviation in the business world.			
2. Analyze the contents of an aviation business plan.			
3. Explain profit and loss as a function of operational factors in an aviation operation.			
4. Use spreadsheet features.			

CDNS 280 – Canadian Government

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the identifying characteristics of Canada's system of parliamentary government.			
2. Analyze the effect of regionalism, social class, gender, ethnic and aboriginal issues on political party support in Canada.			
3. Examine the developments which have led to the current relationship between Quebec and the Canadian government.			
4. Analyze political socialization, and the role of pressure groups and lobbyists, the media and opinion polls.			
5. Examine our political parties, the electoral process, and the electoral system.			
6. Analyze the Canadian Constitution and the Charter of Rights and Freedoms.			
7. Examine the structure and functioning of the Executive, Parliament, and Judiciary.			
8. Explain the relationship between the bureaucracy and "the government".			

CDNS 300 - Canadian Government

You will examine the structure and function of the various arms of Canada's federal government. You will compare Canada's government to those of the United States and Great Britain and examine governmental change in Canada from colony to independent nation. Through classroom lecture, small group discussion, assigned reading and independent study and research, you will examine the Canadian Constitution and the Charter of Rights and Freedoms, and analyze the issues, processes, and dynamics of the relationship between Canadian citizens and their government.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the identifying characteristics of Canada's system of parliamentary government.			
2. Analyze the effect of regionalism, social class, gender, ethnic and indigenous issues on political party support in Canada.			
3. Examine the developments which have led to the current relationship between Quebec and the Canadian government.			
4. Analyze political socialization, and the role of pressure groups and lobbyists, the media and opinion polls.			
5. Examine our political parties, the electoral process and the electoral system.			
6. Analyze the Canadian Constitution and the Charter of Rights and Freedoms.			
7. Examine the structure and functioning of the Executive, Parliament and Judiciary.			
8. Explain the relationship between the bureaucracy and 'the government'.			

CHEM 102 - General Chemistry 1

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine fundamental qualitative and quantitative aspects of Chemistry.			
2. Examine atomic structure and concepts of mass.			
3. Characterize molecular and ionic compounds.			
4. Analyze chemical reactions using mass and stoichiometric relationships.			
5. Examine chemical reactions involving aqueous solutions.			
6. Examine matter in the gas phase.			
7. Analyze the energy and enthalpy of chemical reactions.			
8. Examine the electronic structure of atoms and ions			
9. Examine chemical bonding and the geometry of molecules.			

CHEM 103 - General Chemistry 2

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.

Credit unit(s): 3.0
Prerequisites: CHEM 102
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine matter in the solid or liquid phase.			
2. Examine solubility and properties of solutions.			
3. Analyze chemical reactions with respect to time.			
4. Analyze chemical reactions at equilibrium.			
5. Characterize acids and bases.			
6. Analyze buffer solutions and solubility equilibria.			
7. Examine thermodynamics for chemical reaction.			
8. Examine aspects of electrochemistry.			

CHEM 125 – Chemistry 1

You will gain knowledge in the identification, analysis and solving problems in the analysis of chemical compounds and reactions used in instrumentation. This course stresses the design of and applied chemical analysis used in instrumentation analyzers.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Identify steps in the chemical laboratory safety plan.			
2. Illustrate error calculations used in laboratory calculations.			
3. Explain the procedure used in naming inorganic and organic chemical compounds.			
4. Investigate stoichiometric analysis involved in chemical reactions.			
5. Identify types of chemical reactions.			
6. Determine the differences between the ideal and non-ideal gas behavior.			
7. Calculate physical differences defining solution chemistry.			
8. Examine the concepts of equilibrium chemistry.			
9. Examine the concepts of acid-base chemistry.			
10. Examine the concepts of oxidation-reduction chemistry.			

CHEM 202 - Chemistry

You will study topics that deal with the chemistry laboratory, periodic table, nomenclature, stoichiometry of chemical reactions, solution solubilities and concentration, density of matter, and humidity.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Demonstrate safe laboratory protocol.			
2. Classify periodic table elements and examine the chemical nomenclature of ionic and molecular compounds.			
3. Solve problems involving stoichiometric values in chemical reactions.			
4. Solve problems involving solubilities of gases, liquids, and solids.			
5. Solve problems involving the density of gases, liquids, and solids.			
6. Solve problems involving humidity in the calculation of condensation dew points.			

CHEM 225 – Chemistry 2

You will gain knowledge of analytical chemistry and instrumentation to study the theory and practices of chemical sampling and analysis. This course presents fundamentals and techniques of chemical laboratory .measurement.

Credit unit(s): 3.0
Prerequisites: CHEM 125
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the components of acid and base chemistry used in calibrating and using a pH analyzer.			
2. Examine the components of solution chemistry used the calibration and use of a conductivity analyzer.			
3. Identify the concepts use of the Beer Lambert Law for the spectrophotometric (ultraviolet) analysis of turbidity measurements.			
4. Explore the use of the Henderson-Hasselback equation in determining a solution pH and its application of buffer components in maintaining a constant pH value.			
5. Examine applications of oxidation-reduction chemistry used in the calibration of an oxidation-reduction potential analyzer.			
6. Illustrate the application of mass, volume of flow, density (specific gravity) and concentration measurements of liquids and gases used in the Coriolis Mass Flowmeters (densitometer).			
7. Layout the calibration and molecular chemical analysis of liquid and gaseous substances using a gas chromatograph.			
8. Identify the stoichiometric chemical reactions altering the atmospheric concentration of oxygen values using an oxygen analyzer.			
9. Illustrate the effects of water on chemical reactions using humidity analyzers.			

CHEM 301 - Chemistry

You will study topics that deal with the chemistry laboratory, structure of the atom, mole relationships, nomenclature, stoichiometry of chemical reactions, solution concentration, conductivity, pH, and gases. Laboratory exercises will supplement the lectures.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Demonstrate safe laboratory protocol.			
2. Outline the scientific process and the format for an experimental write-up.			
3. Classify periodic table elements.			
4. Examine the chemical nomenclature of ionic and molecular compounds.			
5. Solve problems involving variables in chemical calculations.			
6. Experiment with stoichiometric values in chemical reactions.			
7. Determine the conductivity of solutions based on solution concentrations.			
8. Contrast the pH of acid and base solutions.			
9. Examine the laws that govern the gaseous state of matter.			

CLTR 119 – Indigenous Cultural Awareness

You will gain an understanding of the diversity and richness of First Nations and Métis cultures, histories and current issues.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Recognize pre-contact Indigenous culture.			
2. Describe the history of Métis people.			
3. Examine the impacts of the Fur Trade Era on Indigenous people.			
4. Examine the history leading to the treaties.			
5. Examine the impacts of post-contact education.			
6. Examine cultural practices.			

CLTR 200 - Culture and Diversity

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Discuss how cultural dimensions shape the diversity of Canada.			
2. Discuss the prominent dimensions of culture in Canadian society such as tradition, familial relations, and employment.			
3. Describe the interrelationships produced when the dimensions of various cultures interact.			
4. Describe the dimensions of culture as it relates to Indigenous and immigrant populations.			
5. Discuss the correlation between culture, diversity, and innovation.			

COM 107 – Industrial Communications

You will receive instruction in basic job related interpersonal, oral, and written communication (including writing for the workplace and job search techniques).

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe communications skills for developing effective workplace and customer relationships.			
2. Use selected job search skills.			
3. Identify characteristics of good workplace writing skills.			

COM 109 – Industrial Communications

You will receive instruction in basic job-related interpersonal, oral and written communication, including writing for the workplace and customer service techniques.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply effective communication skills for the workplace.			
2. Prepare workplace documents.			
3. Discuss the role of the technician in industry.			

COM 112- Comm/Trade Documentation

You will learn to communicate effectively as a team member in an industrial environment. Your studies will include written, verbal and non-verbal communication.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Demonstrate effective communication practices.			
2. Demonstrate the procedures used to prepare and complete trade documentation.			
3. Identify job site barriers and signage requirements.			
4. Describe requirements of team members.			
5. Demonstrate appropriate means to offer and accept criticism.			

COM 170 - Professional Workplace Comm.

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine fundamentals of workplace communication.			
2. Examine elements of verbal and nonverbal communication.			
3. Examine group communication and teamwork skills.			
4. Practice conflict resolution skills.			
5. Discuss the role of digital communication and social media in the workplace.			

COM 200 - Business Communication

You will study the principles of communication and develop fundamental employability skills. You will examine ways to apply communication skills to cross-cultural situations. You will develop effective writing and research skills.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain the process of communication.			
2. Recognize the importance of cultural awareness in communications.			
3. Apply grammar rules.			
4. Compose effective sentences and paragraphs.			
5. Use the writing process to produce documents.			
6. Prepare documentation activities including citations, evaluation of sources and paraphrases.			
7. Compose a short report.			

COMM113 - Applied Communications

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.

Credit unit(s): 3.0
Prerequisites: COMM 291
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Demonstrate effective oral communication.			
2. Prepare business correspondence.			
3. Produce technical documents.			
4. Demonstrate appropriate customer relations behaviour.			
5. Employ job search techniques.			
6. Create job search documents.			

COMM 116 – Communication Skills

You will be introduced to the fundamentals of professional conduct, public relations, letter writing, interoffice communication, oral presentations, and job search skills.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Demonstrate professionalism.			
2. Use effective communication techniques.			
3. Demonstrate leadership.			
4. Conduct meetings.			
5. Deliver oral presentations.			
6. Deliver an oral presentation using PowerPoint.			
7. Write letters and memorandums.			
8. Prepare for job interviews.			

COMM 119 - Writing Skills

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply the structure of written communication			
2. Demonstrate proper use of grammar and punctuation			
3. Prepare for essay writing			
4. Complete a research essay using American Psychological Association (APA) formatting rules.			
5. Create a variety of reports/forms			
6. Develop a professional portfolio			

COMM 127 – Fundamental Communication Skills

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply job-related interpersonal communication strategies.			
2. Examine effective digital communication.			
3. Prepare job-related written communication.			
4. Use job search skills.			

COMM 185 Industrial Communications

You

Credit unit(s): .0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1.			

COMM 262 – Workplace Communication

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Demonstrate effective written communication skills.			
2. Prepare various written documents for the workplace.			
3. Demonstrate effective oral communication.			
4. Demonstrate effective interpersonal conflict resolution.			
5. Examine group communication and teamwork skills.			

COMM 289 – communications 2

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.

Credit unit(s): 3.0
Prerequisites: COMM 191 TCOM 102
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Conduct research for a technical report.			
2. Create presentation-quality technical reports.			
3. Use graphics technology to illustrate technical reports and presentations.			
4. Present technical information orally.			
5. Develop short reports.			

COMM 295 – Business and Technical Writing

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Identify elements of communication.			
2. Employ effective written Canadian English.			
3. Demonstrate effective research and documentation.			
4. Create a summary and an analysis.			
5. Employ appropriate elements of business correspondence.			
6. Create a formal technical report proposal.			

COMM 301 – Managerial Communications

You will analyze organizational communication structures and practices. You will practice your writing skills by composing various types of correspondence, including email, social media, and reports. Your public speaking skills will be strengthened by conducting interviews, facilitating group discussions and delivering a formal presentation.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Analyze the role and process of organizational communications.			
2. Distinguish the characteristics of effective organizational communications.			
3. Examine the influence of workplace diversity on organizational communications.			
4. Compose internal and external business correspondence.			
5. Organize and facilitate group discussions and meetings.			
6. Plan and conduct interviews.			
7. Create and deliver a formal proposal.			

COMM 393 – Communications 1

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use job search skills.			
2. Apply job-related oral and interpersonal communication.			
3. Apply job-related written information.			
4. Demonstrate customer service skills.			

COMM 480 – Communications

You will receive instruction in workplace interpersonal, oral, and written communication, including customer service skills and mentoring techniques.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply job-related interpersonal and oral communications.			
2. Review the principles of customer service.			
3. Prepare workplace documents.			
4. Use mentoring techniques.			

COMP 170 - Basic Computer Operation

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.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): COAP 342, COMP 182

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Work in a windows environment.			
2. Explain the basic operation of a computer.			
3. Perform file management.			
4. Use basic features of a word processor.			
5. Use the Internet to communicate and locate information.			

COMP 171 - Introduction to Microsoft Word

Your studies will introduce you to basic word processing skills such as creating, editing and formatting documents, building tables, using templates and applying styles.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): CKEY 187, COAP 196, COAP 343, COMP 120, COMP 154

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Create documents.			
2. Edit documents.			
3. Format documents.			
4. Use other word processing features.			

COMP 172 - Introduction to Microsoft Word/Excel

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.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): COAP 120, COAP 172, COAP 381, COMP 120

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Create Word documents.			
2. Edit Word documents.			
3. Format Word documents.			
4. Create a spreadsheet.			
5. Use spreadsheet features.			

COMP 173 - Introduction to MS Power Point and Web Publication

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.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): COAP 138, COAP 196, COMP 120

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Create a presentation.			
2. Modify a presentation.			
3. Deliver a presentation.			
4. Create a basic web page.			

COMP 176 - Introduction to Microsoft Access 1

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.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): CDBM 190, COAP 138, COAP 197, COAP 345, COMP 120, COMP 284

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Create a database and tables.			
2. Edit table data and table structure.			
3. Create queries to select data from tables.			
4. Design reports to present information from a database.			

COMP179 - Introductionto to Power Point

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.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): COAP 138, COMP 120, COMP 173

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Create a presentation			
2. Modify a presentation			
3. Use tables and charts in a presentation			
4. Deliver a presentation			

COSC 262 – Database Programming

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.

Credit unit(s): 4.0
Prerequisites: COMP 176
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Design a single table Access database.			
2. Design queries for a single table Access database.			
3. Design a multi-table Access database.			
4. Modify queries based on multiple tables in an Access database.			
5. Create SPSS data and output files.			
6. Analyze variables using appropriate SPSS reports.			
7. Select cases in an SPSS dataset.			
8. Develop refined datasets in SPSS.			

DRAW 100 – Technical Drawing

You will learn how to use various drawing instruments to produce drawings and sketches for parts production.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use various drawing instruments.			
2. Demonstrate orthographic drawing skills.			
3. Use dimensioning standards.			
4. Apply tolerancing standards.			
5. Construct sectional views.			
6. Construct auxiliary views.			
7. Determine coordinate data for job plans and tool path generation.			
8. Construct isometric views.			

DRFT 113 – Drafting/Blueprint Reading

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Develop working sketches.			
2. Develop working drawings from sketches.			
3. Construct parts and assembly from working drawings.			

DRFT 188 - Technical Drawing/Blueprint Read

You will learn to use various drawing instruments to produce drawings, interpret drawings and make sketches relative to understanding of industrial technical requirements.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use manual drafting instruments.			
2. Demonstrate orthographic drawing skills (third Angle Projection).			
3. Use dimensioning systems.			
4. Apply tolerances, sectional, and auxiliary views.			
5. Demonstrate isometric sketching.			
6. Locate surfaces, features, and dimensions on engineering drawing.			

DRFT 283 – Technical Draw/Blueprint Read

You will learn to use manual drafting techniques and reproduce geometric and orthographic drawings and find dimensions on orthographic drawings.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use manual drafting instruments.			
2. Demonstrate orthographic drawing skills.			
3. Use various drawing commands in CAD drafting.			
4. Use various editing commands in CAD drafting.			
5. Place dimensions on drawings.			
6. Find dimensional data on technical drawings.			
7. Apply tolerances to sectional and auxiliary views.			

EMPL 180 – Employability Skills

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply workplace writing skills.			
2. Use professional email practices.			
3. Write an incident report.			
4. Use job search skills.			
5. Describe portfolio development.			
6. Apply job interview skills.			

ENGL 100 – Critical Reading and Writing

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Practice critical writing skills.			
2. Practice critical reading skills.			
3. Create a report on a chosen topic by applying critical reading, writing, and research skills.			

ENGL101 – Critical Reading and Writing

You will develop basic skills in critical analysis and effective reading by analyzing and evaluating materials from various disciplines. You will also refine your understanding and practice of the structures of composition by writing a research paper on a topic of your choice using APA-style.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Practice critical writing skills.			
2. Practice critical reading skills.			
3. Demonstrate persuasive writing strategies in the writing process.			
4. Evaluate research publications.			
5. Create a research paper on a chosen topic by applying critical reading, writing and research skills.			
6. Modify a research paper illustrating revision and editing skills			

ETHC 100 – Professional Ethics

You will learn the appropriate approach to sensitive ethical and environmental issues.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the importance of professional ethics.			
2. Discuss ethical arguments.			
3. Identify the sociological, economic, political, and legal dimensions of ethical discourse.			
4. Analyze the theoretical basis of ethical arguments.			
5. Analyze ethical decision making models.			
6. Explore professionalism, ethics and the requirements of a regulated occupation.			

ENGL 102 – Literature Survey

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.

Credit unit(s): 3.0
Prerequisites: ENGL 101
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Demonstrate knowledge of basic mechanical writing conventions in English.			
2. Summarize arguments expressed in essay format.			
3. Implement rhetorical strategies in essay writing.			
4. Compare literary works on a similar topic.			
5. Compose a literary essay.			
6. Revise a literary essay.			

HINF 265 – Health Information Systems

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.

Credit unit(s): 3.0
Prerequisites: COMP 175, COMP 176
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine health data from various sources.			
2. Describe the structure of an existing health information system.			
3. Analyze a health information system.			
4. Create a system design.			
5. Create a system implementation plan.			
6. Evaluate responses to a request for proposal.			

HIST 100 – History of Agriculture

You will be introduced to the history of agriculture in Western Canada 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 the historical context of new markets, product segmentation and diversification.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine Western Canadian climate and geography.			
2. Discuss the agricultural practices of Indigenous people.			
3. Examine farm settlements in Western Canada.			
4. Discuss the role of agricultural movements.			
5. Identify the significant events influencing Western Canadian agriculture.			
6. Analyze the history of agricultural product segmentation.			
7. Compare past and current market trends in agricultural diversification.			
8. Explore the history of current regulatory organizations.			

HIST 280 – World History

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Analyze political, economic, gender and cultural trends during the early modern period 1450 – 1750.			
2. Relate the early world economy to the modern world economy and globalization.			
3. Summarize global transformations during the Long 19th Century.			
4. Discuss the significance of the abolition of slavery and serfdom.			
5. Compare nationalism in Latin American with imperialism in Africa.			
6. Describe the age of revolutions.			
7. Analyze contemporary democracy.			

IPSK 100 – Interpersonal Communication

You will be given opportunities 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 an increased understanding of non-verbal messages, and some problem-solving skills.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe factors that affect interpersonal communications.			
2. Describe the impact of diversity on efficacy of interpersonal communications.			
3. Distinguish appropriate communication strategies relevant to Indigenous ways of knowing and being.			
4. Use active listening skills and feedback strategies.			
5. Demonstrate effective verbal communication skills.			
6. Use non-verbal communication strategies to enhance business communications.			
7. Use problem solving and conflict resolution techniques.			

INDG 100 – Intro to Indigenous Studies

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.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe Indigenous nations of Saskatchewan.			
2. Explain how colonization has impacted Indigenous peoples.			
3. Discuss current issues and possible solutions.			

INDG 200 – Indigenous Studies 1

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explore Indigenous ways of knowing.			
2. Discuss first contacts and the development of the fur trade.			
3. Examine the history of the treaty making.			
4. Describe how the federal government marginalized First Nations peoples under the terms of the Indian Act.			
5. Describe the purposes, results and ongoing effects of the residential school system.			
6. Explain the causes and aftermaths of the Metis resistances at Red River and Batoche.			
7. Discuss the evolution of Indigenous political organizations.			
8. Discuss effects of colonization among Inuit in Canada.			
9. Discuss contemporary issues within Indigenous communities.			

INDG 201 - Indigenous Studies 2

You will focus on the contemporary issues impacting First Nations, Inuit, and Metis people in Canada. You will explore the role Indigenous peoples have played in the securing of Indigenous rights and their ongoing efforts of decolonization.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Discuss the role of the arts in contemporary Indigenous societies.			
2. Examine comprehensive land claims.			
3. Compare approaches to Indigenous self-government.			
4. Describe issues relating to Indigenous peoples and the Canadian justice system.			
5. Discuss the evolution of Aboriginal rights in Canada.			
6. Examine economic development in Indigenous communities.			
7. Explore issues of health and well-being in Indigenous communities.			
8. Discuss media representation of Indigenous peoples.			
9. Examine the experiences of Indigenous peoples in urban communities.			

INDG 600 – Indigenous Studies

You will complete the Blanket Exercise to honour the Indigenous peoples in Canada. You will study the history of the relationships between European settlers and the Indigenous peoples from initial contact to present day. You will analyze the 94 Calls to Action of the Truth and Reconciliation Commission to redress the legacy of residential schools and advance Canadian reconciliation.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Complete the Blanket Exercise to honour Indigenous peoples in Canada.			
2. Examine the history of relationships between European Settlers and Indigenous peoples.			
3. Examine the history of relationships between European Settlers and Indigenous peoples.			

JOBS 125 – Essential Job Skills

You will develop essential job skills by preparing job search documents and practicing effective interpersonal communication skills for the workplace.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Discuss effective workplace interpersonal communications.			
2. Prepare job search documents.			

LEAD 301 – Innovation and Leadership

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Define innovation and its requirements.			
2. Demonstrate the application of creativity tools and techniques.			
3. Describe how to foster creativity in problem solving.			
4. Evaluate decision-making methods.			
5. Examine the role of leaders.			
6. Explore effective change management methods and practices.			
7. Identify the importance of developing and maintaining trust among group members.			
8. Describe how to manage controversy and conflict.			
9. Evaluate the innovative nature of products, services, processes, and organizations.			

MAT 110 – Mathematics for Engineering Technologies

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.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine measurements, formulas, and functions.			
2. Practice mathematical operations with algebraic expressions.			
3. Apply principles of geometry.			
4. Analyze trigonometric functions and vectors.			
5. Examine systems of linear equations.			
6. Examine algebraic equations and functions.			
7. Analyze exponential and logarithmic functions.			

MAT 102 – Vector Algebra

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform basic vector operations.			
2. Examine Cartesian and polar two-dimensional coordinate systems.			
3. Apply principles of graphing three dimensional vectors in Cartesian, cylindrical and spherical coordinate systems.			
4. Examine spherical triangles.			
5. Apply vector operations to geometric problems.			

MAT 103 - Linear Algebra

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.

Credit unit(s): 3.0
Prerequisites: MAT 102, MAT 110
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform matrix evaluations and operations.			
2. Examine vector transformations with matrices.			
3. Solve linear equations with matrices.			
4. Examine eigenvalues and eigenvectors.			
5. Perform matrix factorizations.			

MAT 111 – Calculus for Engineering Technologies

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.

Credit unit(s): 4.0
Prerequisites: MAT 110
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the derivative through the study of slopes and limits.			
2. Calculate derivatives of functions.			
3. Use first and second derivatives to graph functions.			
4. Analyze technical problems involving rates of change and optimization.			
5. Examine the indefinite and definite integral.			
6. Calculate integrals of functions.			
7. Analyze technical problems with integration.			
8. Solve first-order differential equations.			

MAT 112 – Differential Calculus for Engineering Technologies

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.

Credit unit(s): 3.0
Prerequisites: MAT 110
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Analyze limits and continuity of functions.			
2. Examine the derivative through the study of slopes and limits.			
3. Calculate derivatives of algebraic functions.			
4. Use first and second derivatives to graph functions.			
5. Calculate derivatives of transcendental functions.			
6. Analyze technical problems involving rates of change and optimization.			

MAT 124 – Technical Mathematics 1

You will solve technical problems using concepts of arithmetic, algebra, geometry, systems of linear and non-linear equations and radical equations.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve technical problems using arithmetic.			
2. Solve technical problems using algebra.			
3. Solve technical problems using geometry.			
4. Solve technical problems using systems of linear and non-linear equations.			
5. Solve technical problems using simple radical equations.			

MAT 200 – Advanced Calc/Stats Analysis

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.

Credit unit(s): 4.0
Prerequisites: MAT 235, STAT 201
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform tests of series convergence.			
2. Analyze Taylor series expansions.			
3. Use series expansions to approximate errors in measurements.			
4. Apply estimation, testing, and curve fitting for statistical parameters.			
5. Apply statistical and matrix methods to the adjustment of survey observations.			
6. Describe complex variables, spaces, and subspaces.			
7. Solve ordinary differential equations.			
8. Solve partial differential equations.			

MAT 210 – Integral Calculus for Engineering Technologies

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.

Credit unit(s): 3.0
Prerequisites: MAT 112
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the indefinite and definite integral.			
2. Calculate integrals of functions.			
3. Analyze technical problems with integration.			
4. Calculate integrals with the use of advanced techniques.			
5. Analyze first-order differential equations.			

MAT 211 – Advanced Math for Engineering Technologies

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.

Credit unit(s): 3.0
Prerequisites: MAT 210
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the series expansions of functions.			
2. Analyze second-order differential equations.			
3. Examine the Fourier and Laplace transform.			
4. Solve differential equations with Laplace transforms.			
5. Analyze physical systems with Laplace transforms.			

MAT 223 – Calculus 1 for Electrical Eng

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.

Credit unit(s): 5.0
Prerequisites: MAT 122
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain the concepts of limit, continuity, and discontinuity.			
2. Determine the derivative of a function.			
3. Differentiate algebraic functions by rules.			
4. Use differential calculus to solve problems.			
5. Explain the concept of integration.			
6. Integrate algebraic functions by rules.			
7. Use integral calculus to solve problems.			
8. Differentiate transcendental functions by rules.			
9. Integrate transcendental functions by rules.			
10. Use calculus to solve problems.			
11. Use algebraic techniques to manipulate integrands.			
12. Perform transformations on integrands.			

MAT 232 – Calculus

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.

Credit unit(s): 3.0
Prerequisites: MAT 223
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve electronic problems using differential calculus.			
2. Solve electronic problems using integral calculus.			
3. Determine the derivatives of multivariate functions.			
4. Analyze arithmetic and geometric sequences.			
5. Perform operations using Taylor Series.			
6. Analyze wave forms using Fourier Series.			
7. Resolve expressions using Euler¿s Identities.			
8. Solve basic first-order differential equations.			
9. Solve basic second-order differential equations.			

MAT 233 – Statistics

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).

Credit unit(s): 3.0
Pre and Co Requisites: MAT 120
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use fundamental elements, ideas, and strategies of technical statistics for identifying, collecting, organizing, and presenting statistical data.			
2. Analyze averages, and standard deviation and variance measures for finding data measures of central tendency and variability of the basic kinds of data.			
3. Apply the fundamental elements, symbolism, conditions and laws of basic probability.			
4. Calculate discrete probability distributions involving binomial data having independent and dependent events.			
5. Calculate continuous and normal probability distributions to statistical data populations and samples.			
6. Apply the Central Limit Theorem to simple experimental design.			
7. Apply the Central Limit Theorem to simple experimental design.			
8. Construct a confidence interval for a population mean and proportion involving large and small samples.			
9. Construct hypothesis testing for single means and single proportions for large and small samples.			
10. Construct hypothesis testing of a single mean and difference of means for large and small samples and for a single proportion and difference of proportions for large samples.			
11. Analyze paired data using linear regression and correlation analysis.			

MAT 235 – Multivariable Calculus

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.

Credit unit(s): 4.0
Prerequisites: MAT 103, MAT 112
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform partial differentiation of functions.			
2. Solve technical problems involving application of partial differentiation.			
3. Demonstrate vector calculus operators.			
4. Integrate functions analytically and numerically.			
5. Integrate functions analytically and numerically.			
6. Demonstrate multiple integration.			

MAT 238 – Electronics Des and Transforms

You will study the solutions to first and second order differential equations using transformation methods with applications to physical electrical circuits.

Credit unit(s): 3.0
Prerequisites: MAT 232
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Formulate domain differential equation models for basic electric circuits and networks from the perspective of the traditional model.			
2. Appraise the theory and techniques of LaPlace transforms.			
3. Solve electrical differential equations using LaPlace transforms.			
4. Develop the formulation and solution of electrical systems from the perspective of modern models.			
5. Solve simple, linear differential equations numerically.			
6. Formulate Z-transforms for discrete time systems.			

MATH 104 – Applied Mathematics

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve practical problems involving arithmetic.			
2. Perform calculations with the Imperial and metric systems of measurement.			
3. Perform calculations with the Imperial and metric systems of measurement.			
4. Solve practical problems involving trade formulas.			
5. Solve practical problems involving geometry.			
6. Solve practical problems involving trigonometry.			

MATH 106 – Plumbing/Pipefitting Math

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use Whole Numbers, Fractions, Decimals, and Percents.			
2. Use Basic Algebra to Solve Trade Related Problems.			
3. Use Measurement Systems.			
4. Perform Plumbing/Pipefitting Trade Calculations.			

MATH 107 – Trade Mathematics

The course reviews basic mathematical concepts and introduces mathematical concepts that support applications in the Industrial Mechanics trade.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none

Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Use basic algebra.			
3. Perform trade calculations.			

MATH 108 – IM/Level 1 Trade Mathematics

The course reviews basic mathematical concepts and introduces mathematical concepts that support applications in the Industrial Mechanics trade.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Use basic algebra.			
3. Use basic algebra.			

MATH 109 – Mathematics

You will study basic mathematical concepts that support trade calculations.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Perform trade calculations.			

MATH 112 – Trade Math

You will solve mathematics problems within the construction industry. You will convert units of measurement using the Imperial and Metric systems. You will then apply your knowledge to solve geometric problems found in the construction industry involving perimeters, areas, and volume.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Solve geometric problems in the construction Industry.			

MATH 114 - Mathematics

You will develop the required background in algebra, geometry and trigonometry that is necessary to do basic calculations in applied areas. The course content includes algebraic operations, solution of equations, functions, probability, statistics, graphing plane geometry, trigonometry, and vectors. Problem solving will be emphasized throughout the course.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use algebraic equations, factors, ratios, and proportions to solve technical problems.			
2. Plot graphs of mathematical data.			
3. Examine basic statistics and probability.			
4. Apply the basic principles of plane geometry.			
5. Apply the basic principles of plane trigonometry.			
6. Perform basic arithmetic operations on vectors.			

MATH 115 - Calculus for Architectural Technology

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.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply powers and radicals in the study of technical problems.			
2. Examine functions analytically and graphically.			
3. Examine the concept of a derivative through the study of slopes and limits of functions.			
4. Calculate derivatives of algebraic functions.			
5. Use first and second derivatives to graph functions.			
6. Analyze technical problems using differentiation.			
7. Examine the concept of an integral through the study of anti-derivatives and the Fundamental Theorem of Calculus.			
8. Calculate integrals of algebraic functions.			
9. Analyze technical problems using integration.			

MATH 117 – Industrial Mathematics

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use whole numbers, and common and decimal fractions.			
2. Perform conversions and comparisons with fractions, decimals and percents.			
3. Perform calculations and conversions with the metric and imperial systems.			
4. Perform calculations for average, perimeter, area and volume.			
5. Solve basic problems involving common and decimal fractions.			

MATH 118 – Ironworker Mathematics

You will study basic math operations involving whole numbers, common and decimal fractions, per cents and averages as used in the trade. You will also perform Imperial and Metric conversions, calculate perimeter, area and volume of objects and solve some basic problems.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use whole numbers, and common and decimal fractions.			
2. Perform conversions and comparisons with fractions, decimals, and percent.			
3. Perform calculations and conversions with the metric and imperial systems.			
4. Perform calculations for average, perimeter, area, and volume.			
5. Solve basic problems involving common and decimal fractions.			

MATH 119 – Mathematics

You will develop the background knowledge in basic mathematics, while focusing on applications within the mechanical trades.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use appropriate units.			
2. Use basic mathematics.			
3. Use basic algebra.			
4. Calculate perimeter, area and volume.			
5. Perform trade specific calculations.			

MATH 125A – Industrial Mathematics

Mathematic skills are essential to the tradesperson. You will review and advance your skills in using whole numbers, fractions, and the metric system. You will apply the skills in calculating material requirements, weights, areas and volumes.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform arithmetic calculations using whole numbers, fractions, and decimals.			
2. Calculate areas, volumes, and weights.			
3. Calculate material requirements.			

MATH 127 – Trade Math

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Operate an electronic calculator.			
2. Perform mathematical calculations used in the construction process.			
3. Use metric and Imperial systems of weights and measure.			
4. Perform mathematical calculations used in carpentry.			

MATH 131 – Trade Mathematics

You will review basic mathematics and algebra. You will solve applied percent, ratio and proportion problems. You will perform Imperial and SI conversions, and calculate the perimeter, area, and volume of many common shapes. You will use the Pythagorean Theorem.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics and algebra to solve trade-related problems.			
2. Use basic equations to solve trade-related problems.			
3. Practice Imperial and Metric measurement conversions.			
4. Calculate perimeter, area, and volume of common and irregular shapes.			
5. Solve trade specific auto body problems.			

MATH 135 – Trade Math

You will learn the basic mathematical skills needed to function effectively in a commercial kitchen. Your studies will focus on decimals, fractions, percentages and the imperial and metric measurement systems.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use Metric and US measurement systems.			
2. Perform calculations using whole numbers, fractions and percentages.			

MATH 136 – Trade Math

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use arithmetic.			
2. Use equation fundamentals.			
3. Use metric units.			

MATH 137 – Ironworker Mathematics

You will learn to solve trade related problems through basic mathematical calculations.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Calculate lineal dimensions and weights.			
2. Perform trade related conversions and comparisons with fractions, decimals and percentages.			
3. Perform calculations and conversions with the metric and imperial systems.			
4. Calculate area, volume, and averages.			
5. Calculate the solutions to basic worksite problems.			

MATH 138 – Applied Mathematics

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use algebraic equations, factors, ratios, and proportions to solve technical problems.			
2. Use functional notation to manipulate and evaluate algebraic functions.			
3. Plot graphs of mathematical data.			
4. Apply the basic principles of plane geometry.			
5. Apply the basic principles of plane trigonometry.			
6. Perform basic arithmetic operations on vectors.			

MATH 139 - Business Mathematics

You will solve business problems involving ratios, proportions and percentages. You will use the concept of the time value of money and how it is applied to both simple and compound interest. You will calculate ordinary annuities and bonds.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply ratio, proportion, and percent to solve a variety of business problems.			
2. Determine trade discounts, cash discounts and mark-ups.			
3. Perform exchange rate calculations.			
4. Solve problems involving simple interest.			
5. Apply time value of money to problems.			
6. Solve problems involving compound interest.			
7. Examine ordinary annuities.			
8. Calculate the value of bonds.			

MATH 157 – Mathematics

Your studies will provide you with a basic mathematics background required for further study in applicative mathematics and other applied technical courses in the Industrial Instrument Technician Trade.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform basic numerical computations.			
2. Perform basic algebraic operations.			
3. Perform basic trigonometry functions.			
4. Perform basic graphing with linear equations.			
5. Perform basic operations with exponentials and logarithms.			
6. Perform quantitative physical measurement calculations.			

MATH 158 - Mathematics

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Use basic algebra and Laws of Exponents.			
3. Use the binary and hexadecimal number systems.			
4. Use Boolean algebra.			
5. Apply trigonometry and complex numbers to phasor problems.			
6. Apply Sine and Cosine graphs.			
7. Apply exponents and logarithms.			

MATH 159 – Trade Mathematics

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Use basic algebra.			
3. Use Imperial measurement system.			
4. Use metric measurement system.			
5. Calculate area and volume.			
6. Perform trade calculations.			

MATH 165 – Mathematics for Printers

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics for Graphic Arts.			
2. Use measurement systems.			

MATH 167 – Applied Mathematics 2

Building on the arithmetic and algebraic skills you developed in Math 104 – Applied Mathematics 1 – you will apply trigonometry to vector problems, work with functions, and solve various types of equations.

Credit unit(s): 3.0
Pre and Co Requisites: MATH 104
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform vector addition.			
2. Examine single variable functions.			
3. Examine linear functions.			
4. Solve systems of linear equations.			
5. Solve quadratic equations.			
6. Solve exponential and logarithmic equations.			

MATH 169 – Trade Mathematics

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use arithmetic to solve trade-related problems.			
2. Use measurement systems.			
3. Solve trade-related equations and formulas.			
4. Solve geometric problems.			

MATH 178 – Mathematics 1

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use dimensional analysis.			
2. Use algebra.			
3. Solve linear and quadratic equations.			
4. Use logarithms.			
5. Use ratio and proportion.			

MATH 179 – Trade Mathematics

You will learn the practical application of mathematics to solve shop problems. The course will focus on the solution of basic algebra, trigonometry and ratio formulas.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Convert between imperial and metric systems.			
3. Use basic algebra.			
4. Use basic geometry and trigonometry.			
5. Perform trade calculations.			

MATH 181 – Industrial Mechanics Certificate Trade Mathematics

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.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use Basic Mathematics			
2. Use the Imperial and Metric Systems of Measurement			
3. Use Algebra			
4. Use Basic Geometry and Trigonometry			
5. Perform Trade Calculations I			
6. Perform Trade Calculations II			

MATH 189 – Mathematics 1

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.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use algebra.			
2. Solve linear and quadratic equations.			
3. Solve systems of equations.			
4. Use logarithms.			
5. Use ratio and proportion.			
6. Use trigonometry to solve problems in applied sciences.			
7. Calculate derivatives.			

MATH 190 – Mathematics for Fabricator 1

You will study both the Imperial and Metric systems as you review and apply basic math skills. You will work with fractions, decimals, percentages and ratios.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use arithmetic.			
2. Use equation fundamentals.			
3. Use metric units.			

MATH 191 – Mathematics

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.

Credit unit(s): 0.0 or 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Use basic algebra.			

MATH 192 – Laboratory Mathematics

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply the rules for rounding and significant figures.			
2. Use The International System of Units (SI).			
3. Perform chemical concentration conversions.			
4. Perform acid/base calculations.			

MATH 198 – Trade Mathematics

You will review basic algebra and the Metric System of measurement and apply mathematical concepts that support applications in the trade.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Use basic algebra.			
3. Use metric measurement.			

MATH 199 - Mathematics

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.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Use metric units.			
3. Use basic algebra.			
4. Use basic geometry and trigonometry.			
5. Perform basic trade calculations.			
6. Perform advanced trade calculations.			

MATH 201 – IM/Level 2 Trade Mathematics

This course reviews the Metric system of measurement and introduces mathematical concepts that support applications in the Industrial Mechanics trade.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic algebra.			
2. Use metric units.			
3. Perform trade calculations.			

MATH 202 – Industrial Mathematics 2

You will learn to solve complex trade problems encountered in the Ironworker-Reinforcing trade.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform conversions and comparisons using percentile, rates, ratios, and proportions.			
2. Calculate angles.			
3. Apply geometric solutions to trade problems.			

MATH 203 – Welding Mathematics 2

You will make modifications to basic formulas, shapes and objects to handle realistic trade problems involving combinations of those basic objects and calculate perimeters, areas, volumes, capacities and weights of such irregular objects involving advanced ratios, proportion and percent in the imperial and metric systems of measurement.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply manipulations to basic formulas to match modifications to basic shapes and objects.			
2. Perform equivalent imperial and metric calculations and conversions involving weight-volume, weight-length, and vice-versa.			
3. Perform advanced welding-related problems involving ratios, proportions and percent.			
4. Perform advanced lineal and non-lineal problems involving irregular and odd shapes and objects.			

MATH 204 – Business Mathematics

You will build algebraic skills applicable to studies in business. You will apply ratios, proportions and percentages to business problems involving discounts and markups. You will apply rates and variations to currency exchange rate calculations. The growths of simple and compound interest will be examined and compared. The concept of time value of money will be analyzed and applied in several scenarios. You will solve business problems involving ordinary annuities and amortizations.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve business problems involving percentages, discounts, and markups.			
2. Perform currency exchange calculations.			
3. Solve business problems using simple interest.			
4. Solve problems involving compound interest.			
5. Examine the concept of time value of money.			
6. Perform calculations on ordinary annuities.			

MATH 221 – Ironworker Mathematics

You will learn the practical application of mathematics to solve shop problems. The course will focus on the solution of problems using algebra, basic trigonometry and ratio to solve advanced problems.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic algebra.			
2. Use basic geometry and trigonometry.			
3. Perform trade calculations.			

MATH 258 – Mathematics

You will learn the practical application of mathematics to solve shop problems. The course will focus on the solution of problems using algebra, basic trigonometry and ratio to solve advanced problems.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic algebra.			
2. Use basic geometry and trigonometry.			
3. Perform trade calculations.			

MATH 278 – Mathematics 2

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.

Credit unit(s): 2.0
Prerequisites: MATH 178
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use trigonometry to solve problems in applied sciences.			
2. Use limits to explore the behaviour of functions.			
3. Use derivatives to solve problems in the applied sciences.			
4. Solve systems of equations using techniques from linear algebra.			

MATH 279 – Fabricators Math

You will study the Imperial and Metric systems of measure as you review and apply basic math skills. You will study measurement applications including right triangle theorem and stretch-out length.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics skills.			
2. Apply perimeter, area and volume fundamentals.			
3. Use percent.			

MATH 280 – Mathematics for Vet Technology

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics.			
2. Use dimensional analysis to convert units to perform drug dosage calculations and to determine IV flow rates.			
3. Solve equations.			
4. Calculate dilutions.			
5. Calculate solutions.			
6. Analyze descriptive statistics in a veterinary medical environment.			
7. Interpret graphs.			

MATH 281 – Applied Mathematics

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.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic mathematics to solve industry related problems.			
2. Use basic algebra to solve industry related problems.			
3. Convert units of measurement in the metric and imperial measurement systems.			
4. Perform calculations involving finance based problems.			
5. Perform calculations involving culinary based problems.			

MATH 286 – Trade Mathematics

You will study the Metric system of measurement and mathematical concepts that support applications in the trade.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use Metric and Imperial units.			
2. Perform trade calculations.			

MATH 289 – Mathematics 2

You will focus on differential and integral calculus. You will learn differentiation of algebraic and transcendental 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.

Credit unit(s): 4.0
Pre and Co Requisites: MATH 189
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Calculate derivatives of transcendental functions.			
2. Solve problems requiring the application of derivatives.			
3. Derive integrals of algebraic functions.			
4. Calculate partial derivatives.			
5. Apply indefinite integration.			
6. Apply definite integration.			
7. Use advanced methods of integration.			

MATH 299 – Intermediate Algebra and Basic Trigonometry

You will use the principles of algebra, geometry, and trigonometry to solve basic problems in the power engineering field. You will apply these principles to practical problems involving percentages, ratio and proportion, mixtures, speeds, rates, practical problems involving simultaneous equations, and vectors.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use appropriate units.			
2. Use algebra to simplify expressions.			
3. Solve equations and systems of linear equations.			
4. Solve word problems.			
5. Calculate perimeter, area and volume.			
6. Solve basic trigonometry problems.			

MATH 300 – Trade Mathematics

You will be introduced to mathematical concepts that support applications in the industrial mechanics trade.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic geometry and trigonometry.			
2. Perform trade calculations.			

MATH 301 – Forestry Math Fundamentals

You will learn and practice the math fundamentals required for analyzing and solving forestry-related questions and problems.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform forestry calculations using whole numbers, fractions, decimals and percents.			
2. Perform calculations in forestry dealing with areas, volumes and conversions.			
3. Perform calculations involving measurements and using significant figures.			
4. Perform calculations using trigonometry and ratio - proportion techniques.			
5. Perform calculations by using algebraic techniques.			
6. Perform calculations employing exponents, square roots, and squares.			
7. Perform calculations using logarithms and compound interest.			

MATH 310 – Welding Mathematics 3

You will perform extended modifications to concepts, conversions, and calculations of complex combinations of formulas, shapes and objects as encountered in the welding trade. You will use calculation management to complete a small welding-related project involving mathematics with diagrams.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform advanced welding-related calculations involving layouts, rollouts, fitting, and loading/lift problems.			
2. Perform calculation management involving compound combinations of welding related materials.			
3. Perform calculation management involving a small project involving diagrams or partial blueprint.			

MATH 381 – Trade Mathematics

You will apply the math concepts you have learned to solve advanced problems.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic algebra to solve problems.			
2. Solve complex geometric problems.			
3. Apply the basic trigonometric functions to solve problems.			

MATH 382 – Mathematics

You will learn basic math skills, proportion, calculator use, geometry review (perimeter, area, volume), scientific and engineering notation, coefficients of expansion and contraction, right triangle theorem, interpolation of tables, and graphing.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic geometry and trigonometry.			
2. Perform trade calculations.			

MATH 386 – Mathematics

You will learn the practical application of mathematics to solve shop problems. The course will focus on the use of ratio and proportion, trigonometry application and applied algebra. Formulas will be provided in test situations.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use mathematics in machine shop applications.			
2. Use machine shop formulae.			
3. Use trigonometric principles in a variety of machine shop formulae.			

MATH 389 – Mathematics

You will study the mathematics, algebra and geometry needed to solve various aviation related mathematical and physics problems.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve basic mathematical problems.			
2. Solve algebraic equations.			
3. Solve geometric and trigonometric problems.			
4. Perform mathematical calculations using approximations, estimates, and significant figures.			
5. Examine various mental techniques used to calculate mathematical problems.			
6. Compute interpolations using aircraft performance charts.			
7. Solve various aviation related mathematical problems.			

MATH 390 – Technical Mathematics for Engineering Calculations

You will use trigonometry to solve problems involving oblique triangles and radian measures. You will solve problems involving exponential and logarithmic equations. You will apply these concepts to solve introductory problems in the fields of applied mechanics and thermodynamics.

Credit unit(s): 1.0
Pre and Co Requisites: MATH 299
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve trigonometry problems involving radian measures and oblique triangles.			
2. Solve exponential and logarithmic equations.			

MATH 392 – Math and Trigonometry

You will apply advanced mathematics and trigonometry to the fabricator trade.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use arithmetic.			
2. Use equation fundamentals.			
3. Use basic trigonometry.			

MATH 400 – Trade Mathematics

This course introduces mathematical concepts that support applications in the Industrial Mechanics trade.

Credit unit(s): 0.0
Pre and Co Requisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use basic geometry and trigonometry.			
2. Perform trade calculations.			

MATH 480 – Mathematics

You will study compressor efficiency, piston displacement, compression ratio, pressure, pneumatics (gas laws), electrical power, electricity (series and parallel circuits), gears and pulleys, hydraulics and mechanical advantage, relative density and specific gravity, and heat quantities.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Perform trade calculations.			

MATH 482 – Trade Mathematics

You will study the trigonometric functions and use them in solving application problems. You will study perimeter, area, and volume, as well as interrelationships and cfm calculations.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Review algebra problems.			
2. Use geometry to solve problems.			
3. Use trigonometric functions.			

MEAS 105 – Applied Trade Measurement

You will learn the necessary skills to calculate, convert and apply common trade measurements on the job.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain common trade measurements and their use.			
2. Use formula to calculate measurements.			
3. Apply common trade measurements.			

MICR 159 – Microbiology

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.

Credit unit(s): 1.0
Prerequisites: APHY 162
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the foundations of the science of microbiology.			
2. Examine the major principles of epidemiology and their uses in the public healthcare system.			
3. Describe the pathogenesis of infectious diseases and its effects on the immune system.			
4. Examine microbial growth and the major methods for preventing the spread of communicable diseases.			
5. Examine the major viral, bacterial, and fungal diseases of humans.			

MICR 160 – Microbiology

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.

Credit unit(s): 1.0
Prerequisites: ANAT 167, APHY 162
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the foundations of the science of microbiology.			
2. Describe health care epidemiology.			
3. Describe the methods of controlling microbial growth.			
4. Describe the major viral, bacterial & fungal diseases of humans.			

NUTR 201 - Nutrition

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply principles of good nutrition and healthy eating to the assessment of dietary intakes.			
2. Examine the role of fat in health and disease.			
3. Examine the role of carbohydrate in health and disease.			
4. Examine the role of dietary protein in health and disease.			
5. Examine the role of vitamins, water and minerals in health and disease.			
6. Examine nutritional needs throughout the lifecycle including nutrition-related oral health issues.			
7. Examine strategies to achieve and maintain a healthy body weight.			

PHYS 101 – Engineering Physics

You will study circular and simple harmonic motion. You will apply vectors and Newton's laws in linear and rotational systems. You will investigate work, power, mechanical energy, momentum, and impulse. You will study the properties of heat and temperature, and the laws of thermodynamics. This course is intended to build critical thinking and problem-solving skills.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve problems involving circular motion.			
2. Solve problems involving circular motion.			
3. Solve problems involving circular motion.			
4. Solve problems involving circular motion.			
5. Solve problems involving circular motion.			
6. Solve problems involving circular motion.			
7. Solve problems involving circular motion.			

PHYS 103 – Physics 1 for Geomatics

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.

Credit unit(s): 3.0
Prerequisites: MAT 110
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve problems involving kinematics.			
2. Apply Newton's Laws of motion.			
3. Solve problems involving work, energy, and power.			
4. Examine rotational kinematics and dynamics.			
5. Apply the Universal Law of Gravitation.			
6. Analyze heat and temperature.			

PHYS 104 -Physics for Engineering Design and Drafting Technology

You will apply vectors and Newton's laws of motion to force systems. You will study work, power and the conservation of mechanical energy. You will study momentum and collisions. You will study the properties of static and dynamic fluids, thermal energy, and heat. This course is also intended to build critical thinking and problem-solving skills.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply methods of vector addition to concurrent and non-concurrent force systems.			
2. Apply Newton's laws to dynamic and static force systems.			
3. Analyze work, power, and the conservation of mechanical energy.			
4. Examine the conservation of momentum in collisions.			
5. Solve problems involving static and dynamic fluids.			
6. Solve problems involving temperature, thermal energy and heat.			

PHYS 105 - Physics

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply calculating, documenting and graphing functions and features with computational software.			
2. Solve problems of vector addition.			
3. Solve problems involving motion.			
4. Solve problems involving work, energy, and power.			
5. Solve problems involving electric forces, potentials and fields and magnetism.			

PHYS 106 – Physics

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.

Credit unit(s): 4.0
Prerequisites: MATH 189
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe Newton's principles of motion.			
2. Solve problems involving classical mechanics and mechanical energy transfer.			
3. Explain processes which result in energy transfer and energy loss in mechanical processes.			
4. Analyze momentum and inertia in collisions.			
5. Solve problems on basic circuitry involving resistors, capacitors, and power sources.			
6. Analyze Ohm's law and response time in basic circuitry.			
7. Describe the electrical protection and safety devices in instrumentation.			
8. Examine the relationship between electricity, magnetism, and effects on charged particles.			
9. Examine magnetic field and magnetic effect of current.			
10. Characterize the functioning of basic optical components.			
11. Characterize the properties of light based on wave optics and interference.			
12. Examine diffraction, refraction, and interference effects of optical components.			

PHYS 107 - Instrumentation Physics

You will study rotational motion, fluid mechanics, temperature, heat and thermal properties of matter.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): PHYS 120

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine rotational motion.			
2. Use knowledge of fluids at rest to analyze various situations.			
3. Solve problems involving fluids in motion.			
4. Solve problems involving heat and temperature.			
5. Examine ideal gas properties in static and dynamic conditions.			
6. Apply the principles of thermodynamics.			

PHYS 122 – Physics

You will study the principles of fluid mechanics, thermometry and calorimetry, vector addition, work, power, energy and simple machines in this course.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Calculate the pressures of static and moving liquids.			
2. Examine the expansion and contraction properties of materials with temperature.			
3. Compare how matter stores heat with temperature changes.			
4. Classify three forms of heat transfer.			
5. Demonstrate four methods of vector addition.			
6. Differentiate between work, power and energy.			
7. Compare the mechanical advantage of simple machines.			

PHYS 185 - Physics

You will study the principles of basic physics with emphasis on various aviation topics including motion and energy.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine basic physics concepts.			
2. Examine physical properties of matter.			
3. Discuss physical properties of the atmosphere.			
4. Examine the gas laws.			
5. Discuss electrical energy concepts.			
6. Examine the concepts of dynamics.			
7. Examine basic aerodynamic concepts.			

PHYS 200 – Physics 2 for Geomatics

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.

Credit unit(s): 3.0
Prerequisites: PHYS 103
Corequisites: GEOM 202
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve problems involving electricity and magnetism.			
2. Examine simple harmonic motion.			
3. Apply the principles of waves.			
4. Examine the principles of light.			
5. Analyze light optics.			
6. Solve problems involving special relativity.			

PHYS 227 - Physics

You will investigate the physical properties of structural materials, including statics, moment of inertia and strength of materials. You will observe how engineers use these properties to select beams and columns from a table.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Use vectors and free-body-diagrams to resolve concurrent force systems.			
2. Solve equilibrium problems involving trusses.			
3. Solve load tracing problems in frame buildings.			
4. Compare moment of inertia of different composite areas.			
5. Analyze stress and strain in materials.			
6. Examine tables used by engineers to select structural members.			

PHYS 228 – Physics: Light, Heath and Sound

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve problems involving motion, force, work, energy, and power.			
2. Solve problems involving light, illumination, reflection, and refraction.			
3. Solve technical problems requiring the application of fundamental electrical theory.			
4. Solve heat measurement and transfer problems.			
5. Solve problems involving the physical relationships in elementary hydrostatics and fluid dynamics.			
6. Solve problems involving vibration, waves, and sound.			

PR 281 – Community Public Relations

You will learn the basics of 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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Discuss the importance of creating a positive public image.			
2. Discuss specialization within the public relations field.			
3. Describe the workings of the mass media.			
4. Prepare a public relations campaign.			
5. Write for publicity.			
6. Design in-house publications.			
7. Discuss the use of social media for marketing.			

PRNT 100 – Blueprint Reading

You will study reading and interpreting blueprints.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Interpret features in all views.			
2. Interpret features in all views.			
3. Interpret features in all views.			
4. Interpret features in all views.			

PRNT 385 – Tech Drawing/Blueprint Reading

Interpret features in all views.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Interpret features in all views.			
2. Interpret features in all views.			
3. Interpret features in all views.			
4. Interpret features in all views.			
5. Interpret features in all views.			
6. Interpret features in all views.			

PSYC 101 – Introduction to Psychology

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe Psychology as a Science.			
2. Explain the Processes of Sensation and Perception.			
3. Discuss the Concepts of Learning.			
4. Examine the Concepts of Memory.			
5. Describe the Concepts of Consciousness and Cognition.			
6. Describe the Stages of Human Development.			
7. Describe Motivation and Emotion.			
8. Examine the Relationship Between Health and Stress.			
9. Discuss Social Psychology.			
10. Describe Personality Theories and Intelligence.			
11. Discuss Psychological Disorders.			

PSYC 102 – Introduction to Psychology 1

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe psychology as a science.			
2. Examine the stages of human development.			
3. Explain perspectives on personality.			
4. Examine social psychology and the power of social influence.			
5. Practice managing stress through understanding the relationship between stress, health, and coping.			
6. Analyze the components of various psychological disorders.			
7. Evaluate psychological and biological treatments.			

PSYC 103 – Introduction to Psychology 2

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.

Credit unit(s): 3.0
Pre and Co Requisites: PSYC 102
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe psychology as a science.			
2. Examine the biological and neurological factors underlying behaviour.			
3. Explain the processes of sensation and perception.			
4. Analyze the concepts of consciousness.			
5. Examine the different types of learning.			
6. Apply the concepts of memory to real-world applications.			
7. Analyze the components of cognition (thinking and reasoning) and language.			
8. Examine the concepts of intelligence and intelligence testing.			
9. Examine motivation and emotion theories.			

PSYC 104 – Psychology Health/Wellness Management

In this course you will be introduced to theories of stress and holistic concepts of wellness honouring different cultural perspectives. You will use the Medicine Wheel as a tool to examine the influence of stress on physical, mental, spiritual, and emotional health. Finally, you will create a personal stress management plan with a goal of respecting the four elements of health.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Compare theories of stress and holistic concepts of wellness honouring different cultural perspectives.			
2. Examine the influence of stress on physical, mental, spiritual, and emotional health using the Medicine Wheel.			
3. Respect your personal stress management plan.			

PSYC 160 – Psychology 1

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe psychology as a science			
2. Describe the processes of sensation and perception			
3. Explain the states of consciousness			
4. Examine the concept of learning in psychology			
5. Describe the concept of memory			
6. Describe the concept of intelligence			
7. Explain motivation and emotion			
8. Describe personality theories and assessment			
9. Examine the relationship between health and stress			

PHYS 280 – Psychology of Grief

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Review the concepts of death and dying			
2. Explain the dynamics of grief			
3. Discuss special instances of grieving			
4. Discuss the emotional and psychological needs of the person making the arrangements and the bereaved			
5. Develop attitudes of empathy and compassion appropriate to grieving clients			
6. Practice communication skills appropriate to grieving clients			
7. Formulate a self care plan			

PSYN 309

You

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1.			

QM 220 -

You

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1.			

SCI 108 – Plumbing/Pipefitting Science

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.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the Structure and Properties of Matter.			
2. Calculate Thermal Expansion.			
3. Discuss Chemical Reactions.			
4. Apply Basic Principles of Thermodynamics.			
5. Solve Problems Involving Simple Machines.			

SEM 101 – Technology Seminars

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.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Develop study and time management skills.			
2. Recognize diversity in the workplace.			
3. Recognize principles of sustainability to work.			
4. Discuss professional ethics, responsibility, and accountability.			
5. Discuss the impact of technology on society.			
6. Describe workplace safety procedures.			

SOCI 100 – Introduction to Sociology

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine How to Practice Sociology.			
2. Examine the Importance of Culture and Socialization.			
3. Examine Social Inequality in Canada.			
4. Discuss Mass Media and the Dualism of Sex and Gender.			
5. Examine Race, Ethnicity, Social Control and Deviance.			
6. Discuss Collective Behaviour, Social Movements and Social Change.			

SOCI 101 - Cultural/Indigenous Aware in HC

You will be introduced to the sociological imagination. You will discuss the relationship between culture, colonization, and land. The sociology of science and technology will be explained. You will learn to recognize forms of oppression, diversity, and inclusion. Next you will explore the need for reconciliation and decolonization. Finally, you will develop a personal awareness plan and social action plan.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the sociological imagination.			
2. Discuss the relationship between culture, colonization, and land.			
3. Explain the sociology of science and technology.			
4. Recognize forms of oppression, diversity, and inclusion.			
5. Explore the need for reconciliation and decolonization.			
6. Develop a personal awareness and social action plan.			

SOCI 160 – Foundations of Sociology

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine how to practice sociology.			
2. Examine the importance of culture, socialization, and the family.			
3. Examine social inequality in Canada, as well as the notions of social control and deviance.			
4. Discuss mass media and the dualism of sex and gender.			
5. Examine race and ethnicity.			
6. Discuss collective behavior, social movements, social change, and globalization.			

SOCI 170 – Sociology

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the basic elements of sociology			
2. Describe the process and agents of socialization.			
3. Describe the concepts of status and role as they relate to social structure.			
4. Define deviance from the sociological perspectives.			
5. Examine the concept of social stratification and its impact on Canadian society.			
6. Discuss social change and the reasons why social change occurs			
7. Describe how communities are structured and organized			
8. Describe local area planning and development			

SOCI 171 – Culture and Diversity in Canadian Culture

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine the concepts of diversity and identity in the context of Canadian society.			
2. Examine the concepts of oppression, inequality, and race.			
3. Examine the roles of multiculturalism, religion, and gender in Canadian society.			
4. Discuss the historical and contemporary challenges of Indigenous peoples.			
5. Examine immigration to Canada.			
6. Examine ways of practicing diversity competency on personal and professional levels.			

SOCI 200 – Culture & Diversity in Health Science

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain the sociological perspective.			
2. Discuss the cultural diversity of Canadian society and its social problems.			
3. Describe the Canadian healthcare system.			
4. Examine inequalities and health care.			
5. Discuss cultural safety in nursing.			
6. Analyze health practices using cultural safety.			

SOCI 201 – Culture/Diversity/Health Science

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.

Credit unit(s): 3.0
Prerequisites: SOCI 160
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain the sociological perspective.			
2. Discuss the cultural diversity of Canadian society and the need for reconciliation.			
3. Describe the Canadian health care system.			
4. Examine inequalities and health care.			
5. Discuss cultural safety in nursing.			
6. Analyze health practices using cultural safety.			

SOCI 300 – Culture and Diversity in Canadian Society

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explore the concepts of diversity, oppression, and privilege in the context of Canadian society.			
2. Analyze social inequalities in Canada.			
3. Assess the roles of religion, sex, and gender in Canadian society.			
4. Explain the historical and contemporary experiences of Indigenous populations.			
5. Analyze immigration and multiculturalism in Canada.			
6. Evaluate ways of practicing diversity competency on personal and professional levels.			

STAT 100 – Introductory Statistics

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Calculate descriptive statistics.			
2. Calculate probabilities.			
3. Examine probability distributions.			
4. Calculate confidence intervals.			
5. Conduct hypothesis testing.			
6. Use non-parametric data in hypothesis testing.			
7. Conduct linear regression analysis.			

STAT 101 – Introductory Statistics and Computer Applications

You will be introduced to basic statistical methods and the use of computers to solve statistical and related problems. You will learn about statistical topics related to central limit theorem and associated distribution functions, confidence intervals, regression and correlation analysis. You will learn the use of calculators, and spreadsheets to calculate statistical values.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply the principles of introductory statistics in a scientific environment.			
2. Apply basic statistics and central limit theorem.			
3. Calculate confidence intervals for means.			
4. Apply normal and t distributions to problems.			
5. Interpret correlation using a linear regression technique.			
6. Use a calculator to perform one variable and two variable statistical calculations.			
7. Use Excel to perform one variable statistical calculation.			
8. Use Excel to perform two variable statistical calculations.			
9. Prepare a graphical representation of data using Excel.			

STAT 120 – Business Statistics

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.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Discuss statistical terminology and procedures.			
2. Apply statistical methods for organizing and presenting data.			
3. Calculate measures of central tendency.			
4. Calculate measures of dispersion.			
5. Examine basic probability.			
6. Examine probability distributions of random variables.			
7. Examine the normal probability distribution.			
8. Apply the Central Limit Theorem to business and financial problems.			
9. Apply confidence intervals to business and financial problems.			
10. Apply tests of hypothesis to business and financial problems.			
11. Analyze paired statistical data using simple linear regression.			

STAT 181 – Intro Stats & Computer Appl 1

You will be introduced to elementary probability, random variables and their distributions, frequency distributions, measures of location, variability and position, sampling theory, and several basic statistical methods that apply to bioscience and chemical technology problems. This introduction will also include using spreadsheets to assist in learning the statistical concepts.

Credit unit(s): 3.0
Prerequisites: MATH 178
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply the principles of introductory statistics in a scientific environment.			
2. Apply basic statistics on populations and probability distributions related to bioscience and chemical technology.			
3. Apply random sampling techniques to general science and engineering studies.			
4. Apply distributions based on samples.			
5. Use regression and correlation analysis.			
6. Use Excel to perform statistical computations.			

STAT 200 – Statistics for Technology

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

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Define statistical terminology and procedures.			
2. Apply measures of central tendency to technical problems.			
3. Apply measures of dispersion and the Central Limit Theorem to descriptive statistics.			
4. Examine basic probability.			
5. Analyze paired statistical data using simple linear regression.			

STAT 201 – Statistics for Engineering Technology

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Define statistical terminology and procedures.			
2. Apply measures of central tendency to technical problems.			
3. Apply measures of dispersion and the Central Limit Theorem to descriptive statistics.			
4. Examine basic probability.			
5. Examine probability distributions of random variables.			
6. Apply the Normal Probability Distribution and the Central Limit Theorem to inferential statistics.			
7. Apply confidence intervals and tests of hypothesis to technical problems.			
8. Analyze paired statistical data using simple linear regression.			

STAT 202 – Introductory Statistics

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Calculate descriptive statistics.			
2. Calculate probabilities.			
3. Examine probability distributions.			
4. Calculate confidence intervals.			
5. Conduct hypothesis testing.			
6. Use non-parametric data in hypothesis testing.			
7. Conduct linear regression analysis.			

STAT 260 – Statistics for Health Sciences

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.

Credit unit(s): 4.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Calculate descriptive statistics.			
2. Calculate probabilities.			
3. Examine probability distributions.			
4. Calculate confidence intervals.			
5. Conduct hypothesis testing.			
6. Use non-parametric data in hypothesis testing.			
7. Conduct linear regression analysis.			

STAT 281 – Stat/Computer Applications

You will be introduced to hypothesis testing, analysis of variance, experimental design, non-parametric tests, and the application of spreadsheets to statistical analysis.

Credit unit(s): 4.0
Prerequisites: STAT 101
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine probability and independence of statistical data.			
2. Apply the calculation and interpretation of Z scores to the solution of chemical technology problems.			
3. Apply the F distribution and the chi-square distribution to problems in chemical technology.			
4. Calculate the confidence interval for variance.			
5. Apply hypothesis testing to problem solving in technology areas.			
6. Apply the concepts and techniques of quality control.			
7. Use the techniques of experimental design.			
8. Use Excel for application of advanced statistical analysis.			
9. Apply non-parametric methods to the general science areas.			

STAT 285 – Introductory Statistics

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.

Credit unit(s): 2.0
Prerequisites: COMP 172
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply the principles of descriptive statistics in a veterinary medical environment.			
2. Apply basic statistics on population and probability distributions related to veterinary technology.			
3. Use linear regression analysis.			
4. Use computer spreadsheets to perform statistical computations.			

STAT 286 – Statistics and Risk Analysis

You will utilize statistical concepts including confidence intervals, hypothesis testing, regression and correlation analysis, and categorical data analysis. Advanced topics of analysis of variance and non-parametric tests will also be studied. You will utilize statistical programs and spreadsheets in the study of statistical applications.

Credit unit(s): 3.0
Prerequisites: STAT 181, MATH 278
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply statistical techniques to advanced problem solving.			
2. Apply hypothesis testing to problem solving in technological fields.			
3. Apply analysis of variance in problem solving in technological fields.			
4. Apply non-parametric methods in a general science setting.			
5. Use Excel to perform advanced statistical computations.			

STAT 300 – Statistics and Risk Analysis

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply fundamental elements for describing and displaying data.			
2. Analyze averages for central and dispersion tendencies.			
3. Apply basic probability laws.			
4. Calculate discrete probability of binomial data.			
5. Calculate continuous probability of normal data.			
6. Apply the Central Limit Theorem.			
7. Construct probability sampling distributions.			
8. Construct estimation intervals for mean and proportion.			
9. Construct hypothesis of testing for single mean and proportion.			
10. Construct hypothesis of testing for difference of means and proportions.			
11. Analyze paired data using linear regression and correlation analysis.			
12. Explore elements of risk management in the construction industry.			
13. Examine statistical methods used for risk assessments in the construction industry.			

SUPP 1803 -

You

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1.			

SUPP 1804 -

You

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1.			

TCOM 102 – Workplace Communications

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Examine fundamentals of workplace communication.			
2. Discuss conflict resolution techniques.			
3. Apply job-related interpersonal and oral communication strategies.			
4. Apply workplace writing skills.			
5. Use job search skills.			

TCOM 103 – Technical Communications

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.

Credit unit(s): 3.0
Pre and Co Requisites: TCOM 102 COM 170
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Conduct research for a technical report.			
2. Use correct grammar and technical style.			
3. Create technical reports.			
4. Conduct meetings.			
5. Present technical information.			

TCOM 104 – Applied Research in Technology 2

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.

Credit unit(s): 2.0
Pre and Co Requisites: TCOM 103 ENGL 101
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Develop a technical proposal.			
2. Apply advanced research skills.			
3. Describe the technical problem-solving process.			
4. Employ the problem-solving process in an applied research project.			
5. Present research findings.			

TCOM 105 – Communications for Technicians

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain the communications model.			
2. Apply job-related communication strategies.			
3. Produce job-related written communication.			
4. Practice teamwork and presentation skills.			
5. Practice job search skills.			

TCOM 106 – Communications

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.

Credit unit(s): 2.0
Prerequisites: TCOM 105
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply basic research skills.			
2. Create workplace documents.			
3. Explain how to establish and maintain effective client relations.			
4. Conduct meetings.			
5. Deliver short technical presentations.			

TCOM 109 – Tech Communications for Trades

You will develop practical shop floor communication skills. You will have the opportunity to analyze and practice technical writing.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Solve common grammatical errors to meet technical writing requirements.			
2. Write shop documentation.			
3. Demonstrate knowledge of effective workplace communications.			

TCOM 110 – Workplace Communications

You will examine the employability skills required in the workplace. You will discuss the communication process, and practice effective interpersonal communication techniques. You will use workplace writing and job search skills.

Credit unit(s): 1.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Apply job-related interpersonal and oral communication strategies.			
2. Apply workplace writing skills.			
3. Use job search skills.			

TCOM 111 – Technical Communication

You will develop technical research, writing, and presentation skills. This course will establish understanding and appropriate application of scientific and technical writing standards (e.g.: IEEE Citation Reference, IEEE Editorial Style Manual). You will examine and produce a variety of technical documents.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Conduct research for technical documents.			
2. Use correct grammar and technical style.			
3. Create technical documents.			
4. Present technical information.			

TCOM 140 – Basic Communications for Technicians

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.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain communication theory.			
2. Discuss teamwork.			
3. Demonstrate effective three-way communication protocol.			
4. Develop effective writing skills.			
5. Conduct meetings.			
6. Create workplace documents.			

TCOM 190 – Technical Communications

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.

Credit unit(s): 3.0
Pre and Co Requisites: TCOM 102
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Identify documentation types required in the workplace.			
2. Conduct situational analyses.			
3. Plan documentation.			
4. Draft technical documentation.			
5. Perform revisions and editing of documentation.			
6. Design technical documentation and reports			

TCOM 300 – Technical Communications

Your studies will focus on the basic skills required of the instrument mechanic in order to communicate effectively. You will examine the communication process, the human relations techniques, and the technical writing and speaking skills required in the workplace.

Credit unit(s): 0.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain the process of communication.			
2. Prepare industry documents.			
3. Prepare written instructions to plan and organize jobs.			
4. Present an oral report.			

TCOM 601 – Technical Communications

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Conduct research for a technical report.			
2. Prepare correct grammar and technical style.			
3. Create technical reports.			
4. Conduct meetings.			
5. Present technical information.			

TCOM 600 – Business Technology Communications

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.

Credit unit(s): 3.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Write effective communication from template documents.			
2. Create long form documents using word processing software.			
3. Produce a workflow diagram in Visio.			
4. Create effective reports and dashboards with Excel.			
5. Integrate communication tools into an effective presentation.			
6. Prepare a Request for Proposal document using a standard process.			

THER 182 – Thermodynamics and Mechanics

You will receive an introduction to the field of thermodynamics. You will learn the quantities, units and principles involved in elementary thermodynamics. You will learn the concepts of basic mechanics.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Explain the basic principles of thermodynamics.			
2. Explain the thermodynamics of steam.			
3. Perform basic thermodynamic calculations.			
4. Define the terms used in basic mechanics.			
5. Discuss levers, pulleys, and inclined planes.			
6. Identify applications of simple machines.			

THER 183 – Thermodynamics and Mechanics

You will receive an introduction to the field of mechanics. You will learn the quantities, units and principles involved in statics and dynamics.

Credit unit(s): 2.0
Prerequisites: none
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome **Competent:** I can apply this outcome without direction or supervision. **Learning:** I am still learning skills and knowledge to apply this outcome. **None:** I have no knowledge or experience related to this outcome.	**Competent**	**Learning**	**None**
1. Describe the quantities, units and principles of forces in equilibrium.			
2. Perform calculations relating to the transmission of force and power by simple machines.			
3. Perform calculations relating to force, pressure, work, power, and energy.			
4. Solve basic problems involving friction on horizontal surfaces.			
5. Solve problems involving strength of materials.			
6. Solve problems involving scalar and vector quantities.			
7. Solve problems involving one-dimensional motion.			