# Arts & Sciences (A&S)

Communications, Social Sciences, Mathematics, and Sciences

## PLAR Candidate Guide

Prior Learning Assessment and Recognition (PLAR)



**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

Courses offered by the Department of Arts & Sciences vary from year to year. Consult with the Arts and Sciences program head or the PLAR contact person listed in Section E of this guide to discuss whether the course of interest is currently offered.

**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 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:
☐ A&S-specific PLAR information in thisguide

☐ 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 600 | Business Mathematics and Data Analytics |
| APHY 100 | Anatomy and Physiology 1 |
| 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 |
| ASRT 180 | Assertiveness Training |
| BCOM 100 | Business Communications 1 |
| BCOM 102 | Business Communications 2 |
| BCOM 105 | Business Communications |
| 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 |
| 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 282 | Nuclear Chemistry |

| | |
|---|---|
| CHEM 301 | Chemistry |
| CLTR 100 | Diversity |
| CLTR 119 | Indigenous Cultural Awareness |
| CLTR 200 | Culture and Diversity |
| COAP 172 | Computer Applications |
| COM 104 | Teamwork and Collaboration |
| COM 109 | Industrial Communications |
| COM 200 | Business Communications |
| COMM 113 | Applied Communications |
| COMM 127 | Fundamental Communication Skills |
| COMM 197 | Helping Skills |
| COMM 262 | Workplace Communication |
| COMM 289 | Communications 2 |
| COMM 291 | Interpersonal Communication |
| COMM 295 | Business and Technical Writing |
| COMM 393 | Communications 1 |
| COMP 170 | Basic Computer Operation |
| COMP 171 | Introduction to Microsoft Word |
| COMP 172 | Introduction to Microsoft Word/Excel |
| COMP 174 | Intro to Microsoft Excel 1 |
| COMP 175 | Introduction to Microsoft Excel 2 |
| COMP 176 | Introduction to Microsoft Access 1 |
| COSC 262 | Database Programming |
| DRAW 100 | Technical Drawing |
| DRFT 183 | Drafting and Blueprint Reading |
| DRFT 188 | Technical Drawing/Blueprint Read |
| DRFT 290 | Basic Drafting |
| EMPL 180 | Employability Skills |
| ENGL 100 | Critical Reading and Writing |
| ENGL 101 | Critical Reading and Writing |
| ENGL 102 | Literature Survey |

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|---|---|
| ETHC 100 | Professional Ethics |
| GRPH 181 | Graphics |
| HINF 265 | Health Information Systems |
| HIST 100 | History of Agriculture |
| HIST 280 | World History |
| 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 |
| MAT 110 | Mathematics for Engineering Technologies |
| MAT 111 | Calculus for Engineering Technologies |
| MAT 112 | Differential Calculus for Engineering Technologies |
| MAT 124 | Technical Mathematics 1 |
| MAT 210 | Integral Calculus for Engineering Technologies |
| MAT 211 | Advanced Math for Engineering Technologies |
| MATH 104 | Applied Mathematics |
| MATH 107 | Trade Mathematics |
| MATH 109 | Mathematics |
| MATH 112 | Trade Math |
| MATH 114 | Mathematics |
| MATH 115 | Calculus for Architectural Technology |
| MATH 118 | Ironworker Mathematics |
| MATH 127 | Trade Math |
| MATH 130 | Industrial Mathematics |
| MATH 136 | Trade Math |
| MATH 139 | Business Mathematics |
| MATH 157 | Mathematics |
| MATH 158 | Mathematics |
| MATH 167 | Applied Mathematics 2 |
| MATH 168 | Introduction to Math for Health Sciences |

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|---|---|
| MATH 169 | Trade Mathematics |
| MATH 171 | Math of Basic Elect Principles |
| 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 199 | Mathematics |
| MATH 204 | Business Mathematics |
| MATH 221 | Ironworker Mathematics |
| MATH 258 | Mathematics |
| MATH 279 | Fabricators Math |
| MATH 280 | Mathematics for Vet Technology |
| MATH 289 | Mathematics 2 |
| MATH 299 | Intermediate Algebra and Basic Trigonometry |
| MATH 389 | Mathematics |
| NUTR 201 | Nutrition |
| PHYS 101 | Engineering Physics |
| 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 227 | Physics |
| PHYS 228 | Physics: Light, Heat and Sound |
| PR 281 | Community Public Relations |
| PRNT 100 | Blueprint Reading |
| PRNT 106 | Hand Drafting |
| PRNT 107 | Drawing Interpre./Weld Symbols |
| PRNT 108 | Intro to Computer Aided Design |

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|---|---|
| PSYC 102 | Introduction to Psychology 1 |
| PSYC 103 | Introduction to Psychology 2 |
| PSYC 104 | Phsycology Health/Wellness Management |
| SOCI 101 | Cultural/Indig Aware in HC |
| SOCI 171 | Culture and Diversity in Canadian Culture |
| SOCI 201 | Culture/Diversity/Hlth Science |
| SOCI 202 | Sport in Society |
| 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 260 | Statistics for Health Sciences |
| STAT 281 | Stat/Computer Applications |
| STAT 286 | Statistics/Computer Appl 2 |
| STAT 300 | Statistics and Risk Analysis |
| TCOM 102 | Workplace Communications |
| TCOM 103 | Technical Communications |
| TCOM 104 | Applied Research in Technology 2 |
| TCOM 105 | Communications for Technicians |
| TCOM 109 | Tech Communications for Trades |
| TCOM 110 | Workplace Communications |
| TCOM 111 | Technical Communication |
| TCOM 190 | Technical Communications |
| TCOM 291 | Career Path Search |
| TCOM 601 | Technical Communications |
| TCOM 600 | Business Technology Communications |
| THER 182 | Thermodynamics |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** APHY 162

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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):** APHY 162, APHY 189, NURS 111

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**ASRT 180 - Assertiveness Training**

You will focus on the cognitive and behavioural aspects of assertiveness. You will examine how you approach conflict. You will also discuss and practice specific techniques for successful conflict management.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe conflict and conflict resolution styles. | | | |
| 2. Demonstrate assertive behaviour. | | | |
| 3. Describe how thinking processes and assertiveness are related. | | | |
| 4. Describe the use of behavioral rehearsal procedure in assertiveness training. | | | |

**BCOM 100 - Business Communications 1**

You will apply grammatical rules and principles in preparation for writing routine business correspondence.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Write complete sentences. | | | |
| 2. Write sentences demonstrating the use of nouns. | | | |
| 3. Write sentences using capitalization, abbreviations and numbers. | | | |
| 4. Write sentences using pronouns and prepositions. | | | |
| 5. Write sentences using verbs. | | | |
| 6. Write sentences using adjectives and adverbs. | | | |

**BCOM 102 - Business Communications 2**

You will continue to develop effective business writing skills. You will write routine business correspondence and apply proofreading and editing skills.

**Credit unit(s):** 3.0
**Prerequisites:** BCOM 100
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Write compound and complex sentences using commas. | | | |
| 2. Write sentences using colons and semicolons. | | | |
| 3. Use business writing techniques to achieve business tone, style, and clarity. | | | |
| 4. Prepare routine business emails. | | | |
| 5. Compose routine letters. | | | |

**BCOM 105 - Business Communications**

You will develop fundamental employability skills through the study of the principles of communication and active listening techniques. The course content includes the development of effective writing skills and formatting. You will apply the principles and skills by writing business messages for positive, negative and persuasive purposes. You will examine ways to apply communication skills to cross-cultural and Indigenous situations. You will learn to apply effective presentation skills when delivering oral presentations. You will write business reports.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Use the communication process. | | | |
| 2. Write grammatically correct sentences and paragraphs. | | | |
| 3. Use research information. | | | |
| 4. Apply business writing principles. | | | |
| 5. Explain active listening techniques. | | | |
| 6. Discuss the importance of Indigenous and intercultural awareness in communications. | | | |
| 7. Use presentation skills. | | | |
| 8. Write business reports. | | | |

**BCOM 120 – Business Communications 1**

You will develop fundamental business communication skills. You will demonstrate the importance of Indigenous and intercultural awareness, teamwork, client relationships. You will develop writing skills, compose effective business messages, and use electronic applications to create documents and manage business communication.

**Credit unit(s):** 4.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** BCOM 104, COMM 141, TCOM 102

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Explain the importance of effective business communication. | | | |
| 2. Demonstrate the value of Indigenous and intercultural awareness in communication. | | | |
| 3. Examine the benefits of teamwork in the workplace. | | | |
| 4. Compose grammatically correct sentences and paragraphs. | | | |
| 5. Write routine business messages. | | | |
| 6. Write negative business messages. | | | |
| 7. Compose formal documents using word processing tools. | | | |
| 8. Explain how to cultivate client relationships. | | | |
| 9. Use electronic applications to manage business communication. | | | |

**BCOM 121 – Business Communications 2**

You will develop effective business writing and technical communication skills. You will conduct collaborative research and create a technical report, using an appropriate formatting and citation style. In addition, you will deliver a live presentation of your final technical document.

**Credit unit(s):** 4.0
**Prerequisites:** BCOM 120
**Corequisites:** none
**Equivalent course(s):** COMM 149

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Conduct technical, peer-reviewed research. | | | |
| 2. Create documentation notes and bibliographies. | | | |
| 3. Organize technical documents. | | | |
| 4. Select appropriate graphics and illustrations for technical documents and presentations. | | | |
| 5. Write a problem statement for a technical report. | | | |
| 6. Create a user manual. | | | |
| 7. Construct a formal technical report. | | | |
| 8. Deliver a live presentation. | | | |
| 9. Practice effective collaboration. | | | |

**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:** Bridging courses
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 in business. Your studies will include how to write effective letters, emails, and reports. You will practice planning and conducting meetings and deliver an oral presentation. The significance of Indigenous and intercultural communication will also be explored.

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

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Identify the characteristics of effective business messages. | | | |
| 2. Compose effective business documents. | | | |
| 3. Examine the significance of Indigenous and intercultural communication. | | | |
| 4. Demonstrate interpersonal communication skills in workplace scenarios. | | | |
| 5. Conduct business meetings in cultural contexts. | | | |
| 6. Compose short reports. | | | |
| 7. Conduct oral presentations. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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:** BIOL 100
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** BIOL 100

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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
**Prerequisites:** BIOL 102
**Corequisites:** none
**Equivalent course(s):** BIOL 101

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 282 - Nuclear Chemistry**

You will be introduced to the fundamental concepts of nuclear chemistry. Your studies will include: radioactivity, rates of decay, nuclear reactions, radioactive isotopes, radiation measurement, radiation units and safety, the biological effects of radiation, and the use of radiation detection devices in the laboratory.

**Credit unit(s):** 2.0
**Prerequisites:** CHEM 178, MATH 189
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe structure and stability of the atomic nucleus. | | | |
| 2. Summarize radioactivity and nuclear energy. | | | |
| 3. Describe different radiation units. | | | |
| 4. Describe nuclear safety regulations and their implementation in the workplace. | | | |
| 5. Demonstrate the use of radiation detection and detector devices. | | | |
| 6. Describe various sources of ionizing radiation and particle generators. | | | |

**CHEM 301 - Chemistry**

You will study the correlation of chemistry to the analytical instrumentation courses in the areas of acids-bases, ionic electrical conduction, oxidation-reduction potentials, UV light absorption in determining the identity and concentrations of solutions, and factors affecting aqueous dissolved oxygen levels.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Demonstrate knowledge of acid/base chemistry using pH calculations and measurements. | | | |
| 2. Calculate the correlation between ionic solution concentrations and conductivity measurements. | | | |
| 3. Calculate the relationship of chemical oxidation reduction reactions to electrode potentials in voltaic and concentration electrolytic cells. | | | |
| 4. Measure UV light absorption using solution turbidity, suspension, and dissolved solids concentration. | | | |
| 5. Calculate dissolved oxygen concentrations due to changes in soluble salts, turbulence, aeration, pollution, temperature, and pressure. | | | |

**CLTR 100 - Diversity**

You will examine the elements of cultural, gender and disability diversity in Canada and the processes that promote inclusion. You will explore elements of Indigenous culture with a view to understanding both historical elements and contemporary issues in Canada. Your studies will also provide opportunities to participate in various cultural practices.

**Credit unit(s):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** CLTR 180, YCW 189

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Examine the diverse Canadian identity. | | | |
| 2. Describe diversity and social inequality in Canadian society. | | | |
| 3. Examine the impact of colonization and treaties on Indigenous peoples. | | | |
| 4. Examine contemporary realities and resilience of Indigenous people in Canada. | | | |
| 5. Explore cultural events. | | | |
| 6. Promote inclusion. | | | |

**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):** INDG 100

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**COAP 172 - Computer Applications**

You will receive an introduction to computer applications (such as a word processor, spreadsheet and database application). You will also gain knowledge of electronic spreadsheets in detail.

**Credit unit(s):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** COAP 110, COAP 122

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Perform file management. | | | |
| 2. Demonstrate an understanding of the purpose and characteristics of a word processing application. | | | |
| 3. Demonstrate an understanding of the purpose and characteristics of a spreadsheet application. | | | |
| 4. Use a variety of electronic spreadsheet functions to process information. | | | |
| 5. Work with multiple worksheets in Microsoft Excel. | | | |
| 6. Work with charts within Microsoft Excel. | | | |
| 7. Use Excel to solve advanced numerical problems. | | | |
| 8. Use Excel database functionality to store and manipulate data. | | | |
| 9. Describe the purpose of a relational database management system. | | | |

**COM 104 - Teamwork and Collaboration**

You will develop collaborative and teamwork skills and apply them to pharmacy technician practice, including effective research skills, professional documentation and a collaborative approach to decision-making in a health team.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Apply basic research skills. | | | |
| 2. Create professional workplace documentation. | | | |
| 3. Discuss collaborative decision-making. | | | |
| 4. Apply effective teamwork 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):** COMM 118

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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):** BCOM 105, BCOM 121

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**COMM 113 - 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):** COMM 192

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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):** BCOM 120, COMM 127A, COMM 185, COMM 187, COMM 191, COMM 193, JOBS 190, PROF 100, TCOM 102, TCOM 105, TCOM 140

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 197 - Helping Skills**

You will apply communication skills to facilitate a helping relationship with your clients, their families, significant others, other health care staff, as well as various other professionals.

**Credit unit(s):** 1.0
**Prerequisites:** COMM 291
**Corequisites:** none
**Equivalent course(s):** COMM 160, COMM 293, HUMR 186, NEPS 112, NURS 163

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Demonstrate helping skills. | | | |
| 2. Apply practical helping skills. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 or TCOM 102 or TCOM 105
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 291 - Interpersonal Communication**

You will develop employability skills through the study of interpersonal communications theory and applications in the workplace. Learning outcomes include the importance of self-awareness and self-esteem, perception problems, verbal and nonverbal messages, and listening skills, creating positive communication climates and resolving interpersonal conflict.

**Credit unit(s):** 2.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** BCOM 103, COMM 112, COMM 195, HUMR 182, HUMR 186, JOBS 190, NEPS 114, NURS 163

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe interpersonal communication. | | | |
| 2. Describe how self-concept and perception affect communication. | | | |
| 3. Discuss verbal and nonverbal messages. | | | |
| 4. Discuss factors affecting communication climates. | | | |
| 5. Apply skills to improve communication. | | | |

**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):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** BCOM 105, BCOM 120, COMM 262, IPSK 200

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

**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):** COMP 182

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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, COMP 120,

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 174 - Intro to Microsoft Excel 1**

You will study the basic features of Excel. You will learn to create workbooks, format spreadsheet elements, manipulate multiple worksheets, create simple charts and use simple formulas and functions.

**Credit unit(s):** 1.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** COAP 117, COAP 138, COAP 197, COMP 120

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Create a spreadsheet. | | | |
| 2. Use basic functions and productivity tools. | | | |
| 3. Work with multiple worksheets. | | | |
| 4. Create basic charts. | | | |

**COMP 175 - Introduction to Microsoft Excel 2**

You will study the intermediate features of Excel. Using the skills and knowledge you acquired in COMP 174 (Introduction to Excel 1), you will learn to use more advanced spreadsheet functions, create and modify several chart types, and perform data manipulation.

**Credit unit(s):** 1.0
**Prerequisites:** COMP 172 or COMP 174
**Corequisites:** none
**Equivalent course(s):** COMP 284

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Apply advanced formula construction. | | | |
| 2. Work with charts. | | | |
| 3. Perform data management. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 study how to use drawing instruments and Computer-Aided Design (CAD) systems and apply drafting standards 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 183 - Drafting and Blueprint Reading**

You will acquire sufficient drafting and blueprint reading skills to produce acceptable shop drawings. You will be able to read all shop drawings for fabricating and maintaining industrial equipment. You will practice fabrication to complete the Arbor Press Project. Wherever possible, drafting courses will be modified to meet the specific requirements of the trade.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Prepare working sketches. | | | |
| 2. Develop working drawings from sketches. | | | |
| 3. Construct parts and assembly drawings from working drawings. | | | |
| 4. Generate assembly drawing and parts lists. | | | |
| 5. Prepare patterns using development techniques. | | | |
| 6. Interpret welding symbols. | | | |
| 7. Compose welding symbols. | | | |
| 8. Develop weld fabrication drawings. | | | |
| 9. Prepare material lists. | | | |
| 10. Interpret engineering 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 290 - Basic Drafting**

You will apply the basic theory and skills needed to generate graphic representation of an idea, concept or entity. You will apply descriptive geometry and its applications to develop orthographic drawings, dimensioning and pictorial drafting. You will construct auxiliary views and sectional views.

**Credit unit(s):** 4.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** DRFT 174

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Identify basic drafting concepts. | | | |
| 2. Introduce descriptive languages used to describe objects. | | | |
| 3. Plan engineering drawing title blocks. | | | |
| 4. Discuss file management strategies. | | | |
| 5. Complete freehand engineering sketches. | | | |
| 6. Generate orthographic drawings. | | | |
| 7. Construct engineering drawings. | | | |
| 8. Apply dimensions to engineering drawings. | | | |
| 9. Construct sectional view drawings. | | | |
| 10. Apply Fit tolerances. | | | |
| 11. Produce fastener drawings. | | | |
| 12. Construct 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):** COM 103, COMM 292, EMPS 105

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. Create a job search portfolio. | | | |
| 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**ENGL 101 – 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**GRPH 181 - Graphics**

You will develop suitable drafting and blueprint interpreting skills. You will learn how to read blueprints and produce shop drawings as needed in the trade. You will also learn how to take estimates from these drawings.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Use drafting equipment. | | | |
| 2. Sketch a 2-dimensional object. | | | |
| 3. Sketch isometric and oblique drawings. | | | |
| 4. Sketch orthographic drawings. | | | |
| 5. Use scales to reduce and enlarge drawings. | | | |
| 6. Use basic dimensioning. | | | |
| 7. Interpret basic blueprints. | | | |
| 8. Find location, orientation, and size for any feature. | | | |
| 9. Prepare detail working assembly drawings. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. Analyze the Truth and Reconciliation Commission of Canada and the 94 Calls to Action. | | | |

**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):** COMM 106, COMM 127, HUMR 102, TCOM 102, TCOM 105

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**MAT 110 – Mathematics/ 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):** MAT 101, MATH 182, MATH 189

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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):** MAT 246, MATH 115

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** MAT 223, MAT 226

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** TSYH 120

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**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):** MATH 182, MATH 193

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. Solve practical problems involving linear equations. | | | |
| 4. Solve practical problems involving trade formulas. | | | |
| 5. Solve practical problems involving geometry. | | | |
| 6. Solve practical problems involving trigonometry. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 mathematics that is necessary to do basic calculations in applied areas. The course content includes proportions, percentages, geometry, trigonometry, probability, statistics, and financial mathematics. Problem solving will be emphasized throughout the course.

**Credit unit(s):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** MAT 120, MAT 122, MATH 384

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Apply ratios, proportions, and percentages. | | | |
| 2. Apply principles of geometry and trigonometry. | | | |
| 3. Analyze mathematical data and graphs. | | | |
| 4. Examine basic statistics and probability. | | | |
| 5. Apply financial mathematics. | | | |

**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):** CALC 281, MAT 111, MAT 222, MAT 246

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 130 - Industrial Mathematics**

You will review fractions, decimals and percentages. You will study basic algebra, ratio and proportion, linear measure, areas, volumes, capacities, interrelationships used in the metric and Imperial systems, wage and time calculation, and financial calculations.

**Credit unit(s):** 2.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** MATH 165, MEAS 182

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

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Use arithmetic. | | | |
| 2. Use some basics of algebra. | | | |
| 3. Use the International System of Units (SI) and Imperial units. | | | |
| 4. Solve geometry problems and angular measure. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** MAT 122, MATH 384

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 168 – Intro Math for Health Sciences**

You will review basic mathematical concepts that are needed in a clinical setting to solve drug dosage problems. You will use dimensional analysis as a method of converting units and of calculating dosages. You will learn when to use proportion versus dimensional analysis in clinical problems.

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

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Document calculation steps to facilitate checking. | | | |
| 2. Use basic mathematics. | | | |
| 3. Use dimensional analysis to convert units and to perform drug dosage calculations. | | | |
| 4. Solve 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, calculate the perimeter, area, and volume of many common shapes, and use Pythagorean theorem.

**Credit unit(s):** 2.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** MATH 187

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 171 - Math of Basic Elect Principles**

You will use arithmetic and algebra to solve practical problems related to the electrician trade. You will convert units of measurement within and between the Imperial and metric systems, including relating metric prefixes to scientific and engineering rotation. You will also use algebra to both solve and transform electrical equations.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Solve practical problems involving arithmetic and algebra. | | | |
| 2. Examine the Imperial and metric systems of measurement. | | | |
| 3. Solve electrical problems using equations. | | | |

**MATH 178 – Mathematics 1**

You will study the fundamental concepts of algebra. You will examine linear equations, variation, properties of exponents and logarithms, and graphing of functions. You will apply algebra to biological and chemical applications.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Apply dimensional analysis | | | |
| 2. Apply algebra to solve equations. | | | |
| 3. Solve linear and quadratic equations. | | | |
| 4. Apply logarithms to solve equations. | | | |
| 5. Use ratio and proportion to solve equations. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Use basic mathematics. | | | |
| 2. Use imperial and metric systems of measurement. | | | |
| 3. Use algebra. | | | |
| 4. Solve basic geometry and trigonometry problems. | | | |
| 5. Solve problems involving rigging. | | | |
| 6. Solve problems related to power transmission. | | | |
| 7. Solve geometric applications for machine shop work. | | | |
| 8. Calculate adjustments for machine alignment and installation. | | | |
| 9. Solve thermodynamics and fluid power problems. | | | |

**MATH 189 – Mathematics 1**

You will review the fundamental concepts of algebra and trigonometry. Your studies will focus on equations of various types, graphing, systems of linear equations, variation, properties of exponents and logarithms, logarithmic and exponential equations, 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):** MATH 280

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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):** MATH 139

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 revisit basic math concepts and calculations as used in the trade. Also, you will study rates, ratios and proportions, properties of circles, properties and measures of angles, some trade geometry and finally 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Use scientific numbers. | | | |
| 2. Perform conversions and comparisons with percents, rates, ratios and proportions. | | | |
| 3. Perform angle measurement and calculations. | | | |
| 4. Perform calculations involving circles and partial circles. | | | |
| 5. Perform basic geometry observations. | | | |
| 6. Solve basic problems involving perimeter, area and volume. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 conversions, ratios, proportions, fractions, decimals, percentages and equations as applied to veterinary concepts. You will also receive an introduction to statistics and graphing. Your studies will focus on units of measurement, drug dosage calculations, fluid 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Apply basic mathematics. | | | |
| 2. Calculate dilutions. | | | |
| 3. Calculate solutions. | | | |
| 4. Use dimensional analysis to convert units to perform drug dosage calculations and to determine IV flow rates. | | | |
| 5. Analyze descriptive statistics in a veterinary medical environment. | | | |
| 6. Analyze descriptive statistics in a veterinary medical environment. | | | |

**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):** MAT 111

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** MAT 120, MAT 122, MATH 182, TSYH 120

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 algebraic problems. | | | |
| 4. Calculate perimeter, area and volume. | | | |
| 5. Solve basic trigonometry problems. | | | |
| 6. Solve exponential and logarithmic equations. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Solve problems involving circular motion. | | | |
| 2. Apply Newton's laws to linear and rotational force systems. | | | |
| 3. Analyze work, power, and the conservation of mechanical energy. | | | |
| 4. Solve problems involving momentum and impulse. | | | |
| 5. Solve problems involving waves and simple harmonic motion. | | | |
| 6. Solve problems involving temperature, thermal energy, and heat. | | | |
| 7. Examine the laws of thermodynamics. | | | |

**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):** PHYS 102

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**

You will study vectors, forces, and Newton's laws of motion. You will study work, energy, power, impulse, and momentum. You will study electric fields, electric potential, and electric forces, as well as magnetic fields and magnetic forces.

**Credit unit(s):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** PHYS 121

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Solve problems of vector addition. | | | |
| 2. Examine uniform and non-uniform motion. | | | |
| 3. Analyze forces and Newton's laws. | | | |
| 4. Solve problems involving work, energy, and power. | | | |
| 5. Solve problems involving impulse and momentum. | | | |
| 6. Solve problems involving electric fields, potentials, and forces. | | | |
| 7. Solve problems involving magnetic fields and forces. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 blueprint reading terminology and standards and interpret blueprints.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Interpret features in all views. | | | |
| 2. Interpret tolerances. | | | |
| 3. Identify dimensioning styles. | | | |
| 4. Describe workpiece specifications and features. | | | |
| 5. Calculate required dimensions of features. | | | |
| 6. Discuss machining procedures related to manufacturing parts. | | | |

**PRNT 106 - Hand Drafting**

You will apply the skills learned in drawing interpretation to sketch oblique, isometric, and orthographic drawings of three-dimensional objects.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Develop an oblique sketch of an object. | | | |
| 2. Develop an isometric sketch of an object. | | | |
| 3. Develop an orthographic sketch of an object. | | | |
| 4. Develop a basic shop drawing using manual drawing techniques. | | | |

**PRNT 107 - Drawing Interpre./Weld Symbols**

In this course you will be introduced to various technical drawings that are used in the construction and manufacturing industries. You will study the proper terminology and components of drawings. In this course students will be introduced to common structural, piping, vessel drawings and terminology. You will be introduced to weld joint design and welding symbol.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe elements of technical drawings. | | | |
| 2. Describe types of prints and print format. | | | |
| 3. Describe types of joints and welds. | | | |
| 4. Describe common welding symbols. | | | |
| 5. Interpret basic shop drawings including structural, piping and vessel. | | | |

**PRNT 108 - Intro to Computer Aided Design**

In this course you will be introduced to computer aided drawing methods used in the fabrication and welding industries. You will use computer assisted drawing software to draw parts and develop both two-and three-dimensional parts and assemblies.

**Credit unit(s):** 2.0
**Prerequisites:** PRNT 106(concurrent), PRNT 107(concurrent)
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Apply the user interface of computer assisted drawing and modeling software (CAM) to shop drawings. | | | |
| 2. Develop parts using CAM software. | | | |
| 3. Develop an assembly using 3D CAM software. | | | |
| 4. Create a drawing with a bill of materials for an assembly using 3D CAM Software. | | | |

**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):** PSYC 188

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** PSYC 189

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 202 - Sport in Society**

You will study historical and current societal issues to recognize the unique role sport has in transforming society and culture. Specific topics include the history of sport sociology in Canada, the role of ethics and integrity, equity, diversity, inclusion, and accessibility, the Truth and Reconciliation Commission of Canada Calls to Action that relate to sport, the Indigenous Long-Term Participant Development Pathway, gender topics, violence and deviance, as well as the relationships between sport and the economy, media, and politics.

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Examine the role of sport in society. | | | |
| 2. Discuss the history of sport sociology in Canada. | | | |
| 3. Analyze the role of ethics and integrity in sport. | | | |
| 4. Discuss deviance and violence in sport. | | | |
| 5. Discuss gender topics in sport. | | | |
| 6. Discuss equity, diversity, inclusion, and accessibility in sport. | | | |
| 7. Apply the Truth and Reconciliation Commission of Canada Calls to Action as they relate to sport. | | | |
| 8. Analyze relationships between sport and the economy, media, and politics. | | | |
| 9. Analyze current and future trends related to sport in society. | | | |

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** ACP 374

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Use the principles of introductory statistics in a scientific investigation. | | | |
| 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):** STAT 201

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** MAT 233, STAT 120

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 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):** STAT 190

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 286 – Statistics and Risk Analysis**

You will apply statistical concepts including confidence intervals, hypothesis testing, regression and correlation analysis, and categorical data analysis. You will study analysis of variance and non-parametric tests. You will use statistical programs and spreadsheets in the study of statistical applications.

**Credit unit(s):** 3.0
**Prerequisites:** STAT 181
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |

**TCOM 102 – Workplace Communications**

You will study communication in the workplace, including conflict resolution techniques, collaboration and teamwork, and the use of social media. You will learn fundamental writing skills and create workplace documents, resumes, and cover letters. You will study employability and job search skills as well as the interview process.

**Credit unit(s):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** COM 160, COMM 127, COMM 191, JOBS 190, JOBS 288, JOBS 290, TCOM 120, TCOM 140, TMGT 180

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Demonstrate fundamental writing skills. | | | |
| 2. Examine the role of digital communication and social media in the workplace. | | | |
| 3. Create workplace documents. | | | |
| 4. Examine fundamentals of interpersonal communication. | | | |
| 5. Discuss conflict resolution techniques. | | | |
| 6. Demonstrate collaboration and teamwork skills. | | | |
| 7. Use job search skills. | | | |

**TCOM 103 – Technical Communications**

You will study essential writing skills and create clear and concise professional documents and technical reports. You will apply methods of research and discuss the ethical and professional usage of digital writing tools. You will also practice public speaking and present technical information to others.

**Credit unit(s):** 3.0
**Pre and Co Requisites:** TCOM 102 or COM 170
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** TCOM 106, TCOM 123, TCOM 141, TCOM 190

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Demonstrate proficient writing skills. | | | |
| 2. Apply writing skills used in technical professions. | | | |
| 3. Discuss professional and ethical use of digital writing tools. | | | |
| 4. Conduct research. | | | |
| 5. Create technical reports. | | | |
| 6. 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 or ENGL 101
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** COMM 127, MGMT 125, TCOM 102

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

**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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** TCOM 102

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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):** TCOM 103

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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 190 – Technical Communications**

You will learn the principles of effective technical writing in the computer industry to increase employability. You will analyze readers' needs for technical documents and write with correct grammar and technical style. You will prepare a variety of written technical reports both individually and collaboratively featuring meaningful content and professional presentation. The production of technical documentation for a variety of user groups will also be emphasized through a project collaboration with COHS 190.

**Credit unit(s):** 3.0
**Prerequisites:** ADMN 220
**Corequisites:** none
**Equivalent course(s):** BCOM 121, TCOM 103

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Customize situational analyses. | | | |
| 2. Use correct grammar and technical style. | | | |
| 3. Write technical documentation. | | | |
| 4. Design professional technical documentation. | | | |
| 5. Establish effective teamwork skills. | | | |

**TCOM 291 - Career Path Search**

You will prepare a career path portfolio based on your accumulated skills, qualifications, and accomplishments. You will create a resume and cover letter to target an information technology (IT) job posting. In a simulated job interview, you will answer behavioural questions and demonstrate the use of a career path portfolio. You will participate in industry partner presentations.

**Credit unit(s):** 1.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** SEM 283

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Discuss information technology related presentations. | | | |
| 2. Create employment documents. | | | |
| 3. Demonstrate interview skills. | | | |

**TCOM 601 – Technical Communications**

You will conduct effective meetings and produce supporting documents including emails. You will discuss technical report purposes and formats, write short technical reports and present technical information. You will also practice 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Conduct meetings. | | | |
| 2. Use correct grammar and technical style. | | | |
| 3. Create technical reports. | | | |
| 4. Use job search skills. | | | |
| 5. Present technical information. | | | |

**TCOM 600 – Business Technology Communications**

You will study written and interpersonal communication skills suitable to technical professionals and create effective presentations. You will produce long form documents, workflow diagrams, and Request for Proposal documents using common software 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**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Apply interpersonal communication skills as a technical professional. | | | |
| 2. Write effective communication from template documents. | | | |
| 3. Create long form documents using word processing software. | | | |
| 4. Produce a workflow diagram in Visio. | | | |
| 5. Create effective reports and dashboards with Excel. | | | |
| 6. Integrate communication tools into an effective presentation. | | | |
| 7. 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):** PHYS 224

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**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. | | | |