



# Architectural Technologies Diploma

## PLAR Candidate Guide

Prior Learning Assessment and Recognition (PLAR)

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### Prior learning credit options at Saskatchewan Polytechnic

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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

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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

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

- A. [PLAR fees](#)
- B. [PLAR eligibility and options](#)
- C. [Dates when PLAR assessment is available](#)
- D. [Special directions for this program](#)
- E. [PLAR contact person](#)
- F. [Self-rating course outlines](#)

## A. PLAR fees

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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

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To be eligible for PLAR for courses in this program, you must first apply for admission and be accepted into the program. You must also consult with the [PLAR contact person](#) and be approved for PLAR assessment.

### Course prerequisites and corequisites

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

### Block assessment

Some programs may assess a cluster of courses together in one block, which may save you time and effort. Ask the [PLAR contact person](#) whether there are any block assessment options in this program.

## C. Dates when PLAR assessment is available

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PLAR assessment for this program is available from Sept 1 to June 15 in each academic year.

**All PLAR assessments must be completed by June 15 of each academic year.**

## D. Special directions for this program

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1. **Review** the [PLAR process and FAQs](#) and the information in this guide.
2. **Self-rate** your learning for each course using the [Course Outlines](#) in this guide.
3. **Consult** with the [PLAR contact person](#) for PLAR approval. Be prepared to provide your resume, course self-ratings (see [section F](#)), and a partially completed [PLAR application](#). If you are approved for PLAR, the contact person will sign your PLAR application and explain next steps.
4. Apply for admission to the program. See [directions](#) for applying.
5. **Register** for PLAR at [Registration/Enrolment Services](#) once you have signed approval on your [PLAR Application Form](#). The PLAR fee will be added to your student account.
6. **Finalize** an assessment plan with your assigned assessor.
7. **Complete** assessment before your PLAR registration expires.

## E. PLAR contact person

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Contact one of the Program Heads below to arrange a consultation **after** you have read this guide and [general PLAR information](#) and rated yourself for each course (see next section). Consultation may be by phone, online, or in person. Be prepared to provide your resume, course self-ratings, and a partially completed [PLAR application](#). If agreement is reached to go ahead with PLAR, the contact person will sign approval on your PLAR application and explain the next steps. Admission to the program is required before you can register for PLAR.

**Angela Deans, Program Head**

Architectural Technologies  
Saskatchewan Polytechnic | Moose Jaw Campus  
Phone: 306-691-8402  
Email: [angela.deans@saskpolytech.ca](mailto:angela.deans@saskpolytech.ca)

## F. Self-rating course outlines

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Clicking on a course code below opens a page where you can rate yourself on the knowledge and skills assessed for PLAR credit. For Arts & Sciences courses, clicking on the course code opens another PLAR guide. The [PLAR contact person](#) for this program will refer you to another person to discuss PLAR for courses delivered by Arts & Sciences or another program/department.

| COURSE CODE              | COURSE NAME                                         | Delivered by another department/program |
|--------------------------|-----------------------------------------------------|-----------------------------------------|
| <a href="#">CNST 122</a> | Building Construction: Wood Frame Residential 1     |                                         |
| <a href="#">CODE 100</a> | Building Code: Part 9 Applications 1                |                                         |
| <a href="#">DRFT 109</a> | Architectural Drafting: Fundamental Techniques      |                                         |
| <a href="#">DRFT 110</a> | Architectural Drafting: Computer-Aided Techniques 1 |                                         |
| <a href="#">DRFT 121</a> | Design Studio: Fundamentals                         |                                         |
| <a href="#">MATH 115</a> | Calculus for Architectural Technologies             |                                         |
| <a href="#">MGMT 228</a> | Management Principles                               |                                         |
| <a href="#">TCOM 102</a> | Workplace Communication                             |                                         |
| <b>Semester 2</b>        |                                                     |                                         |
| <a href="#">ADMN 108</a> | Contract Administration: Ethics, Law and Documents  |                                         |
| <a href="#">ADMN 109</a> | Contract Administration: Estimating                 |                                         |
| <a href="#">CNST 221</a> | Building Construction: Residential Construction 2   |                                         |
| <a href="#">CODE 101</a> | Building Code: Part 9 Applications 2                |                                         |

| <b>COURSE CODE</b>                    | <b>COURSE NAME</b>                                              | <b>Delivered by another department/program</b> |
|---------------------------------------|-----------------------------------------------------------------|------------------------------------------------|
| <a href="#">DRFT 111</a>              | Architectural Drafting: Computer-Aided Techniques 2             |                                                |
| <a href="#">DRFT 220</a>              | Architectural Drafting: Residential Working Drawings 1          |                                                |
| <a href="#">DSGN 231</a>              | Design Studio: Residential                                      |                                                |
| <a href="#">SAFE 120</a>              | Safety Awareness                                                |                                                |
| <a href="#">STAT 200</a>              | Statistics for Technology                                       |                                                |
| <a href="#">TCOM 103</a>              | Technical Communication                                         |                                                |
| <b>Co-operative Work Term</b>         |                                                                 |                                                |
| <a href="#">COOP 101</a>              | Co-operative Work Term                                          |                                                |
| <a href="#">COOP 201</a>              | Co-operative Work Term                                          |                                                |
| <a href="#">COOP 301</a>              | Co-operative Work Term                                          |                                                |
| <b>Semester 3</b>                     |                                                                 |                                                |
| <a href="#">ADMN 211</a>              | Contract Administration: Construction Contracts and Regulations |                                                |
| <a href="#">ADMN 212</a>              | Contract Administration: Cost Management and Accounting         |                                                |
| <a href="#">BLDG 220</a>              | Bldg Systems: Residential                                       |                                                |
| <a href="#">CNST 222</a>              | Building Construction: Commercial Fundamentals                  |                                                |
| <a href="#">CODE 200</a>              | Building Code: Part 3 Applications 1                            |                                                |
| <a href="#">DRFT 224</a>              | Architectural Drafting: Residential Working Drawings 2          |                                                |
| <a href="#">DSGN 232</a>              | Design Studio: Institutional                                    |                                                |
| <a href="#">PHYS 228</a>              | Physics: Light, Heat and Sound                                  |                                                |
| <b>Co-Operative Work Term</b>         |                                                                 |                                                |
| <a href="#">COOP 201</a>              | Co-operative Work Term                                          |                                                |
| <b>Semester 4 (Building Sciences)</b> |                                                                 |                                                |
| <a href="#">BLDG 222</a>              | Building Systems: Building Science                              |                                                |
| <a href="#">CNST 232</a>              | Building Construction: Commercial Buildings 1                   |                                                |

| <b>COURSE CODE</b>                    | <b>COURSE NAME</b>                                          | <b>Delivered by another department/program</b> |
|---------------------------------------|-------------------------------------------------------------|------------------------------------------------|
| <a href="#">CODE 201</a>              | Building Code: Part 3 Applications 2                        |                                                |
| <a href="#">PHYS 227</a>              | Physics: Statics and Strength of Materials                  |                                                |
| <a href="#">RENO 200</a>              | Architectural Drafting: Renovation Working Drawings         |                                                |
| <a href="#">SRVY 228</a>              | Surveying: Introduction to Survey and Building Layout       |                                                |
| <b>Semester 4 Electives (1 of 2)</b>  |                                                             |                                                |
| <a href="#">HIST 200</a>              | Architectural History: London Study Abroad                  |                                                |
| <a href="#">HIST 221</a>              | Architectural History: Context for Saskatchewan             |                                                |
| <b>Semester 4 (Interior Design)</b>   |                                                             |                                                |
| <a href="#">CNST 233</a>              | Building Construction: Commercial Interiors                 |                                                |
| <a href="#">CODE 201</a>              | Building Code: Part 3 Applications 2                        |                                                |
| <a href="#">DSGN 234</a>              | Design Studio: Commercial Mixed Occupancy 1                 |                                                |
| <a href="#">PHYS 227</a>              | Physics: Statics and Strength of Materials                  |                                                |
| <a href="#">RENO 200</a>              | Architectural Drafting: Renovation Working Drawings         |                                                |
| <a href="#">SRVY 228</a>              | Surveying: Introduction to Survey and Building Layout       |                                                |
| <b>Semester 4 Electives (1 of 2)</b>  |                                                             |                                                |
| <a href="#">HIST 200</a>              | Architectural History: London Study Abroad                  |                                                |
| <a href="#">HIST 221</a>              | Architectural History: Context for Saskatchewan             |                                                |
| <b>Co-Operative Work Term</b>         |                                                             |                                                |
| <a href="#">COOP 301</a>              | Co-operative Work Term                                      |                                                |
| <b>Semester 5 (Building Sciences)</b> |                                                             |                                                |
| <a href="#">ADMN 258</a>              | Project Management and Estimating                           |                                                |
| <a href="#">BLDG 301</a>              | Building Systems: Commercial                                |                                                |
| <a href="#">BLDG 302</a>              | Building Construction: High-Performance Building Enclosures |                                                |
| <a href="#">CNST 224</a>              | Building Construction: Commercial Buildings 2               |                                                |

| COURSE CODE                           | COURSE NAME                                                               | Delivered by another department/program |
|---------------------------------------|---------------------------------------------------------------------------|-----------------------------------------|
| <a href="#">CODE 300</a>              | Building Code: Part 3 Applications 3                                      |                                         |
| <a href="#">DRFT 233</a>              | Architectural Drafting: Commercial Working Drawings for Building Sciences |                                         |
| <a href="#">PROJ 228</a>              | Applied Research: Capstone Project                                        |                                         |
| <b>Semester 5 (Interior Design)</b>   |                                                                           |                                         |
| <a href="#">ADMN 258</a>              | Project Management and Estimating                                         |                                         |
| <a href="#">BLDG 301</a>              | Building Systems: Commercial                                              |                                         |
| <a href="#">CNST 234</a>              | Building Construction: Design Build Project                               |                                         |
| <a href="#">CODE 300</a>              | Building Code: Part 3 Applications 3                                      |                                         |
| <a href="#">DRFT 234</a>              | Architectural Drafting: Commercial Working Drawings for Interiors         |                                         |
| <a href="#">DSGN 235</a>              | Design Studio: Commercial Mixed Occupancy 2                               |                                         |
| <a href="#">PROJ 228</a>              | Applied Research: Capstone Project                                        |                                         |
| <b>Semester 5 (Building Sciences)</b> |                                                                           |                                         |
| <a href="#">ADMN 258</a>              | Project Management and Estimating                                         |                                         |
| <a href="#">BLDG 301</a>              | Building Systems: Commercial                                              |                                         |
| <a href="#">BLDG 302</a>              | Building Construction: High-Performance Building Enclosures               |                                         |
| <a href="#">CNST 224</a>              | Building Construction: Commercial Buildings 2                             |                                         |
| <a href="#">CODE 300</a>              | Building Code: Part 3 Applications 3                                      |                                         |
| <a href="#">DRFT 233</a>              | Architectural Drafting: Commercial Working Drawings for Building Sciences |                                         |
| <a href="#">PROJ 228</a>              | Applied Research: Capstone Project                                        |                                         |
| <b>Semester 5 (Interior Design)</b>   |                                                                           |                                         |
| <a href="#">ADMN 258</a>              | Project Management and Estimating                                         |                                         |
| <a href="#">BLDG 301</a>              | Building Systems: Commercial                                              |                                         |
| <a href="#">CNST 234</a>              | Building Construction: Design Build Project                               |                                         |
| <a href="#">CODE 300</a>              | Building Code: Part 3 Applications 3                                      |                                         |

| COURSE CODE              | COURSE NAME                                                       | Delivered by another department/program |
|--------------------------|-------------------------------------------------------------------|-----------------------------------------|
| <a href="#">DRFT 234</a> | Architectural Drafting: Commercial Working Drawings for Interiors |                                         |
| <a href="#">DSGN 235</a> | Design Studio: Commercial Mixed Occupancy 2                       |                                         |
| <a href="#">PROJ 228</a> | Applied Research: Capstone Project                                |                                         |

**CNST 122 - Building Construction: Wood Frame Residential 1**

You will learn the fundamentals of light wood frame construction designed using Part 9 of the National Building Code of Canada. You will analyze the structural requirements of bungalows and bi-levels. You will also learn how to draw construction details using architectural drafting conventions.

**Credit unit(s):** 4.0  
**Prerequisites:** none  
**Corequisites:** CODE 100  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Analyze foundation requirements for concrete basements with an attached garage.                                                                                                                                                                                                                                                             |                  |                 |             |
| 2. Calculate structural requirement for wood frame floors in bungalows, including stair openings.                                                                                                                                                                                                                                              |                  |                 |             |
| 3. Analyze the structural requirements for cantilevered and sunken floors.                                                                                                                                                                                                                                                                     |                  |                 |             |
| 4. Analyze foundation requirements for bi-levels.                                                                                                                                                                                                                                                                                              |                  |                 |             |
| 5. Analyze structural requirements for wood frame floors in bi-levels, including stair openings.                                                                                                                                                                                                                                               |                  |                 |             |
| 6. Examine structural requirements for wood frame walls in bungalows and bi-levels.                                                                                                                                                                                                                                                            |                  |                 |             |
| 7. Sketch critical connection details for structural systems in bungalows and bi-levels.                                                                                                                                                                                                                                                       |                  |                 |             |
| 8. Sketch building sections through bungalows and bi-levels.                                                                                                                                                                                                                                                                                   |                  |                 |             |
| 9. Use manual drafting techniques.                                                                                                                                                                                                                                                                                                             |                  |                 |             |
| 10. Draw wall sections for bungalows and bi-levels using architectural drafting conventions.                                                                                                                                                                                                                                                   |                  |                 |             |
| 11. Draw critical connection details using architectural drafting conventions.                                                                                                                                                                                                                                                                 |                  |                 |             |
| 12. Sketch construction details indicating air, vapour, and thermal control layers.                                                                                                                                                                                                                                                            |                  |                 |             |

**CODE 100 - Building Code: Part 9 Applications 1**

You will learn to interpret sections of Part 9 of the National Building Code of Canada (NBC). You will discuss typical construction materials and methods.

**Credit unit(s):** 2.0  
**Prerequisites:** none  
**Corequisites:** CNST 122  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Explain how the National Building Code of Canada (NBC) is used in Saskatchewan.                                                                                                                                                                                                                                                             |                  |                 |             |
| 2. Discuss how the NBC influences residential construction methods and materials.                                                                                                                                                                                                                                                              |                  |                 |             |
| 3. Interpret NBC Part 9 requirements for below- and at-grade construction systems.                                                                                                                                                                                                                                                             |                  |                 |             |
| 4. Interpret NBC Part 9 requirements for floor systems.                                                                                                                                                                                                                                                                                        |                  |                 |             |
| 5. Interpret NBC Part 9 requirements for above-grade wall systems.                                                                                                                                                                                                                                                                             |                  |                 |             |
| 6. Interpret NBC Part 9 requirements for finishes and fenestrations.                                                                                                                                                                                                                                                                           |                  |                 |             |
| 7. Interpret NBC requirements for heat transfer, air leakage, and condensation control in Part 9 buildings.                                                                                                                                                                                                                                    |                  |                 |             |

## DRFT 109 - Architectural Drafting: Fundamental Techniques

You will study the fundamentals of architectural drafting using manual techniques. You will be introduced to architectural drafting conventions while creating multi-view and single-view drawings.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Explain the role of design drawings in architectural problem solving.                                                                                                                                                                                                                                                                       |           |          |      |
| 2. Discuss projection systems and pictorial effects.                                                                                                                                                                                                                                                                                           |           |          |      |
| 3. Use manual drafting equipment and techniques.                                                                                                                                                                                                                                                                                               |           |          |      |
| 4. Use architectural drafting conventions.                                                                                                                                                                                                                                                                                                     |           |          |      |
| 5. Examine relationships between three dimensional objects and representational design drawings.                                                                                                                                                                                                                                               |           |          |      |
| 6. Construct orthographic projections.                                                                                                                                                                                                                                                                                                         |           |          |      |
| 7. Construct shades and shadows on multi-view and single-view drawings.                                                                                                                                                                                                                                                                        |           |          |      |
| 8. Construct perspective drawings.                                                                                                                                                                                                                                                                                                             |           |          |      |

**DRFT 110 - Architectural Drafting: Computer-Aided Techniques 1**

You will acquire fundamental skills required to operate AutoCAD. The course focuses on architectural applications of the software.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Use basic AutoCAD functions.                                                                                                                                                                                                                                                                                                                |           |          |      |
| 2. Use intermediate AutoCAD functions.                                                                                                                                                                                                                                                                                                         |           |          |      |
| 3. Use advanced AutoCAD functions to create efficient workflows for architectural drafting.                                                                                                                                                                                                                                                    |           |          |      |
| 4. Draw residential construction details using AutoCAD.                                                                                                                                                                                                                                                                                        |           |          |      |
| 5. Draw simple plans and elevations using AutoCAD.                                                                                                                                                                                                                                                                                             |           |          |      |
| 6. Use AutoCAD to print multi-scale architectural drawings.                                                                                                                                                                                                                                                                                    |           |          |      |

### DSGN 121 - Design Studio: Fundamentals

You will learn fundamental graphic skills and graphic design concepts. You will learn how to apply these skills to graphic presentations and three-dimensional objects.

**Credit unit(s):** 4.0  
**Prerequisites:** none  
**Corequisites:** none  
**Equivalent course(s):** GRPH 121

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Identify the elements and principles of design.                                                                                                                                                                                                                                                                                             |           |          |      |
| 2. Apply elements of design.                                                                                                                                                                                                                                                                                                                   |           |          |      |
| 3. Apply principles of design.                                                                                                                                                                                                                                                                                                                 |           |          |      |
| 4. Use manual techniques to demonstrate design fundamentals.                                                                                                                                                                                                                                                                                   |           |          |      |
| 5. Use software to demonstrate design fundamentals.                                                                                                                                                                                                                                                                                            |           |          |      |
| 6. Prepare theory plates that demonstrate the rules of design.                                                                                                                                                                                                                                                                                 |           |          |      |
| 7. Revise theory plates in response to criticism.                                                                                                                                                                                                                                                                                              |           |          |      |
| 8. Defend revised theory plates.                                                                                                                                                                                                                                                                                                               |           |          |      |
| 9. Propose a three-dimensional design solution that demonstrates a design concept using the rules of design.                                                                                                                                                                                                                                   |           |          |      |
| 10. Create a three-dimensional model that communicates a design concept.                                                                                                                                                                                                                                                                       |           |          |      |
| 11. Reflect on the design success of three-dimensional models.                                                                                                                                                                                                                                                                                 |           |          |      |
| 12. Sketch small objects using watercolour, marker, and pencil crayon.                                                                                                                                                                                                                                                                         |           |          |      |

## MATH 115 - Calculus for Architectural Technologies

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 220 MAT 222 MAT 246

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

## MGMT 228 - Management Principles

You will study human behaviour in organizations and develop the skills needed to deal with people at work. The course content includes individual behaviour, values, interpersonal relationships and communications, groups and team dynamics, organizational culture, leadership, and change. All topics are dealt with in the context of diverse formal organizations.

**Credit unit(s):** 3.0  
**Prerequisites:** none  
**Corequisites:** none  
**Equivalent course(s):** ADMN 220, TCOM 227

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Describe organizational behaviour.                                                                                                                                                                                                                                                                                                          |           |          |      |
| 2. Explain how our perceptions, personalities, emotions, and values shape our behaviour.                                                                                                                                                                                                                                                       |           |          |      |
| 3. Apply various motivational models to improve performance.                                                                                                                                                                                                                                                                                   |           |          |      |
| 4. Develop effective teambuilding skills.                                                                                                                                                                                                                                                                                                      |           |          |      |
| 5. Explain how power and organizational politics relate to performance.                                                                                                                                                                                                                                                                        |           |          |      |
| 6. Explain conflict management and organizational culture.                                                                                                                                                                                                                                                                                     |           |          |      |
| 7. Describe the appropriate leadership style in a situation using leadership theory.                                                                                                                                                                                                                                                           |           |          |      |
| 8. Explain organizational change and strategies to overcome resistance to change.                                                                                                                                                                                                                                                              |           |          |      |
| 9. Demonstrate the ethics expected of architectural technologists.                                                                                                                                                                                                                                                                             |           |          |      |

**TCOM 102 - Workplace Communication**

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

**Credit unit(s):** 3.0  
**Prerequisites:** none  
**Corequisites:** none  
**Equivalent course(s):** COM 160 COMM 191 JOBS 190 JOBS 288 JOBS 290 TCOM 102CE TCOM 120  
 TCOM 140 TMGT 180

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

**ADMN 108 - Contract Administration: Ethics, Law, and Documents**

You will be introduced to the roles and responsibilities of people involved in construction projects, considering professional ethics, liability, safety, and contractual responsibility. You will explore the basic principles of construction documentation as defined by Construction Specifications Canada Principles of Construction Documentation.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Discuss the importance of ethics and liability in construction.                                                                                                                                                                                                                                                                             |                  |                 |             |
| 2. Examine the treaty relationship in relation to land ownership and stewardship.                                                                                                                                                                                                                                                              |                  |                 |             |
| 3. Describe the construction process and the principles of construction documentation.                                                                                                                                                                                                                                                         |                  |                 |             |
| 4. Demonstrate how to assemble a basic construction specification.                                                                                                                                                                                                                                                                             |                  |                 |             |
| 5. Discuss contract types and applicable codes, and standards.                                                                                                                                                                                                                                                                                 |                  |                 |             |
| 6. Discuss the documents used in contract administration.                                                                                                                                                                                                                                                                                      |                  |                 |             |

**ADMN 109 - Contract Administration: Estimating**

You will learn the fundamental procedures used to estimate costs of construction. You will learn the skills required to prepare an estimate.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Analyze residential drawings to determine parameters of the construction project.                                                                                                                                                                                                                                                           |           |          |      |
| 2. Compose data required to determine cost of labour, materials, equipment, and overhead.                                                                                                                                                                                                                                                      |           |          |      |
| 3. Use software to prepare an estimate for bidding.                                                                                                                                                                                                                                                                                            |           |          |      |

**CNST 221 - Building Construction: Residential Construction 2**

You will expand your knowledge of light wood frame construction designed using Part 9 of the National Building Code of Canada. You will analyze the structural requirements of two-storey houses and develop the skills necessary to design and detail related construction assemblies.

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 122  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Analyze roof requirements for bungalows and two-storeys.                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 2. Analyze stair requirements for bungalows, bi-levels and two-storeys.                                                                                                                                                                                                                                                                        |                  |                 |             |
| 3. Analyze load transference in two-storey residences.                                                                                                                                                                                                                                                                                         |                  |                 |             |
| 4. Design two-storey structures using the National Building Code of Canada (NBC) Part 9 to select structural elements.                                                                                                                                                                                                                         |                  |                 |             |
| 5. Use manufacturer’s literature to establish requirements for using engineered structural components.                                                                                                                                                                                                                                         |                  |                 |             |
| 6. Prepare construction details for roof assemblies.                                                                                                                                                                                                                                                                                           |                  |                 |             |
| 7. Prepare construction details for stairs.                                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 8. Prepare construction details for interior doors and doorways.                                                                                                                                                                                                                                                                               |                  |                 |             |
| 9. Prepare construction details for exterior doors.                                                                                                                                                                                                                                                                                            |                  |                 |             |
| 10. Prepare construction details for exterior windows.                                                                                                                                                                                                                                                                                         |                  |                 |             |
| 11. Prepare constructions details that illustrate advanced wall construction methods.                                                                                                                                                                                                                                                          |                  |                 |             |

## CODE 101 - Building Code: Part 9 Applications 2

You will expand your ability to interpret sections of Part 9 of the National Building Code of Canada (NBC). You will gain proficiency in applying code concepts that impact the design and construction of houses.

**Credit unit(s):** 2.0  
**Prerequisites:** CODE 100  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Interpret NBC Part 9 requirements for roof systems.                                                                                                                                                                                                                                                                                         |           |          |      |
| 2. Interpret NBC Part 9 requirements for stairs, ramps, handrails, and guards in houses.                                                                                                                                                                                                                                                       |           |          |      |
| 3. Interpret NBC Part 9 requirements for means of egress in houses.                                                                                                                                                                                                                                                                            |           |          |      |
| 4. Interpret NBC Part 9 requirements for fire protection in houses.                                                                                                                                                                                                                                                                            |           |          |      |
| 5. Interpret requirements for houses with secondary suites.                                                                                                                                                                                                                                                                                    |           |          |      |
| 6. Interpret NBC Part 9 requirements for spatial separation restrictions between houses.                                                                                                                                                                                                                                                       |           |          |      |
| 7. Explain the options for meeting NBC Part 9 energy efficiency requirements in Saskatchewan.                                                                                                                                                                                                                                                  |           |          |      |

## DRFT 111 - Architectural Drafting: Computer-Aided Techniques 2

You will acquire fundamental skills required to operate Autodesk Revit. You will create a partial set of working drawings for a single-family residence using fundamental procedures in Revit. This course serves as an introduction to Building Information Modelling (BIM) techniques.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Discuss Building Information Modelling (BIM) techniques.                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 2. Set up Revit drawings for use in architectural applications.                                                                                                                                                                                                                                                                                |                  |                 |             |
| 3. Create a building model using Revit.                                                                                                                                                                                                                                                                                                        |                  |                 |             |
| 4. Create architectural drawings using a Revit model.                                                                                                                                                                                                                                                                                          |                  |                 |             |

## DRFT 220 - Architectural Drafting: Residential Working Drawings 1

You will learn to produce architectural drawings for single-storey residential construction projects. Using AutoCAD, you will create construction drawings based on the typical requirements for residential permit sets.

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 122, CODE 101  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Apply architectural drafting conventions to residential set of working drawings using AutoCAD.                                                                                                                                                                                                                                              |           |          |      |
| 2. Apply annotations, including dimensions and other critical information.                                                                                                                                                                                                                                                                     |           |          |      |
| 3. Analyze a preliminary design of a house to establish horizontal and vertical relationships.                                                                                                                                                                                                                                                 |           |          |      |
| 4. Analyze structural requirements for a single-storey house.                                                                                                                                                                                                                                                                                  |           |          |      |
| 5. Create a main floor plan.                                                                                                                                                                                                                                                                                                                   |           |          |      |
| 6. Create a basement plan.                                                                                                                                                                                                                                                                                                                     |           |          |      |
| 7. Create a building section and a wall section.                                                                                                                                                                                                                                                                                               |           |          |      |
| 8. Create a building elevations.                                                                                                                                                                                                                                                                                                               |           |          |      |
| 9. Create truss and floor layouts.                                                                                                                                                                                                                                                                                                             |           |          |      |
| 10. Create site and roof plans.                                                                                                                                                                                                                                                                                                                |           |          |      |
| 11. Revise working drawings to address deficiencies.                                                                                                                                                                                                                                                                                           |           |          |      |
| 12. Assess working drawings for continuity and coordination.                                                                                                                                                                                                                                                                                   |           |          |      |

### DSGN 231 - Design Studio: Residential

You will learn the fundamentals of the design process. You will use that process to design a house and present your design in a professional format.

**Credit unit(s):** 4.0  
**Prerequisites:** DSGN 121, DRFT 110  
**Corequisites:** none  
**Equivalent course(s):** GRPH 122

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Discuss the design process.                                                                                                                                                                                                                                                                                                                 |                  |                 |             |
| 2. Implement strategies for collecting design information.                                                                                                                                                                                                                                                                                     |                  |                 |             |
| 3. Discuss house styles that influence house design.                                                                                                                                                                                                                                                                                           |                  |                 |             |
| 4. Identify technical parameters that will influence a design.                                                                                                                                                                                                                                                                                 |                  |                 |             |
| 5. Apply elements and principles to house design.                                                                                                                                                                                                                                                                                              |                  |                 |             |
| 6. Use SketchUp to create three-dimensional representations.                                                                                                                                                                                                                                                                                   |                  |                 |             |
| 7. Formulate a design programme.                                                                                                                                                                                                                                                                                                               |                  |                 |             |
| 8. Evaluate interactions between activity zones and circulation spaces.                                                                                                                                                                                                                                                                        |                  |                 |             |
| 9. Prepare a preliminary design of a house.                                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 10. Propose materials and finishes that meet programme criteria.                                                                                                                                                                                                                                                                               |                  |                 |             |
| 11. Prepare finalized presentation drawings, including renderings.                                                                                                                                                                                                                                                                             |                  |                 |             |
| 12. Sketch residential items using watercolour, marker and pencil crayon.                                                                                                                                                                                                                                                                      |                  |                 |             |

**SAFE 120 - Safety Awareness**

You will acquire the knowledge and theory needed to recognize and protect yourself from unsafe conditions on the job site. You will discuss Occupational Health and Safety regulations. You will identify unsafe working environments and practice hazard identification and control.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Identify Occupational Health and Safety regulations.                                                                                                                                                                                                                                                                                        |                  |                 |             |
| 2. Identify unsafe working environments.                                                                                                                                                                                                                                                                                                       |                  |                 |             |
| 3. Practice hazard identification and control.                                                                                                                                                                                                                                                                                                 |                  |                 |             |

**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

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

**TCOM 103 - Technical Communication**

You will use research skills to find technical information and cite it correctly. You will conduct effective meetings and produce supporting documents. As well, you will discuss technical report purposes and formats, write short technical reports and present technical information.

**Credit unit(s):** 3.0  
**Prerequisites:** TCOM 102, COM 170  
**Corequisites:** none  
**Equivalent course(s):** COMM 181 COMM 190 TCOM 103CE TCOM 106 TCOM 123 TCOM 141 TCOM 190

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

## ADMN 211 - Contract Administration: Construction Contracts and Regulations

You will learn the fundamentals of construction contract administration. You will learn about the documents and procedures used to manage construction projects as defined by Construction Specifications Canada Construction Contract Administration.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Describe the construction process and typical documents.                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 2. Discuss field services and initial project procedures.                                                                                                                                                                                                                                                                                      |                  |                 |             |
| 3. Describe site authority and document interpretation.                                                                                                                                                                                                                                                                                        |                  |                 |             |
| 4. Describe the execution of work and site activities.                                                                                                                                                                                                                                                                                         |                  |                 |             |
| 5. Discuss communication, project submittals, changes in the work, and payment procedures.                                                                                                                                                                                                                                                     |                  |                 |             |
| 6. Discuss warranties, close-out, and commissioning.                                                                                                                                                                                                                                                                                           |                  |                 |             |

**ADMN 212 - Contract Administration: Cost Management and Accounting**

You will learn the fundamental skills required to control costs within a construction project. You will also learn the basic principles of construction accounting.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Discuss life-cycle costing and cost control.                                                                                                                                                                                                                                                                                                |                  |                 |             |
| 2. Prepare a preliminary budget for a building.                                                                                                                                                                                                                                                                                                |                  |                 |             |
| 3. Use basic construction accounting methods.                                                                                                                                                                                                                                                                                                  |                  |                 |             |

### BLDG 220 - Building Systems: Residential 1

Your studies will focus on the integration of building engineering systems commonly used in residential buildings. You will be introduced to mechanical, electrical, and plumbing (MEP) design principles from the perspective of architectural coordination.

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 221  
**Corequisites:** none  
**Equivalent course(s):** BUSY 220

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Discuss sustainable strategies in residential buildings.                                                                                                                                                                                                                                                                                    |           |          |      |
| 2. Apply requirements of National Building Code (NBC) 9.36.                                                                                                                                                                                                                                                                                    |           |          |      |
| 3. Summarize lighting design principles for residential buildings.                                                                                                                                                                                                                                                                             |           |          |      |
| 4. Examine typical electrical systems used in residential buildings.                                                                                                                                                                                                                                                                           |           |          |      |
| 5. Examine typical mechanical systems used in residential buildings.                                                                                                                                                                                                                                                                           |           |          |      |
| 6. Examine typical plumbing systems used in residential buildings.                                                                                                                                                                                                                                                                             |           |          |      |
| 7. Sketch schematic mechanical, electrical, and plumbing layouts for residential architectural coordination.                                                                                                                                                                                                                                   |           |          |      |
| 8. Use psychrometric data.                                                                                                                                                                                                                                                                                                                     |           |          |      |
| 9. Calculate total building heat flow.                                                                                                                                                                                                                                                                                                         |           |          |      |

## CNST 222 - Building Construction: Commercial Fundamentals

You will be introduced to materials and methods used in single-storey commercial construction. You will develop the skills necessary to design and detail basic commercial construction assemblies.

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 221  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Construct a framing model based on National Building Code (NBC) Part 9 requirements.                                                                                                                                                                                                                                                        |           |          |      |
| 2. Differentiate between residential and commercial construction approaches.                                                                                                                                                                                                                                                                   |           |          |      |
| 3. Discuss the basic properties of structural wood, steel, and concrete.                                                                                                                                                                                                                                                                       |           |          |      |
| 4. Discuss common foundation systems.                                                                                                                                                                                                                                                                                                          |           |          |      |
| 5. Discuss common load-bearing wall options.                                                                                                                                                                                                                                                                                                   |           |          |      |
| 6. Discuss common low-sloped roof options.                                                                                                                                                                                                                                                                                                     |           |          |      |
| 7. Discuss common sloped roof options.                                                                                                                                                                                                                                                                                                         |           |          |      |
| 8. Explain thermal, vapour, air, and moisture control needs of assemblies and connections.                                                                                                                                                                                                                                                     |           |          |      |
| 9. Prepare construction details for foundation systems.                                                                                                                                                                                                                                                                                        |           |          |      |
| 10. Prepare construction details for load-bearing wall systems.                                                                                                                                                                                                                                                                                |           |          |      |
| 11. Prepare construction details for roof systems.                                                                                                                                                                                                                                                                                             |           |          |      |
| 12. Prepare construction details for transitions between assembly systems.                                                                                                                                                                                                                                                                     |           |          |      |

**CODE 200 - Building Code: Part 3 Applications 1**

You will evaluate buildings which are permitted to be designed and constructed using Part 9 of the National Building Code of Canada (NBC). Your analysis of buildings will include classifications, fire protection requirements and egress requirements.

**Credit unit(s):** 3.0  
**Prerequisites:** CNST 221, CODE 101  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Evaluate buildings to establish Part 3 or Part 9 applicability using the National Building Code of Canada (NBC).                                                                                                                                                                                                                            |                  |                 |             |
| 2. Interpret means of egress in a Part 9 building.                                                                                                                                                                                                                                                                                             |                  |                 |             |
| 3. Interpret building fire protection requirements in a Part 9 building.                                                                                                                                                                                                                                                                       |                  |                 |             |
| 4. Interpret fire protection requirements for rated assemblies and fire separations in a Part 9 building.                                                                                                                                                                                                                                      |                  |                 |             |
| 5. Interpret requirements for spatial separations for Part 9 buildings, other than houses.                                                                                                                                                                                                                                                     |                  |                 |             |
| 6. Interpret requirements for fire alarm and detection systems, and firefighting requirements in a Part 9 building.                                                                                                                                                                                                                            |                  |                 |             |
| 7. Complete a building code analysis for a Part 9 building.                                                                                                                                                                                                                                                                                    |                  |                 |             |

## DRFT 224 - Architectural Drafting: Residential Working Drawings 2

You will produce residential working drawings using Autodesk Revit, based on preliminary design data, manufacturers' literature, and the National Building Code of Canada (NBC). Your focus will be on a custom-designed, two-storey house.

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 221, CODE 101, DRFT 220, DRFT 111  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Propose a custom two-storey house based on a re-design of preliminary sketches.                                                                                                                                                                                                                                                             |                  |                 |             |
| 2. Assess structural requirements.                                                                                                                                                                                                                                                                                                             |                  |                 |             |
| 3. Create floor plans.                                                                                                                                                                                                                                                                                                                         |                  |                 |             |
| 4. Create building and wall sections.                                                                                                                                                                                                                                                                                                          |                  |                 |             |
| 5. Create exterior elevations.                                                                                                                                                                                                                                                                                                                 |                  |                 |             |
| 6. Create construction details.                                                                                                                                                                                                                                                                                                                |                  |                 |             |
| 7. Create interior elevations and details, including millwork.                                                                                                                                                                                                                                                                                 |                  |                 |             |
| 8. Create architectural schedules.                                                                                                                                                                                                                                                                                                             |                  |                 |             |
| 9. Create site plans.                                                                                                                                                                                                                                                                                                                          |                  |                 |             |
| 10. Prepare working drawings using commercial drafting conventions and Autodesk Revit.                                                                                                                                                                                                                                                         |                  |                 |             |
| 11. Revise working drawings to address deficiencies.                                                                                                                                                                                                                                                                                           |                  |                 |             |
| 12. Assess working drawings for continuity and coordination.                                                                                                                                                                                                                                                                                   |                  |                 |             |

### DSGN 232 - Design Studio: Institutional

You While exploring other cultures, you will use the design process to plan and design an institutional project that meets specialized client needs. You will present and reflect on your design in a professional setting.

**Credit unit(s):** 4.0  
**Prerequisites:** DSGN 231, DRFT 220  
**Corequisites:** none  
**Equivalent course(s):** GRPH 220

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Create an Indigenous design proposal in collaboration with stakeholders.                                                                                                                                                                                                                                                                    |           |          |      |
| 2. Acknowledge the value of different cultures.                                                                                                                                                                                                                                                                                                |           |          |      |
| 3. Formulate a design concept and programme.                                                                                                                                                                                                                                                                                                   |           |          |      |
| 4. Propose preliminary floor plans.                                                                                                                                                                                                                                                                                                            |           |          |      |
| 5. Propose pictorial views using digital rendering techniques.                                                                                                                                                                                                                                                                                 |           |          |      |
| 6. Propose materials and finishes that meet programme criteria.                                                                                                                                                                                                                                                                                |           |          |      |
| 7. Propose furniture, furnishings, and equipment (FF&E) that meet programme criteria.                                                                                                                                                                                                                                                          |           |          |      |
| 8. Prepare finalized presentation drawings based on feedback.                                                                                                                                                                                                                                                                                  |           |          |      |
| 9. Present a design in a professional setting.                                                                                                                                                                                                                                                                                                 |           |          |      |
| 10. Evaluate proposed institutional designs based on the design programme.                                                                                                                                                                                                                                                                     |           |          |      |
| 11. Sketch the human form using watercolour, marker and pencil crayon.                                                                                                                                                                                                                                                                         |           |          |      |

## PHYS 228 - Physics: Light, Heat 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

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

### COOP 101 - Co-operative Work Term

Your co-operative education term will provide you with the opportunity to consolidate theoretical and practical concepts learned in the classroom and gain valuable experience in a work setting.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Develop personal employment search skills.                                                                                                                                                                                                                                                                                                  |           |          |      |
| 2. Communicate in the workplace.                                                                                                                                                                                                                                                                                                               |           |          |      |
| 3. Work as a member of the team.                                                                                                                                                                                                                                                                                                               |           |          |      |
| 4. Demonstrate effective work habits.                                                                                                                                                                                                                                                                                                          |           |          |      |
| 5. Become familiar with safe work practices.                                                                                                                                                                                                                                                                                                   |           |          |      |
| 6. Develop personal management skills.                                                                                                                                                                                                                                                                                                         |           |          |      |
| 7. Identify roles and responsibilities of personnel in the workplace.                                                                                                                                                                                                                                                                          |           |          |      |
| 8. Assimilate learned theories and concepts in a workplace setting.                                                                                                                                                                                                                                                                            |           |          |      |
| 9. Demonstrate essential skills.                                                                                                                                                                                                                                                                                                               |           |          |      |

### COOP 201 - Co-operative Work Term

Your second co-operative education term will build on the experience gained during your first work placement and provide you with additional opportunities to develop skills and techniques related to your field of studies in a real work setting.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Participate in a personal employment search.                                                                                                                                                                                                                                                                                                |                  |                 |             |
| 2. Communicate effectively in the workplace.                                                                                                                                                                                                                                                                                                   |                  |                 |             |
| 3. Contribute as a member of the team.                                                                                                                                                                                                                                                                                                         |                  |                 |             |
| 4. Demonstrate effective work habits.                                                                                                                                                                                                                                                                                                          |                  |                 |             |
| 5. Demonstrate safe work practices.                                                                                                                                                                                                                                                                                                            |                  |                 |             |
| 6. Display personal management skills.                                                                                                                                                                                                                                                                                                         |                  |                 |             |
| 7. Identify roles and responsibilities of personnel in the workplace.                                                                                                                                                                                                                                                                          |                  |                 |             |
| 8. Apply learned skills and techniques in the workplace.                                                                                                                                                                                                                                                                                       |                  |                 |             |
| 9. Apply essential skills in the workplace.                                                                                                                                                                                                                                                                                                    |                  |                 |             |

### COOP 301 - Co-operative Work Term

Your third co-operative education work term will round out the work term experience by adding related work knowledge through the application of theories and practices relevant to your field of studies.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Demonstrate personal employment search skills.                                                                                                                                                                                                                                                                                              |           |          |      |
| 2. Display effective communication skills.                                                                                                                                                                                                                                                                                                     |           |          |      |
| 3. Work as a member of the team.                                                                                                                                                                                                                                                                                                               |           |          |      |
| 4. Apply effective work habits.                                                                                                                                                                                                                                                                                                                |           |          |      |
| 5. Perform safe work practices.                                                                                                                                                                                                                                                                                                                |           |          |      |
| 6. Master personal management skills.                                                                                                                                                                                                                                                                                                          |           |          |      |
| 7. Understand roles and responsibilities of personnel in the workplace.                                                                                                                                                                                                                                                                        |           |          |      |
| 8. Apply relevant theories and techniques.                                                                                                                                                                                                                                                                                                     |           |          |      |
| 9. Perform effectively in the workplace.                                                                                                                                                                                                                                                                                                       |           |          |      |

## BLDG 222 - Building Systems: Building Science

You will examine the effects of heat, vapour, and airflow in building enclosures. Using building science principles, you will consider ways to design successful building assemblies and connections. You will also investigate the impact of energy retrofits on aging buildings.

**Credit unit(s):** 3.0  
**Prerequisites:** BLDG 220, CNST 222  
**Corequisites:** none  
**Equivalent course(s):** LAND 220

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Examine properties of materials, considering heat, vapour, and air control.                                                                                                                                                                                                                                                                 |                  |                 |             |
| 2. Analyze heat, vapour, air, and soil gas control in foundations.                                                                                                                                                                                                                                                                             |                  |                 |             |
| 3. Analyze heat, vapour, and air control in wall assemblies.                                                                                                                                                                                                                                                                                   |                  |                 |             |
| 4. Analyze heat, vapour, and air control in roof assemblies.                                                                                                                                                                                                                                                                                   |                  |                 |             |
| 5. Examine the role of weather resistive barriers and water shedding surfaces in building assemblies.                                                                                                                                                                                                                                          |                  |                 |             |
| 6. Examine the design of connection details.                                                                                                                                                                                                                                                                                                   |                  |                 |             |
| 7. Appraise the effect of building envelope retrofits when applied to aging buildings.                                                                                                                                                                                                                                                         |                  |                 |             |

### CNST 232 - Building Construction: Commercial Buildings 1

You will be introduced to materials and methods used in low-rise commercial construction. You will develop the skills necessary to design and detail commercial construction assemblies that integrate structural frames.

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 222  
**Corequisites:** none  
**Equivalent course(s):** CNST 223

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Differentiate between load-bearing wall and structural frame design approaches.                                                                                                                                                                                                                                                             |           |          |      |
| 2. Discuss heavy timber frame systems referencing the Wood Design Manual.                                                                                                                                                                                                                                                                      |           |          |      |
| 3. Discuss steel frame systems referencing the Handbook of Steel Construction.                                                                                                                                                                                                                                                                 |           |          |      |
| 4. Prepare construction details for in-fill wall systems.                                                                                                                                                                                                                                                                                      |           |          |      |
| 5. Prepare construction details for floor systems.                                                                                                                                                                                                                                                                                             |           |          |      |
| 6. Prepare construction details for roof systems.                                                                                                                                                                                                                                                                                              |           |          |      |
| 7. Prepare construction details for transitions between assembly systems.                                                                                                                                                                                                                                                                      |           |          |      |
| 8. Prepare construction details for masonry openings.                                                                                                                                                                                                                                                                                          |           |          |      |
| 9. Design positive drainage for roofs.                                                                                                                                                                                                                                                                                                         |           |          |      |

**CODE 201 - Building Code: Part 3 Applications 2**

You will evaluate non-complex buildings using Part 3 of the National Building Code of Canada (NBC). Your analysis of buildings will include classifications, fire protection requirements and egress requirements. You will also interpret health and accessibility requirements.

**Credit unit(s):** 2.0  
**Prerequisites:** CODE 200  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Classify buildings to determine construction requirements using the National Building Code of Canada (NBC).                                                                                                                                                                                                                                 |                  |                 |             |
| 2. Interpret requirements for fire separations and firewalls.                                                                                                                                                                                                                                                                                  |                  |                 |             |
| 3. Interpret fire protection requirements for rated assemblies and fire separations.                                                                                                                                                                                                                                                           |                  |                 |             |
| 4. Interpret requirements for safety within floor areas.                                                                                                                                                                                                                                                                                       |                  |                 |             |
| 5. Interpret requirements for exits.                                                                                                                                                                                                                                                                                                           |                  |                 |             |
| 6. Interpret building health and accessibility requirement.                                                                                                                                                                                                                                                                                    |                  |                 |             |

**PHYS 227 - Physics: Statics and Strength of Materials**

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):** SCAL 122

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

**RENO 200 - Architectural Drafting: Renovation Working Drawings**

You will create architectural drawings for a building renovation using Autodesk Revit as part of a team. You will also study construction systems of the past to inform your design and drafting decisions. You will gain hands-on experience in preparing as-built drawings, proposing preliminary designs for renovations, and creating construction plans and details.

**Credit unit(s):** 3.0  
**Prerequisites:** DRFT 224, CODE 200  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Prepare a project plan to collaboratively complete team projects.                                                                                                                                                                                                                                                                           |                  |                 |             |
| 2. Compare past construction systems to those used in the present.                                                                                                                                                                                                                                                                             |                  |                 |             |
| 3. Prepare as-built drawings of an existing building.                                                                                                                                                                                                                                                                                          |                  |                 |             |
| 4. Propose a code-compliant preliminary design for a renovation.                                                                                                                                                                                                                                                                               |                  |                 |             |
| 5. Prepare demolition drawings.                                                                                                                                                                                                                                                                                                                |                  |                 |             |
| 6. Create floor plans for a proposed renovation.                                                                                                                                                                                                                                                                                               |                  |                 |             |
| 7. Create building sections for a proposed renovation.                                                                                                                                                                                                                                                                                         |                  |                 |             |
| 8. Create interior and exterior elevations for a proposed renovation.                                                                                                                                                                                                                                                                          |                  |                 |             |
| 9. Create construction details for the affected area.                                                                                                                                                                                                                                                                                          |                  |                 |             |

**SRVY 228 - Surveying: Introduction to Survey and Building Layout**

You will receive an introduction to the basics of surveying. The course content includes horizontal measurements, levelling, angle and direction measurement, computations.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Discuss principles of surveying.                                                                                                                                                                                                                                                                                                            |                  |                 |             |
| 2. Discuss fundamentals of horizontal and vertical measurement.                                                                                                                                                                                                                                                                                |                  |                 |             |
| 3. Perform typical surveying calculations.                                                                                                                                                                                                                                                                                                     |                  |                 |             |
| 4. Demonstrate use of surveying equipment.                                                                                                                                                                                                                                                                                                     |                  |                 |             |
| 5. Create a site plan for architectural working drawings.                                                                                                                                                                                                                                                                                      |                  |                 |             |
| 6. Lay out a building on a construction site.                                                                                                                                                                                                                                                                                                  |                  |                 |             |

## HIST 200 - Architectural History: London Study Abroad

You will survey London’s architectural history from ancient times to the present day, exploring geographic and cultural influences, significant periods, and specific architectural styles. You will study vernacular architecture, ancient civilizations, medieval, early modern, 19th century, modern, and postmodern architecture. You will examine the colonial impact of British architecture in Saskatchewan and the influence of heritage designations on modern urban environments.

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

| Use a checkmark (P) to rate yourself as follows for each learning outcome |                                                                                               | Competent | Learning | None |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------|----------|------|
| Competent:                                                                | I can apply this outcome without direction or supervision.                                    |           |          |      |
| <b>Learning:</b>                                                          | I am still learning skills and knowledge to apply this outcome.                               |           |          |      |
| <b>None:</b>                                                              | I have no knowledge or experience related to this outcome.                                    |           |          |      |
| 1.                                                                        | Discuss the geographic and cultural influences on vernacular architecture.                    |           |          |      |
| 2.                                                                        | Discuss significant architecture from prehistory through to the end of the Roman empire.      |           |          |      |
| 3.                                                                        | Discuss significant architecture from the fall of Rome through the medieval period.           |           |          |      |
| 4.                                                                        | Discuss significant architecture from the early modern period.                                |           |          |      |
| 5.                                                                        | Discuss significant architecture from the long 19th century.                                  |           |          |      |
| 6.                                                                        | Discuss significant architecture from the modern and postmodern periods.                      |           |          |      |
| 7.                                                                        | Examine the colonial influence of British architecture on the Saskatchewan built environment. |           |          |      |
| 8.                                                                        | Discuss the impact of heritage designations on the built environment in a modern city.        |           |          |      |

## HIST 221 - Architectural History: Context for Saskatchewan

You will discuss the historical shaping of Saskatchewan's built environment, considering vernacular approaches and European influences. You will also consider the heritage significance of Saskatchewan buildings.

**Credit unit(s):** 3.0  
**Prerequisites:** none  
**Corequisites:** none  
**Equivalent course(s):** HIST 220

| Use a checkmark (P) to rate yourself as follows for each learning outcome |                                                                                             | Competent | Learning | None |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|----------|------|
| <b>Competent:</b>                                                         | I can apply this outcome without direction or supervision.                                  |           |          |      |
| <b>Learning:</b>                                                          | I am still learning skills and knowledge to apply this outcome.                             |           |          |      |
| <b>None:</b>                                                              | I have no knowledge or experience related to this outcome.                                  |           |          |      |
| 1.                                                                        | Discuss the geographic and cultural influences on vernacular architecture around the globe. |           |          |      |
| 2.                                                                        | Discuss the geographic and cultural influences on Indigenous Peoples' housing in Canada.    |           |          |      |
| 3.                                                                        | Discuss significant architecture from antiquity through to the end of the Roman empire.     |           |          |      |
| 4.                                                                        | Discuss significant architecture from the fall of Rome through the medieval period.         |           |          |      |
| 5.                                                                        | Discuss significant architecture from the early modern period.                              |           |          |      |
| 6.                                                                        | Discuss significant architecture from the long 19th century.                                |           |          |      |
| 7.                                                                        | Discuss significant architecture from the modern and postmodern periods.                    |           |          |      |
| 8.                                                                        | Discuss the influence of historic styles on Saskatchewan architecture.                      |           |          |      |
| 9.                                                                        | Examine Saskatchewan buildings for heritage significance.                                   |           |          |      |

**CNST 233 - Building Construction: Commercial Interiors**

Your studies will focus on materials and construction methods used in commercial interior design. You will develop the skills necessary to design and detail interior construction assemblies. North American Architectural Woodwork Standards (NAAWS) will be examined as part of your studies.

**Credit unit(s):** 3.0  
**Prerequisites:** CNST 222  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Use technical criteria to select interior construction materials and finishes.                                                                                                                                                                                                                                                              |                  |                 |             |
| 2. Examine typical construction methods used for interior assemblies.                                                                                                                                                                                                                                                                          |                  |                 |             |
| 3. Design construction details for partitions.                                                                                                                                                                                                                                                                                                 |                  |                 |             |
| 4. Design construction details for floors.                                                                                                                                                                                                                                                                                                     |                  |                 |             |
| 5. Design construction details for ceilings.                                                                                                                                                                                                                                                                                                   |                  |                 |             |
| 6. Design construction details for interior openings.                                                                                                                                                                                                                                                                                          |                  |                 |             |
| 7. Examine North American Architectural Woodwork Standards (NAAWS).                                                                                                                                                                                                                                                                            |                  |                 |             |
| 8. Design construction details for millwork and furniture pieces.                                                                                                                                                                                                                                                                              |                  |                 |             |
| 9. Design transitions between assembly systems.                                                                                                                                                                                                                                                                                                |                  |                 |             |

**CODE 201 - Building Code: Part 3 Applications 2**

You will evaluate non-complex buildings using Part 3 of the National Building Code of Canada (NBC). Your analysis of buildings will include classifications, fire protection requirements and egress requirements. You will also interpret health and accessibility requirements.

**Credit unit(s):** 2.0  
**Prerequisites:** CODE 200  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Classify buildings to determine construction requirements using the National Building Code of Canada (NBC).                                                                                                                                                                                                                                 |                  |                 |             |
| 2. Interpret requirements for fire separations and firewalls.                                                                                                                                                                                                                                                                                  |                  |                 |             |
| 3. Interpret fire protection requirements for rated assemblies and fire separations.                                                                                                                                                                                                                                                           |                  |                 |             |
| 4. Interpret requirements for safety within floor areas.                                                                                                                                                                                                                                                                                       |                  |                 |             |
| 5. Interpret requirements for exits.                                                                                                                                                                                                                                                                                                           |                  |                 |             |
| 6. Interpret building health and accessibility requirement.                                                                                                                                                                                                                                                                                    |                  |                 |             |

### DSGN 234 - Design Studio: Commercial Mixed Occupancy 1

You will develop the programme and concept for a commercial mixed-occupancy interior using a research-based approach. You will also visually communicate design ideas while advancing your presentation skills. You will use manual techniques and digital imaging software to enhance presentations, create graphic layouts and exploit multiple types of media.

**Credit unit(s):** 4.0  
**Prerequisites:** DRFT 224, DSGN 232, CODE 200  
**Corequisites:** CODE 201  
**Equivalent course(s):** none

| Use a checkmark (P) to rate yourself as follows for each learning outcome |                                                                                                                | Competent | Learning | None |
|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| Competent:                                                                | I can apply this outcome without direction or supervision.                                                     |           |          |      |
| <b>Learning:</b>                                                          | I am still learning skills and knowledge to apply this outcome.                                                |           |          |      |
| <b>None:</b>                                                              | I have no knowledge or experience related to this outcome.                                                     |           |          |      |
| 1.                                                                        | Formulate a design programme for a tenant improvement to an existing building using a research-based approach. |           |          |      |
| 2.                                                                        | Prepare a unified concept proposal.                                                                            |           |          |      |
| 3.                                                                        | Prepare a code review for a tenant improvement.                                                                |           |          |      |
| 4.                                                                        | Propose preliminary floor plan views.                                                                          |           |          |      |
| 5.                                                                        | Demonstrate applications of digital rendering software and manual rendering techniques.                        |           |          |      |
| 6.                                                                        | Create a three-dimensional design.                                                                             |           |          |      |
| 7.                                                                        | Defend design decisions.                                                                                       |           |          |      |
| 8.                                                                        | Produce a professional portfolio.                                                                              |           |          |      |
| 9.                                                                        | Sketch elements of architecturally significant buildings using watercolour, marker and pencil crayon.          |           |          |      |

**PHYS 227 - Physics: Statics and Strength of Materials**

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:** SCAL 122  
**Corequisites:** none  
**Equivalent course(s):** none

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

## RENO 200 - Architectural Drafting: Renovation Working Drawings

You will create architectural drawings for a building renovation using Autodesk Revit as part of a team. You will also study construction systems of the past to inform your design and drafting decisions. You will gain hands-on experience in preparing as-built drawings, proposing preliminary designs for renovations, and creating construction plans and details.

**Credit unit(s):** 3.0  
**Prerequisites:** DRFT 224, CODE 200  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Prepare a project plan to collaboratively complete team projects.                                                                                                                                                                                                                                                                           |           |          |      |
| 2. Compare past construction systems to those used in the present.                                                                                                                                                                                                                                                                             |           |          |      |
| 3. Prepare as-built drawings of an existing building.                                                                                                                                                                                                                                                                                          |           |          |      |
| 4. Propose a code-compliant preliminary design for a renovation.                                                                                                                                                                                                                                                                               |           |          |      |
| 5. Prepare demolition drawings.                                                                                                                                                                                                                                                                                                                |           |          |      |
| 6. Create floor plans for a proposed renovation.                                                                                                                                                                                                                                                                                               |           |          |      |
| 7. Create building sections for a proposed renovation.                                                                                                                                                                                                                                                                                         |           |          |      |
| 8. Create interior and exterior elevations for a proposed renovation.                                                                                                                                                                                                                                                                          |           |          |      |
| 9. Create construction details for the affected area.                                                                                                                                                                                                                                                                                          |           |          |      |

**SRVY 228 - Surveying: Introduction to Survey and Building Layout**

You will receive an introduction to the basics of surveying. The course content includes horizontal measurements, levelling, angle and direction measurement, computations.

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

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Discuss principles of surveying.                                                                                                                                                                                                                                                                                                            |           |          |      |
| 2. Discuss fundamentals of horizontal and vertical measurement.                                                                                                                                                                                                                                                                                |           |          |      |
| 3. Perform typical surveying calculations.                                                                                                                                                                                                                                                                                                     |           |          |      |
| 4. Demonstrate use of surveying equipment.                                                                                                                                                                                                                                                                                                     |           |          |      |
| 5. Create a site plan for architectural working drawings.                                                                                                                                                                                                                                                                                      |           |          |      |
| 6. Lay out a building on a construction site.                                                                                                                                                                                                                                                                                                  |           |          |      |

## HIST 200 - Architectural History: London Study Abroad

You will survey London’s architectural history from ancient times to the present day, exploring geographic and cultural influences, significant periods, and specific architectural styles. You will study vernacular architecture, ancient civilizations, medieval, early modern, 19th century, modern, and postmodern architecture. You will examine the colonial impact of British architecture in Saskatchewan and the influence of heritage designations on modern urban environments.

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

| Use a checkmark (P) to rate yourself as follows for each learning outcome |                                                                                               | Competent | Learning | None |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------|----------|------|
| Competent:                                                                | I can apply this outcome without direction or supervision.                                    |           |          |      |
| Learning:                                                                 | I am still learning skills and knowledge to apply this outcome.                               |           |          |      |
| None:                                                                     | I have no knowledge or experience related to this outcome.                                    |           |          |      |
| 1.                                                                        | Discuss the geographic and cultural influences on vernacular architecture.                    |           |          |      |
| 2.                                                                        | Discuss significant architecture from prehistory through to the end of the Roman empire.      |           |          |      |
| 3.                                                                        | Discuss significant architecture from the fall of Rome through the medieval period.           |           |          |      |
| 4.                                                                        | Discuss significant architecture from the early modern period.                                |           |          |      |
| 5.                                                                        | Discuss significant architecture from the long 19th century.                                  |           |          |      |
| 6.                                                                        | Discuss significant architecture from the modern and postmodern periods.                      |           |          |      |
| 7.                                                                        | Examine the colonial influence of British architecture on the Saskatchewan built environment. |           |          |      |
| 8.                                                                        | Discuss the impact of heritage designations on the built environment in a modern city.        |           |          |      |

### HIST 221 - Architectural History: Context for Saskatchewan

You will discuss the historical shaping of Saskatchewan's built environment, considering vernacular approaches and European influences. You will also consider the heritage significance of Saskatchewan buildings.

**Credit unit(s):** 3.0  
**Prerequisites:** none  
**Corequisites:** none  
**Equivalent course(s):** HIST 220

| Use a checkmark (P) to rate yourself as follows for each learning outcome |                                                                                             | Competent | Learning | None |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------|----------|------|
| <b>Competent:</b>                                                         | I can apply this outcome without direction or supervision.                                  |           |          |      |
| <b>Learning:</b>                                                          | I am still learning skills and knowledge to apply this outcome.                             |           |          |      |
| <b>None:</b>                                                              | I have no knowledge or experience related to this outcome.                                  |           |          |      |
| 1.                                                                        | Discuss the geographic and cultural influences on vernacular architecture around the globe. |           |          |      |
| 2.                                                                        | Discuss the geographic and cultural influences on Indigenous Peoples' housing in Canada.    |           |          |      |
| 3.                                                                        | Discuss significant architecture from antiquity through to the end of the Roman empire.     |           |          |      |
| 4.                                                                        | Discuss significant architecture from the fall of Rome through the medieval period.         |           |          |      |
| 5.                                                                        | Discuss significant architecture from the early modern period.                              |           |          |      |
| 6.                                                                        | Discuss significant architecture from the long 19th century.                                |           |          |      |
| 7.                                                                        | Discuss significant architecture from the modern and postmodern periods.                    |           |          |      |
| 8.                                                                        | Discuss the influence of historic styles on Saskatchewan architecture.                      |           |          |      |
| 9.                                                                        | Examine Saskatchewan buildings for heritage significance.                                   |           |          |      |

## ADMN 258 - Project Management and Estimating

You will be introduced to processes, guidelines, and best practices used in project management. You will learn and practice effective project management skills through real-world activities, focusing on project outcomes in addition to deliverables. You will use tools, techniques, and software commonly used for project management. The course focuses on all aspects of a construction project from initiation through project completion and reflects a range of development approaches.

**Credit unit(s):** 3.0  
**Prerequisites:** none  
**Corequisites:** none  
**Equivalent course(s):** MGMT 214, MKTG 228

| Use a checkmark (P) to rate yourself as follows for each learning outcome |                                                                    | Competent | Learning | None |
|---------------------------------------------------------------------------|--------------------------------------------------------------------|-----------|----------|------|
| Competent:                                                                | I can apply this outcome without direction or supervision.         |           |          |      |
| <b>Learning:</b>                                                          | I am still learning skills and knowledge to apply this outcome.    |           |          |      |
| <b>None:</b>                                                              | I have no knowledge or experience related to this outcome.         |           |          |      |
| 1.                                                                        | Discuss the concept of project.                                    |           |          |      |
| 2.                                                                        | Explain project life cycles.                                       |           |          |      |
| 3.                                                                        | Use software to document project components.                       |           |          |      |
| 4.                                                                        | Demonstrate an understanding of successful stakeholder management. |           |          |      |
| 5.                                                                        | Use project management tools to control scope.                     |           |          |      |
| 6.                                                                        | Use project management tools to control schedule.                  |           |          |      |
| 7.                                                                        | Use project management tools to control budget.                    |           |          |      |
| 8.                                                                        | Use project management tools to control risk.                      |           |          |      |

**BLDG 301 - Building Systems: Commercial**

You will explore the preliminary design and integration of building engineering systems commonly used in large buildings. Your studies will include analysis of energy use and green building strategies. You will learn about typical systems used in commercial buildings and how to prepare preliminary mechanical, electrical, and plumbing (MEP) layouts.

**Credit unit(s):** 3.0  
**Prerequisites:** BLDG 220  
**Corequisites:** none  
**Equivalent course(s):** BLDG 221, BLDG 250

| <b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b> |                                                                                                          | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| <b>Competent:</b>                                                                | I can apply this outcome without direction or supervision.                                               |                  |                 |             |
| <b>Learning:</b>                                                                 | I am still learning skills and knowledge to apply this outcome.                                          |                  |                 |             |
| <b>None:</b>                                                                     | I have no knowledge or experience related to this outcome.                                               |                  |                 |             |
| 1.                                                                               | Analyze sustainable building strategies.                                                                 |                  |                 |             |
| 2.                                                                               | Discuss principles of lighting design for commercial buildings.                                          |                  |                 |             |
| 3.                                                                               | Examine typical electrical systems used in commercial buildings.                                         |                  |                 |             |
| 4.                                                                               | Examine typical mechanical systems used in commercial buildings.                                         |                  |                 |             |
| 5.                                                                               | Examine typical plumbing systems used in commercial buildings.                                           |                  |                 |             |
| 6.                                                                               | Sketch schematic mechanical, electrical, and plumbing layouts for commercial architectural coordination. |                  |                 |             |
| 7.                                                                               | Formulate strategies to control sound and air quality within interior spaces.                            |                  |                 |             |
| 8.                                                                               | Discuss the ergonomic design of workspaces.                                                              |                  |                 |             |
| 9.                                                                               | Compare common fire detection, suppression, alarm, and security systems.                                 |                  |                 |             |

## BLDG 302 - Building Construction: High-Performance Building Enclosures

You will examine the effects of heat, vapour, and air flow in high-performance building enclosures. You will design and build a prototype of a high-performance assembly.

**Credit unit(s):** 4.0  
**Prerequisites:** BLDG 222  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Discuss drivers for high-performance building.                                                                                                                                                                                                                                                                                              |           |          |      |
| 2. Analyze material performance in high-performance assemblies.                                                                                                                                                                                                                                                                                |           |          |      |
| 3. Analyze heat, vapour, air, and soil gas control in high-performance foundations.                                                                                                                                                                                                                                                            |           |          |      |
| 4. Analyze heat, vapour, and air control in high-performance wall assemblies.                                                                                                                                                                                                                                                                  |           |          |      |
| 5. Analyze heat, vapour, and air control in high-performance roof assemblies.                                                                                                                                                                                                                                                                  |           |          |      |
| 6. Analyze fenestration performance in high-performance assemblies.                                                                                                                                                                                                                                                                            |           |          |      |
| 7. Collaborate with teammates to construct a wall prototype.                                                                                                                                                                                                                                                                                   |           |          |      |
| 8. Evaluate a wall assembly by building a prototype.                                                                                                                                                                                                                                                                                           |           |          |      |
| 9. Present conclusions and recommendations after building a wall prototype.                                                                                                                                                                                                                                                                    |           |          |      |
| 10. Design a high-performance assembly.                                                                                                                                                                                                                                                                                                        |           |          |      |
| 11. Assemble critical material and installation information for a high-performance assembly design.                                                                                                                                                                                                                                            |           |          |      |
| 12. Prepare a technical report detailing the design of a high-performance assembly.                                                                                                                                                                                                                                                            |           |          |      |

## CNST 224 - Building Construction: Commercial Buildings 2

You will be introduced to materials and methods used in multi-storey commercial construction. You will develop the skills necessary to design and detail commercial construction assemblies to withstand the stresses of building movement.

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 232  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Examine steel frame systems.                                                                                                                                                                                                                                                                                                                |                  |                 |             |
| 2. Examine concrete frame systems.                                                                                                                                                                                                                                                                                                             |                  |                 |             |
| 3. Examine common materials used to enclose structural frames.                                                                                                                                                                                                                                                                                 |                  |                 |             |
| 4. Examine the effect of structural materials on building design.                                                                                                                                                                                                                                                                              |                  |                 |             |
| 5. Examine the relationship between building mechanical systems and structural elements.                                                                                                                                                                                                                                                       |                  |                 |             |
| 6. Use technical criteria to select construction materials.                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 7. Prepare construction details for exterior doors and exterior windows.                                                                                                                                                                                                                                                                       |                  |                 |             |
| 8. Prepare construction details for partitions.                                                                                                                                                                                                                                                                                                |                  |                 |             |
| 9. Prepare construction details for differential movement.                                                                                                                                                                                                                                                                                     |                  |                 |             |
| 10. Prepare construction details for air-barrier longevity.                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 11. Prepare construction details for transitions between assembly systems.                                                                                                                                                                                                                                                                     |                  |                 |             |

**CODE 300 - Building Code: Part 3 Applications 3**

You will continue to evaluate buildings using Part 3 of the National Building Code of Canada (NBC), exploring more complex buildings than in prerequisite courses. Your analysis of complex buildings will include classifications, fire protection requirements and egress requirements as well as requirements for firefighting, fire alarm systems and spatial separations. You will also discuss other parts of the code that impact architectural decision-making.

**Credit unit(s):** 3.0  
**Prerequisites:** CODE 201  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Classify buildings to determine construction requirements using the National Building Code of Canada (NBC).                                                                                                                                                                                                                                 |                  |                 |             |
| 2. Interpret requirements for fire separations and firewalls.                                                                                                                                                                                                                                                                                  |                  |                 |             |
| 3. Interpret fire protection requirements for rated assemblies and fire separations.                                                                                                                                                                                                                                                           |                  |                 |             |
| 4. Interpret requirements for safety within floor areas.                                                                                                                                                                                                                                                                                       |                  |                 |             |
| 5. Interpret requirements for exits.                                                                                                                                                                                                                                                                                                           |                  |                 |             |
| 6. Interpret spatial separation requirements.                                                                                                                                                                                                                                                                                                  |                  |                 |             |
| 7. Interpret requirements for vertical transportation, service facilities.                                                                                                                                                                                                                                                                     |                  |                 |             |
| 8. Discuss the roles and responsibilities associated with NBC Parts 4 through 8.                                                                                                                                                                                                                                                               |                  |                 |             |
| 9. Interpret requirements for fire alarm systems, provisions for firefighting, and emergency systems.                                                                                                                                                                                                                                          |                  |                 |             |

### DRFT 233 - Architectural Drafting: Commercial Working Drawings

You will produce a partial set of working drawings for a commercial building using Autodesk Revit. Your drawings will be based on preliminary design data, manufacturers' literature, and the National Building Code of Canada (NBC).

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 232, CODE 201  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Propose a commercial building based on preliminary sketches.                                                                                                                                                                                                                                                                                |           |          |      |
| 2. Create a model of the proposed building using Autodesk Revit.                                                                                                                                                                                                                                                                               |           |          |      |
| 3. Analyze applicable codes and standards.                                                                                                                                                                                                                                                                                                     |           |          |      |
| 4. Create floor plans and egress plans.                                                                                                                                                                                                                                                                                                        |           |          |      |
| 5. Create roof plans.                                                                                                                                                                                                                                                                                                                          |           |          |      |
| 6. Create building and wall sections.                                                                                                                                                                                                                                                                                                          |           |          |      |
| 7. Create exterior elevations and renderings.                                                                                                                                                                                                                                                                                                  |           |          |      |
| 8. Create construction details.                                                                                                                                                                                                                                                                                                                |           |          |      |
| 9. Create stair details.                                                                                                                                                                                                                                                                                                                       |           |          |      |
| 10. Prepare working drawings using commercial drafting conventions and Autodesk Revit.                                                                                                                                                                                                                                                         |           |          |      |
| 11. Revise working drawings to address deficiencies.                                                                                                                                                                                                                                                                                           |           |          |      |
| 12. Assess working drawings for continuity and coordination.                                                                                                                                                                                                                                                                                   |           |          |      |

**PROJ 228 - Applied Research: Capstone Project**

You will use the technical problem-solving process, advanced research skills, and knowledge acquired in previous courses to complete an applied research project. You will present and defend your unique solution to an architectural design problem in a written report and oral presentation.

**Credit unit(s):** 4.0  
**Prerequisites:** ADMN 104, ADMN 105, BLDG 220, CNST 222, CODE 201, DRFT 210, DSGN 232, TCOM 102, TCOM 103, (DRFT 233, DRFT 234, CODE 300)  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Analyze design criteria based on defined project parameters.                                                                                                                                                                                                                                                                                |           |          |      |
| 2. Analyze National Building Code of Canada (NBCC) requirements based on a preliminary design.                                                                                                                                                                                                                                                 |           |          |      |
| 3. Develop a proposal that reflects design criteria and addresses technical challenges.                                                                                                                                                                                                                                                        |           |          |      |
| 4. Apply advanced research skills related to a technical challenge.                                                                                                                                                                                                                                                                            |           |          |      |
| 5. Assemble short form specifications for materials.                                                                                                                                                                                                                                                                                           |           |          |      |
| 6. Evaluate products using technical criteria.                                                                                                                                                                                                                                                                                                 |           |          |      |
| 7. Prepare an estimate of materials and labour.                                                                                                                                                                                                                                                                                                |           |          |      |
| 8. Prepare a complete set of architectural working drawings.                                                                                                                                                                                                                                                                                   |           |          |      |
| 9. Assemble data to provide recommendations and conclusions.                                                                                                                                                                                                                                                                                   |           |          |      |
| 10. Generate a cohesive technical report.                                                                                                                                                                                                                                                                                                      |           |          |      |
| 11. Present a project in a professional setting.                                                                                                                                                                                                                                                                                               |           |          |      |
| 12. Defend project conclusions.                                                                                                                                                                                                                                                                                                                |           |          |      |

## ADMN 258 - Project Management and Estimating

You will be introduced to processes, guidelines, and best practices used in project management. You will learn and practice effective project management skills through real-world activities, focusing on project outcomes in addition to deliverables. You will use tools, techniques, and software commonly used for project management. The course focuses on all aspects of a construction project from initiation through project completion and reflects a range of development approaches.

**Credit unit(s):** 3.0  
**Prerequisites:** none  
**Corequisites:** none  
**Equivalent course(s):** MGMT 214, MKTG 228

| Use a checkmark (P) to rate yourself as follows for each learning outcome |                                                                    | Competent | Learning | None |
|---------------------------------------------------------------------------|--------------------------------------------------------------------|-----------|----------|------|
| Competent:                                                                | I can apply this outcome without direction or supervision.         |           |          |      |
| <b>Learning:</b>                                                          | I am still learning skills and knowledge to apply this outcome.    |           |          |      |
| <b>None:</b>                                                              | I have no knowledge or experience related to this outcome.         |           |          |      |
| 1.                                                                        | Discuss the concept of project.                                    |           |          |      |
| 2.                                                                        | Explain project life cycles.                                       |           |          |      |
| 3.                                                                        | Use software to document project components.                       |           |          |      |
| 4.                                                                        | Demonstrate an understanding of successful stakeholder management. |           |          |      |
| 5.                                                                        | Use project management tools to control scope.                     |           |          |      |
| 6.                                                                        | Use project management tools to control schedule.                  |           |          |      |
| 7.                                                                        | Use project management tools to control budget.                    |           |          |      |
| 8.                                                                        | Use project management tools to control risk.                      |           |          |      |

**BLDG 301 - Building Systems: Commercial**

You will explore the preliminary design and integration of building engineering systems commonly used in large buildings. Your studies will include analysis of energy use and green building strategies. You will learn about typical systems used in commercial buildings and how to prepare preliminary mechanical, electrical, and plumbing (MEP) layouts.

**Credit unit(s):** 3.0  
**Prerequisites:** BLDG 220  
**Corequisites:** none  
**Equivalent course(s):** BLDG 221, BLDG 250

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Analyze sustainable building strategies.                                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 2. Discuss principles of lighting design for commercial buildings.                                                                                                                                                                                                                                                                             |                  |                 |             |
| 3. Examine typical electrical systems used in commercial buildings.                                                                                                                                                                                                                                                                            |                  |                 |             |
| 4. Examine typical mechanical systems used in commercial buildings.                                                                                                                                                                                                                                                                            |                  |                 |             |
| 5. Examine typical plumbing systems used in commercial buildings.                                                                                                                                                                                                                                                                              |                  |                 |             |
| 6. Sketch schematic mechanical, electrical, and plumbing layouts for commercial architectural coordination.                                                                                                                                                                                                                                    |                  |                 |             |
| 7. Formulate strategies to control sound and air quality within interior spaces.                                                                                                                                                                                                                                                               |                  |                 |             |
| 8. Discuss the ergonomic design of workspaces.                                                                                                                                                                                                                                                                                                 |                  |                 |             |
| 9. Compare common fire detection, suppression, alarm, and security systems.                                                                                                                                                                                                                                                                    |                  |                 |             |

**CNST 234 - Building Construction: Design Build Project**

You will explore the complexities of the design-build process by creating a piece of furniture. You will design, document, construct, and present your furniture piece. Upon completion of this project, you will evaluate the implementation of the design intentions.

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 233  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Apply systematic design processes to propose a custom-designed piece of furniture.                                                                                                                                                                                                                                                          |                  |                 |             |
| 2. Prepare a prototype model.                                                                                                                                                                                                                                                                                                                  |                  |                 |             |
| 3. Select construction materials.                                                                                                                                                                                                                                                                                                              |                  |                 |             |
| 4. Prepare shop drawings.                                                                                                                                                                                                                                                                                                                      |                  |                 |             |
| 5. Prepare cost and material estimates.                                                                                                                                                                                                                                                                                                        |                  |                 |             |
| 6. Revise design proposal based on prototype and cost estimate results.                                                                                                                                                                                                                                                                        |                  |                 |             |
| 7. Demonstrate shop safety.                                                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 8. Use hand tools and power tools.                                                                                                                                                                                                                                                                                                             |                  |                 |             |
| 9. Practice construction techniques.                                                                                                                                                                                                                                                                                                           |                  |                 |             |
| 10. Construct a piece of furniture.                                                                                                                                                                                                                                                                                                            |                  |                 |             |
| 11. Present architectural information in a public setting in a professional manner.                                                                                                                                                                                                                                                            |                  |                 |             |
| 12. Evaluate furniture pieces, considering design intentions and execution of the design.                                                                                                                                                                                                                                                      |                  |                 |             |

### CODE 300 - Building Code: Part 3 Applications 3

You will assess specific construction scenarios by interpreting all relevant parts of the National Building Code of Canada (NBC). You will focus on establishing construction criteria for Part 3 buildings, exploring more complex building types than in prerequisite courses. You will also discuss other parts of the code that impact architectural decision-making.

**Credit unit(s):** 3.0  
**Prerequisites:** CODE 201  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Classify complex buildings or parts of complex buildings based on occupancy.                                                                                                                                                                                                                                                                |                  |                 |             |
| 2. Interpret fire protection requirements for rated assemblies.                                                                                                                                                                                                                                                                                |                  |                 |             |
| 3. Interpret spatial separation requirements.                                                                                                                                                                                                                                                                                                  |                  |                 |             |
| 4. Interpret requirements for vertical transportation and service facilities.                                                                                                                                                                                                                                                                  |                  |                 |             |
| 5. Evaluate buildings to establish construction limitations which prevent fire spread and collapse.                                                                                                                                                                                                                                            |                  |                 |             |
| 6. Evaluate building floor areas to establish safety limitations.                                                                                                                                                                                                                                                                              |                  |                 |             |
| 7. Design code-compliant exits.                                                                                                                                                                                                                                                                                                                |                  |                 |             |
| 8. Design code-compliant spaces that meet health and accessibility requirements.                                                                                                                                                                                                                                                               |                  |                 |             |
| 9. Discuss the roles and responsibilities associated with Parts 4, 5, 6, 7, and 8.                                                                                                                                                                                                                                                             |                  |                 |             |

**DRFT 234 - Architectural Drafting: Commercial Working Drawings for Interiors**

You will produce a partial set of working drawings for a commercial building using Autodesk Revit. Your drawings will be based on preliminary design, design data, manufacturers' literature, and the National Building Code of Canada (NBC).

**Credit unit(s):** 4.0  
**Prerequisites:** CODE 201, DSGN 234,  
**Corequisites:** DSGN 235  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Create a building model based on the preliminary design of a commercial mixed occupancy interior using Autodesk Revit.                                                                                                                                                                                                                      |           |          |      |
| 2. Analyze applicable codes and standards.                                                                                                                                                                                                                                                                                                     |           |          |      |
| 3. Create floor plans and egress plans.                                                                                                                                                                                                                                                                                                        |           |          |      |
| 4. Create wall sections and details.                                                                                                                                                                                                                                                                                                           |           |          |      |
| 5. Create interior elevations, renderings, and signage details.                                                                                                                                                                                                                                                                                |           |          |      |
| 6. Create millwork details.                                                                                                                                                                                                                                                                                                                    |           |          |      |
| 7. Create reflected ceiling plans.                                                                                                                                                                                                                                                                                                             |           |          |      |
| 8. Create flooring and furniture plans.                                                                                                                                                                                                                                                                                                        |           |          |      |
| 9. Create architectural schedules.                                                                                                                                                                                                                                                                                                             |           |          |      |
| 10. Prepare working drawings using commercial drafting conventions and Autodesk Revit.                                                                                                                                                                                                                                                         |           |          |      |
| 11. Revise working drawings to address deficiencies.                                                                                                                                                                                                                                                                                           |           |          |      |
| 12. Assess working drawings for continuity and coordination.                                                                                                                                                                                                                                                                                   |           |          |      |

## DSGN 235 - Design Studio: Commercial Mixed Occupancy 2

You will fully develop a final design proposal for a commercial mixed-occupancy interior, based on your preliminary design from DSGN 234. You will prepare and present the proposal in a professional setting.

**Credit unit(s):** 4.0  
**Prerequisites:** CODE 201, DSGN 234  
**Corequisites:** DRFT 234  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Propose a flooring design solution.                                                                                                                                                                                                                                                                                                         |           |          |      |
| 2. Propose a ceiling design solution.                                                                                                                                                                                                                                                                                                          |           |          |      |
| 3. Propose a millwork design solution.                                                                                                                                                                                                                                                                                                         |           |          |      |
| 4. Propose a furniture design solution.                                                                                                                                                                                                                                                                                                        |           |          |      |
| 5. Propose a layout for a customer-interaction space.                                                                                                                                                                                                                                                                                          |           |          |      |
| 6. Propose a wayfinding and signage design solution.                                                                                                                                                                                                                                                                                           |           |          |      |
| 7. Propose façade improvements to compliment the interior design proposal.                                                                                                                                                                                                                                                                     |           |          |      |
| 8. Assess the success of programme implementation in the final design.                                                                                                                                                                                                                                                                         |           |          |      |
| 9. Prepare a final presentation.                                                                                                                                                                                                                                                                                                               |           |          |      |
| 10. Solve a design problem in a timed setting.                                                                                                                                                                                                                                                                                                 |           |          |      |
| 11. Sketch commercial buildings using watercolour, marker, and pencil crayon.                                                                                                                                                                                                                                                                  |           |          |      |

## PROJ 228 - Applied Research: Capstone Project

You will use the technical problem-solving process, advanced research skills, and knowledge acquired in previous courses to complete an applied research project. You will present and defend your unique solution to an architectural design problem in a written report and oral presentation.

**Credit unit(s):** 4.0

**Prerequisites:** ADMN 104, ADMN 105, BLDG 220, CNST 222, CODE 201, DRFT 210, DSGN 232, TCOM 102, TCOM 103, (DRFT 233, DRFT 234, CODE 300)

**Corequisites:** none

**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Analyze design criteria based on defined project parameters.                                                                                                                                                                                                                                                                                |           |          |      |
| 2. Analyze National Building Code of Canada (NBCC) requirements based on a preliminary design.                                                                                                                                                                                                                                                 |           |          |      |
| 3. Develop a proposal that reflects design criteria and addresses technical challenges.                                                                                                                                                                                                                                                        |           |          |      |
| 4. Apply advanced research skills related to a technical challenge.                                                                                                                                                                                                                                                                            |           |          |      |
| 5. Assemble short form specifications for materials.                                                                                                                                                                                                                                                                                           |           |          |      |
| 6. Evaluate products using technical criteria.                                                                                                                                                                                                                                                                                                 |           |          |      |
| 7. Prepare an estimate of materials and labour.                                                                                                                                                                                                                                                                                                |           |          |      |
| 8. Prepare a complete set of architectural working drawings.                                                                                                                                                                                                                                                                                   |           |          |      |
| 9. Assemble data to provide recommendations and conclusions.                                                                                                                                                                                                                                                                                   |           |          |      |
| 10. Generate a cohesive technical report.                                                                                                                                                                                                                                                                                                      |           |          |      |
| 11. Present a project in a professional setting.                                                                                                                                                                                                                                                                                               |           |          |      |
| 12. Defend project conclusions.                                                                                                                                                                                                                                                                                                                |           |          |      |

## ADMN 258 - Project Management and Estimating

You will be introduced to processes, guidelines, and best practices used in project management. You will learn and practice effective project management skills through real-world activities, focusing on project outcomes in addition to deliverables. You will use tools, techniques, and software commonly used for project management. The course focuses on all aspects of a construction project from initiation through project completion and reflects a range of development approaches.

**Credit unit(s):** 3.0  
**Prerequisites:** none  
**Corequisites:** none  
**Equivalent course(s):** MGMT 214, MKTG 228

| Use a checkmark (P) to rate yourself as follows for each learning outcome |                                                                    | Competent | Learning | None |
|---------------------------------------------------------------------------|--------------------------------------------------------------------|-----------|----------|------|
| Competent:                                                                | I can apply this outcome without direction or supervision.         |           |          |      |
| <b>Learning:</b>                                                          | I am still learning skills and knowledge to apply this outcome.    |           |          |      |
| <b>None:</b>                                                              | I have no knowledge or experience related to this outcome.         |           |          |      |
| 1.                                                                        | Discuss the concept of project.                                    |           |          |      |
| 2.                                                                        | Explain project life cycles.                                       |           |          |      |
| 3.                                                                        | Use software to document project components.                       |           |          |      |
| 4.                                                                        | Demonstrate an understanding of successful stakeholder management. |           |          |      |
| 5.                                                                        | Use project management tools to control scope.                     |           |          |      |
| 6.                                                                        | Use project management tools to control schedule.                  |           |          |      |
| 7.                                                                        | Use project management tools to control budget.                    |           |          |      |
| 8.                                                                        | Use project management tools to control risk.                      |           |          |      |

## BLDG 302 - Building Construction: High-Performance Building Enclosures

You will examine the effects of heat, vapour, and air flow in high-performance building enclosures. You will design and build a prototype of a high-performance assembly.

**Credit unit(s):** 4.0  
**Prerequisites:** BLDG 222  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Discuss drivers for high-performance building.                                                                                                                                                                                                                                                                                              |           |          |      |
| 2. Analyze material performance in high-performance assemblies.                                                                                                                                                                                                                                                                                |           |          |      |
| 3. Analyze heat, vapour, air, and soil gas control in high-performance foundations.                                                                                                                                                                                                                                                            |           |          |      |
| 4. Analyze heat, vapour, and air control in high-performance wall assemblies.                                                                                                                                                                                                                                                                  |           |          |      |
| 5. Analyze heat, vapour, and air control in high-performance roof assemblies.                                                                                                                                                                                                                                                                  |           |          |      |
| 6. Analyze fenestration performance in high-performance assemblies.                                                                                                                                                                                                                                                                            |           |          |      |
| 7. Collaborate with teammates to construct a wall prototype.                                                                                                                                                                                                                                                                                   |           |          |      |
| 8. Evaluate a wall assembly by building a prototype.                                                                                                                                                                                                                                                                                           |           |          |      |
| 9. Present conclusions and recommendations after building a wall prototype.                                                                                                                                                                                                                                                                    |           |          |      |
| 10. Design a high-performance assembly.                                                                                                                                                                                                                                                                                                        |           |          |      |
| 11. Assemble critical material and installation information for a high-performance assembly design.                                                                                                                                                                                                                                            |           |          |      |
| 12. Prepare a technical report detailing the design of a high-performance assembly.                                                                                                                                                                                                                                                            |           |          |      |

## CNST 224 - Building Construction: Commercial Buildings 2

You will be introduced to materials and methods used in multi-storey commercial construction. You will develop the skills necessary to design and detail commercial construction assemblies to withstand the stresses of building movement.

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 232  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Examine steel frame systems.                                                                                                                                                                                                                                                                                                                |                  |                 |             |
| 2. Examine concrete frame systems.                                                                                                                                                                                                                                                                                                             |                  |                 |             |
| 3. Examine common materials used to enclose structural frames.                                                                                                                                                                                                                                                                                 |                  |                 |             |
| 4. Examine the effect of structural materials on building design.                                                                                                                                                                                                                                                                              |                  |                 |             |
| 5. Examine the relationship between building mechanical systems and structural elements.                                                                                                                                                                                                                                                       |                  |                 |             |
| 6. Use technical criteria to select construction materials.                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 7. Prepare construction details for exterior doors and exterior windows.                                                                                                                                                                                                                                                                       |                  |                 |             |
| 8. Prepare construction details for partitions.                                                                                                                                                                                                                                                                                                |                  |                 |             |
| 9. Prepare construction details for differential movement.                                                                                                                                                                                                                                                                                     |                  |                 |             |
| 10. Prepare construction details for air-barrier longevity.                                                                                                                                                                                                                                                                                    |                  |                 |             |
| 11. Prepare construction details for transitions between assembly systems.                                                                                                                                                                                                                                                                     |                  |                 |             |

**CODE 300 - Building Code: Part 3 Applications 3**

You will continue to evaluate buildings using Part 3 of the National Building Code of Canada (NBC), exploring more complex buildings than in prerequisite courses. Your analysis of complex buildings will include classifications, fire protection requirements and egress requirements as well as requirements for firefighting, fire alarm systems and spatial separations. You will also discuss other parts of the code that impact architectural decision-making.

**Credit unit(s):** 3.0  
**Prerequisites:** CODE 201  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| 1. Classify buildings to determine construction requirements using the National Building Code of Canada (NBC).                                                                                                                                                                                                                                 |                  |                 |             |
| 2. Interpret requirements for fire separations and firewalls.                                                                                                                                                                                                                                                                                  |                  |                 |             |
| 3. Interpret fire protection requirements for rated assemblies and fire separations.                                                                                                                                                                                                                                                           |                  |                 |             |
| 4. Interpret requirements for safety within floor areas.                                                                                                                                                                                                                                                                                       |                  |                 |             |
| 5. Interpret requirements for exits.                                                                                                                                                                                                                                                                                                           |                  |                 |             |
| 6. Interpret spatial separation requirements.                                                                                                                                                                                                                                                                                                  |                  |                 |             |
| 7. Interpret requirements for vertical transportation, service facilities.                                                                                                                                                                                                                                                                     |                  |                 |             |
| 8. Discuss the roles and responsibilities associated with NBC Parts 4 through 8.                                                                                                                                                                                                                                                               |                  |                 |             |
| 9. Interpret requirements for fire alarm systems, provisions for firefighting, and emergency systems.                                                                                                                                                                                                                                          |                  |                 |             |

### DRFT 233 - Architectural Drafting: Commercial Working Drawings

You will produce a partial set of working drawings for a commercial building using Autodesk Revit. Your drawings will be based on preliminary design data, manufacturers' literature, and the National Building Code of Canada (NBC).

**Credit unit(s):** 4.0  
**Prerequisites:** CNST 232, CODE 201  
**Corequisites:** none  
**Equivalent course(s):** none

| <p><b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b></p> <p><b>Competent:</b> I can apply this outcome without direction or supervision.<br/> <b>Learning:</b> I am still learning skills and knowledge to apply this outcome.<br/> <b>None:</b> I have no knowledge or experience related to this outcome.</p> | Competent | Learning | None |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------|
| 1. Propose a commercial building based on preliminary sketches.                                                                                                                                                                                                                                                                                |           |          |      |
| 2. Create a model of the proposed building using Autodesk Revit.                                                                                                                                                                                                                                                                               |           |          |      |
| 3. Analyze applicable codes and standards.                                                                                                                                                                                                                                                                                                     |           |          |      |
| 4. Create floor plans and egress plans.                                                                                                                                                                                                                                                                                                        |           |          |      |
| 5. Create roof plans.                                                                                                                                                                                                                                                                                                                          |           |          |      |
| 6. Create building and wall sections.                                                                                                                                                                                                                                                                                                          |           |          |      |
| 7. Create exterior elevations and renderings.                                                                                                                                                                                                                                                                                                  |           |          |      |
| 8. Create construction details.                                                                                                                                                                                                                                                                                                                |           |          |      |
| 9. Create stair details.                                                                                                                                                                                                                                                                                                                       |           |          |      |
| 10. Prepare working drawings using commercial drafting conventions and Autodesk Revit.                                                                                                                                                                                                                                                         |           |          |      |
| 11. Revise working drawings to address deficiencies.                                                                                                                                                                                                                                                                                           |           |          |      |
| 12. Assess working drawings for continuity and coordination.                                                                                                                                                                                                                                                                                   |           |          |      |

**PROJ 228 - Applied Research: Capstone Project**

You will use the technical problem-solving process, advanced research skills, and knowledge acquired in previous courses to complete an applied research project. You will present and defend your unique solution to an architectural design problem in a written report and oral presentation.

**Credit unit(s):** 4.0  
**Prerequisites:** ADMN 104, ADMN 105, BLDG 220, CNST 222, CODE 201, DRFT 210, DSGN 232, TCOM 102, TCOM 103, (DRFT 233, DRFT 234, CODE 300)  
**Corequisites:** none  
**Equivalent course(s):** none

| <b>Use a checkmark (P) to rate yourself as follows for each learning outcome</b> |                                                                                      | <b>Competent</b> | <b>Learning</b> | <b>None</b> |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| <b>Competent:</b>                                                                | I can apply this outcome without direction or supervision.                           |                  |                 |             |
| <b>Learning:</b>                                                                 | I am still learning skills and knowledge to apply this outcome.                      |                  |                 |             |
| <b>None:</b>                                                                     | I have no knowledge or experience related to this outcome.                           |                  |                 |             |
| 1.                                                                               | Propose a technical research project within the architectural technology discipline. |                  |                 |             |
| 2.                                                                               | Manage the timely completion of the project.                                         |                  |                 |             |
| 3.                                                                               | Propose preliminary findings based on primary and secondary sources.                 |                  |                 |             |
| 4.                                                                               | Propose a comprehensive technical solution based on research findings.               |                  |                 |             |
| 5.                                                                               | Create architectural documentation supportive of the research findings.              |                  |                 |             |
| 6.                                                                               | Formulate findings and conclusions based on data analysis.                           |                  |                 |             |
| 7.                                                                               | Prepare a technology report following established technical report guidelines.       |                  |                 |             |
| 8.                                                                               | Defend project conclusions in a technical presentation.                              |                  |                 |             |