MODEL ROUTE School of Engineering Technology and School: **Program Number: Applied Science** Certificate **Software Engineering Technology -Program Title:** Credential: Diploma **Artificial Intelligence Co-op** ✓ Co-Op ✓ Online 1 Semesters **Program Delivery** Fast Track Hybrid 2 Semesters Mode: ■ Non Co-op

Campus:

Intake:

Course Code

Semester 1 COMM160/161 ◆

COMP100 ❖

COMP120 ◆

COMP213 ◆

MATH175 ◆

Semester 2

COMP122 ◆

COMP123 ♦

COMP125 ❖

COMP225

COMP301♦

MATH185 �

Semester 3 COMP228 ❖

COMP229 **♦**

COMP237 ❖

COMP246 ❖

COOP321/421

GNED500◆

MATH210 ◆

Work Term 1

COOP222 ❖

Break

COMM170/171 �

GNED ❖

ONLINE

Fall 2023 and Winter 2024

Fall 2023 or Winter 2024

College Communications 1

General Education Elective

Functions and Number Systems

Winter 2024 or Summer 2024

Client-Side Web Development

UNIX/Linux Operating Systems

Web Application Development

Software Systems Design

Employment Preplacement

Linear Algebra and Statistics

Co-op Work Placement 1

to Social Action

Winter 2025

Introduction to Artificial Intelligence

Global Citizenship: from Social Analysis

Discrete Mathematics

Summer 2024

Java Programming

Fall 2024

Introduction to Database Concepts

Software Requirements Engineering

College Communications 2

Web Interface Design

Programming 1

Programming 2

Course Title

Software Engineering Fundamentals

Department Code:	3515
	3 Semesters
Duration :	2 Semesters
	1 Semesters

Lab

Hours

2

2

4

2

2

2

2

2

2

2

2

2

2

Lecture

Hours

3

2

2

3

3

3

2

2

2

2

2

3

2

2

2

2

1

3

2

Co/Pre Requisite

(Course Code)

P=COMM160 or

COMM161

P=COMP100

COMP213

P=COMP100

P=COMP123

COMP125

COMP225

C=MATH210 P=COMP123 and

MATH175 and MATH185

P=COMP123 and

P=COMM170/171 minimum"C" grade;

P=MATH175 and

MATH185

CGPA 2.5; 80% year 1 courses completed

P=COMP123 and

P=COMP100 and

P=COMP100, and,

COMP120 or COMP391

3442

Degree

Total

Course Hrs

(Lab +

Lecture +

Field)

3

4

4

4

3

3

3

4

4

4

4

4

3

4

4

4

4

1

3

4

Total

Total

Total

☐ Centennial College Certificate

Weeks

(14)

14

14

14

14

14

14

14

14

14

14

14

14

14

14

14

14

14

14

14

14

Total Hours

42

56

56

56

42

42

294

42

56

56

56

56

56

42 364

56

56

56

56

14

42

56

336

☐ Graduate Certificate

✓ Advanced Diploma

4 Semesters

✓ 6 Semesters

8 Semesters

Field

Placement

Hours

Course

Delivery

ODL=Online

BLD=Blended

HYB = Hybrid

ODL

Semester 4	Summer 2025							
COMP214 ♦	Advanced Database Concepts	P=COMP122	2	2	ODL	4	14	56
COMP216 �	Networking for Software Developers	P=COMP100	2	2	ODL	4	14	56
COMP247 �	Supervised Learning	P= COMP228 and COMP237 and MATH210	2	2	ODL	4	14	56
COMP254 �	Data Structures and Algorithms	P=COMP228	2	2	ODL	4	14	56
COMP311 �	Software Testing and Quality Assurance	P=COMP123	2	2	ODL	4	14	56
ENGL253 �	Advanced Business Communications	P=COMM170 or COMM171		3	ODL	3	14	42
Work Term 2	Fall 2025						Total	322
COOP331 ♦	Co-op Work Placement 2				ODL			
COO! 331 V	co op work i lacement z				ODL			
Semester 5	Winter 2026							
CNET307�	IT Project Management	P=COMM170 or COMM171, and, CNET229 or COMP225	1	2	ODL	3	14	42
COMP255�	Business and Entrepreneurship for Software Engineering Technology	P=COMP225	3		ODL	3	14	42
COMP258�	Neural Networks	P=COMP247 and COMP254	2	2	ODL	4	14	56
COMP261�	Al Ethics and Data Governance	P=COMP247 and COMP254	1	2	ODL	3	14	42
COMP264◆	Cloud Machine Learning	P=COMP247	2	1	ODL	3	14	42
COMP304 ♦	Mobile Apps Development	P=COMP228	2	2	ODL	4	14	56
							Total	280
Work Term 3	Summer 2026							
COOP332 �	Co-op Work Placement 3				ODL			
	F. II 2026							
Semester 6	Fall 2026							
COMP251�	Big Data Tools for Machine Learning	P=COMP247 and COMP254	2	2	ODL	4	14	56
COMP257�	Unsupervised and Reinforcement Learning	P=COMP247 and COMP254	2	2	ODL	4	14	56
COMP262�	Natural Language Processing and Recommender Systems	P=COMP247 and COMP254 and COMP258	2	2	ODL	4	14	56
COMP263 ♦	Deep Learning	P= COMP258	2	2	ODL	4	14	56
COMP313�	Software Development Project 2	P=COMP231 and COMP303 and COMP304, or, COMP231 and COMP381, or, COMP231 and COMP305 and COMP391, or, COMP246 and COMP258	2	2	ODL	4	14	56
GNED�	General Education Elective			3	ODL	3	14	42
							Total	322
Minimum Grade	Required: D					Total Brown	m Hours	1918
C = Co-Requisite; P	' = Pre-Requisite					Total Progra	am Hours:	1918
Notes:	y be offered in one of the following m	odalities (Online, Hybri	d or Blende	ed)				

Semester 4

Summer 2025