MODEL ROUTE

School:	School of Engineering Technology and Applied Science	**Program Number:**	3442	

Program Title: Software Engineering Technology - Artificial Intelligence Co-op

Credential:
☐ Certificate ☐ Graduate Certificate ☐ Degree
☐ Diploma ☑ Advanced Diploma

Program Delivery Mode:
☑ Co-Op ☑ Online
☐ Fast Track ☐ Hybrid
☐ Non Co-op

Duration:
☐ 2 Semesters ☐ 3 Semesters
☐ 4 Semesters ☑ 6 Semesters
☐ 8 Semesters

Campus: ONLINE

Intake: Fall 2020 and Winter 2021

Course Code	Course Title	Co/Pre Requisite (Course Code)	Lab Hours	Lecture Hours	Field Placement Hours	Course Delivery ODL=Online BLD=Blended HYB = Hybrid	Total Course Hrs (Lab + Lecture + Field)	Weeks (14)	Total Hours
Semester 1	**Fall 2020 or Winter 2021**								
COMM160/161 ◈	College Communications 1			3		ODL	3	14	42
COMP100 ◈	Programming 1		2	2		ODL	4	14	56
COMP120 ◈	Software Engineering Fundamentals		2	2		ODL	4	14	56
COMP213 ◈	Web Interface Design		4			ODL	4	14	56
GNED ◈	General Education Elective			3		ODL	3	14	42
MATH175 ◈	Functions and Number Systems		1	2		ODL	3	14	42
							Total		294
Semester 2	**Winter 2021 or Summer 2021**								
COMM170/171 ◈	College Communications 2	P=COMM160/161		3		ODL	3	14	42
COMP122 ◈	Introduction to Database Concepts		2	2		ODL	4	14	56
COMP123 ◈	Programming 2	P=COMP100	2	2		ODL	4	14	56
COMP125 ◈	Client-Side Web Development	P=COMP100, COMP213	2	2		ODL	4	14	56
COMP225◈	Software Engineering Methodologies 1	P=COMP100, and, COMP120 or COMP391	2	2		ODL	4	14	56
COMP301◈	UNIX/Linux Operating Systems	P=COMP100	2	2		ODL	4	14	56
MATH185 ◈	Discrete Mathematics			3		ODL	3	14	42
							Total		364
Break (Summer 2021)									
Semester 3	**Fall 2021**								
COMP228 ◈	Java Programming	P=COMP123	2	2		ODL	4	14	56
COMP229 ◈	Web Application Development	P=COMP123 and COMP125	2	2		ODL	4	14	56
COMP237 ◈	Introduction to Artificial Intelligence	C=MATH210 P=COMP123 and MATH175 and MATH185	2	2		ODL	4	14	56
COMP246 ◈	Software Systems Design	P=COMP123 and COMP225	2	2		ODL	4	14	56
COOP321/421◈	Employment Preplacement	P=COMM170/171 minimum"C" grade; CGPA 2.5; 80% year 1 courses completed		1		ODL	1	14	14
GNED500◈	Global Citizenship: from Social Analysis to Social Action			3		ODL	3	14	42
MATH210 ◈	Linear Algebra and Statistics	P=MATH175 and MATH185	2	2		ODL	4	14	56
							Total		336
Work Term 1 (Winter 2022)									
COOP222 ◈	Co-op Work Placement 1					ODL			
Semester 4	**Summer 2022**								
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
							Total		322
Work Term 2 (Fall 2022)									
COOP331 ◈	Co-op Work Placement 2					ODL			
Semester 5	**Winter 2023**								

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◆	AI 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 2023)									
COOP332 ◆	Co-op Work Placement 3					ODL			
Semester 6	**Fall 2023**								
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	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 Program Hours:		**1918**

C = Co-Requisite; P = Pre-Requisite

Notes:
◆This course may be offered in one of the following modalities (Online, Hybrid or Blended)