MODEL ROUTE

School:	School of Engineering Technology and Applied Science	Program Number:	3442		
Program Title:	**Software Engineering Technology - Artificial Intelligence Co-op**	**Credential:**	☐ Certificate ☐ Diploma	☐ Graduate Certificate ☑ Advanced Diploma	☐ Degree ☐ Centennial College Certificate
Program Delivery Mode:	☑ Co-Op ☑ Online ☐ Fast Track ☐ Hybrid ☐ Non Co-op	**Duration :**	☐ 1 Semesters ☐ 2 Semesters ☐ 3 Semesters	☐ 4 Semesters ☑ 6 Semesters ☐ 8 Semesters	
Campus:	**ONLINE**	**Department Code:**	**3515**		
Intake:	**Fall 2022 and Winter 2023**				

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 2022 or Winter 2023**								
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			3		ODL	3	14	42
							Total		294
Semester 2	**Winter 2023 or Summer 2023**								
COMM170/171◈	College Communications 2	P=COMM160 or COMM161		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 and COMP213	2	2		ODL	4	14	56
COMP225◈	Software Requirements Engineering	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 2023**								
Semester 3	**Fall 2023**								
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
COOP421◈◈	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 2024**								
COOP222 ◈	Co-op Work Placement 1					ODL			

Semester 4	**Summer 2024**									
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 2024**									
COOP331 ◈	Co-op Work Placement 2						ODL			
Semester 5	**Winter 2025**									
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 2025**									
COOP332 ◈	Co-op Work Placement 3						ODL			
Semester 6	**Fall 2025**									
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
COMP385 ◈	Artificial Intelligence Capstone Project	P=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)

◈◈ This course may be offered in a compressed delivery 2 hours per week for a 7 week period.