MODEL ROUTE

School:	School of Engineering Technology and Applied Science	**Program Number:**	3412

Program Title:	**Software Engineering Technology - Artificial Intelligence**	**Credential:**

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

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

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

Campus:	**PROGRESS**	**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			3	14	42
COMP100	Programming 1		2	2			4	14	56
COMP120	Software Engineering Fundamentals		2	2			4	14	56
COMP213	Web Interface Design		4				4	14	56
GNED◈	General Education Elective			3		ODL	3	14	42
MATH175	Functions and Number Systems			3			3	14	42
							Total		294
Semester 2	**Winter 2023 or Summer 2023**								
COMM170/171	College Communications 2	P=COMM160 or COMM161		3			3	14	42
COMP122	Introduction to Database Concepts		2	2			4	14	56
COMP123	Programming 2	P=COMP100	2	2			4	14	56
COMP125	Client-Side Web Development	P=COMP100 and COMP213	2	2			4	14	56
COMP225◈	Software Requirements Engineering	P=COMP100, and, COMP120 or COMP391	2	2		HYB	4	14	56
COMP301	UNIX/Linux Operating Systems	P=COMP100	2	2			4	14	56
MATH185	Discrete Mathematics			3			3	14	42
							Total		364
Break	**Summer 2023**								
Semester 3	**Fall 2023**								
COMP228	Java Programming	P=COMP123	2	2			4	14	56
COMP229	Web Application Development	P=COMP123 and COMP125	2	2			4	14	56
COMP237	Introduction to Artificial Intelligence	C=MATH210 P=COMP123 and MATH175 and MATH185	2	2			4	14	56
COMP246	Software Systems Design	P=COMP123 and COMP225	2	2			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			4	14	56
							Total		336
Work Term 1	**Winter 2024**								
COOP222	Co-op Work Placement 1								

Semester 4	Summer 2024								
COMP214	Advanced Database Concepts	P=COMP122	2	2				4	14	56
COMP216	Networking for Software Developers	P=COMP100	2	2				4	14	56
COMP247	Supervised Learning	P= COMP228 and COMP237 and MATH210	2	2				4	14	56
COMP254	Data Structures and Algorithms	P=COMP228	2	2				4	14	56
COMP311	Software Testing and Quality Assurance	P=COMP123	2	2				4	14	56
ENGL253	Advanced Business Communications	P=COMM170 or COMM171		3				3	14	42
								Total		322
Work Term 2	Fall 2024								
COOP331	Co-op Work Placement 2								
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				4	14	56
COMP261	AI Ethics and Data Governance	P=COMP247 and COMP254	1	2				3	14	42
COMP264	Cloud Machine Learning	P=COMP247	2	1				3	14	42
COMP304	Mobile Apps Development	P=COMP228	2	2				4	14	56
								Total		280
Work Term 3	Summer 2025								
COOP332	Co-op Work Placement 3								
Semester 6	Fall 2025								
COMP251	Big Data Tools for Machine Learning	P=COMP247 and COMP254	2	2				4	14	56
COMP257	Unsupervised and Reinforcement Learning	P=COMP247 and COMP254	2	2				4	14	56
COMP262	Natural Language Processing and Recommender Systems	P=COMP247 and COMP254	2	2				4	14	56
COMP263	Deep Learning	P= COMP258	2	2				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		HYB		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)