MODEL ROUTE

School:	School of Engineering Technology and Applied Science	Program Number:	3402

Program Title:	**Software Engineering Technology - Artificial Intelligence**	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 2021 and Winter 2022**

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 2021 or Winter 2022**								
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 2022 or Summer 2022**								
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 2022**								
Semester 3	**Fall 2022**								
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
GNED500	Global Citizenship: from Social Analysis to Social Action			3			3	14	42
MATH210	Linear Algebra and Statistics	P=MATH175 and MATH185	2	2			4	14	56
							Total		322
Semester 4	**Winter 2023**								
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

Course Code	Course Name	Prerequisites					Modality	Credits	Weeks	Hours
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
Break	**Summer 2023**									
Semester 5	**Fall 2023**									
CNET307◆	IT Project Management	P=COMM170 or COMM171, and, CNET229 or COMP225	1	2			ODL	3	14	42
COMP251	Big Data Tools for Machine Learning	P=COMP247 and COMP254	2	2				4	14	56
COMP255◆	Business and Entrepreneurship for Software Engineering Technology	P=COMP225	3				ODL	3	14	42
COMP257	Unsupervised and Reinforcement Learning	P=COMP247 and COMP254	2	2				4	14	56
COMP258	Neural Networks	P=COMP247 and COMP254	2	2				4	14	56
COMP304	Mobile Apps Development	P=COMP228	2	2				4	14	56
									Total	308
Semester 6	**Winter 2024**									
COMP261	AI Ethics and Data Governance	P=COMP247 and COMP254	1	2				3	14	42
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
COMP264	Cloud Machine Learning	P = COMP247	2	1				3	14	42
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
EMPS102	Employment Skills 2	P=COMM170 or COMM171		2				2	14	28
GNED◆	General Education Elective			3			ODL	3	14	42
									Total	322
Minimum Grade Required: D										
								Total Program Hours:		**1932**

C = Co-Requisite; P = Pre-Requisite

Notes:

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