MODEL ROUTE

School:	School of Engineering Technology and Applied Science	**Program Number:**	3419

Program Title:	**Software Engineering Technology Co-op**	**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			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**								
COMP214	Advanced Database Concepts	P=COMP122	2	2			4	14	56
COMP228	Java Programming	P=COMP123	2	2			4	14	56
COMP229	Web Application Development	P=COMP123 and COMP125	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
ENGL253	Advanced Business Communications	P=COMM170 or COMM171		3			3	14	42
GNED500	Global Citizenship: from Social Analysis to Social Action			3			3	14	42
							Total		322
Work Term 1	**Winter 2023**								
COOP222	Co-op Work Placement 1								
Semester 4	**Summer 2023**								
COMP212	Programming 3	P=COMP123	2	2			4	14	56
COMP216	Networking for Software Developers	P=COMP100	2	2			4	14	56
COMP254	Data Structures and Algorithms	P=COMP228	2	2			4	14	56
COMP304	Mobile Apps Development	P=COMP228	2	2			4	14	56
COMP311	Software Testing and Quality Assurance	P=COMP123	2	2			4	14	56
MATH210	Linear Algebra and Statistics	P=MATH175 and MATH185	2	2			4	14	56
							Total		336
Work Term 2	**Fall 2023**								
COOP331	Co-op Work Placement 2								
Semester 5	**Winter 2024**								

Code	Title	Prerequisites					Modality			
CNET307◈	IT Project Management	P=COMM170 or COMM171, and, CNET229 or COMP246	1	2			ODL	3	14	42
COMP231◈	Software Development Project 1	P=COMP228 and COMP229 and COMP246	2	2			HYB	4	14	56
COMP303	Java EE Programming	P=COMP214 and COMP228	2	2				4	14	56
COMP308	Emerging Technologies	P=COMP228 and COMP229	2	2				4	14	56
COMP321◈	Enterprise Systems Integration	P=COMP246	2	2			HYB	4	14	56
ELECT1	Technical Elective 1		2	1				3	14	42
									Total	308
Work Term 3	**Summer 2024**									
COOP332	Co-op Work Placement 3									
Semester 6	**Fall 2024**									
COMP255◈	Business and Entrepreneurship for Software Engineering Technology	P=COMP225	3				ODL	3	14	42
COMP306	API Engineering and Cloud Computing	P=COMP212 and COMP229	2	2				4	14	56
COMP307	Software Security	P=COMP212 and COMP228	2	2				4	14	56
COMP309	Data Warehousing and Predictive Analytics	P=COMP214	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				3	14	42
									Total	308
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)

Technical Electives:

COMP367	DevOps Implementation		2	1				3	14	42
COMP377	AI for Software Developers		2	1				3	14	42
COMP387◈	Clinical Workflow and IT Solutions		2	1			ODL	3	14	42