

## CST Program Matrix (Prior to September 2022)

<b>First Year - Level 1</b>			<b>Credits</b>
	COMM 1116	Business Communications 1	4.0
	COMP 1100	CST Program Fundamentals	1.0
	COMP 1113	Applied Mathematics	4.0
	COMP 1510	Programming Methods	7.0
	COMP 1537	Web Development 1	4.0
	COMP 1712	Business Analysis and System Design	4.0
	COMP 1800	Projects 1	4.0
and			
<b>Level 1B - January term (5 weeks, April - May)</b>			
Students that begin Level 1 in January will complete these courses following Level 1.			
	COMP 2537	Web Development 2*	1.5
	COMP 2800	Projects 2*	4.5
*Optional for students who complete one term of co-op.			
<b>First Year - Level 2</b>			<b>Credits</b>
	COMM 2216	Business Communications 2	4.0
	COMP 2121	Discrete Mathematics	4.0
	COMP 2510	Procedural Programming	5.0
	COMP 2522	Object Oriented Programming 1	5.0
	COMP 2714	Relational Database Systems	5.0

	COMP 2721	Computer Organization/Architecture	4.0
and			
<b>Level 2B - January term (5 weeks, April - May)</b>			
Students that begin Level 2 in January will complete these courses following Level 2.			
	COMP 2537	Web Development 2*	1.5
	COMP 2800	Projects 2*	4.5
*Optional for students who complete one term of co-op.			
<b>Note:</b> At the end of the first year, students apply to a specialty option.			
<b>Second Year - Level 3</b>			<b>Credits</b>
	COMP 3522	Object Oriented Programming 2	6.0
	COMP 3717	Mobile Development with Android Technologies*	4.0
	COMP 3721	Introduction to Data Communications	4.0
	COMP 3760	Algorithm Analysis and Design	4.0
	MATH 3042	Applied Probability and Statistics	4.0
and			
<b>Level 3B - January term (5 weeks, April - May)</b>			
Students that begin Level 3 in January will complete COMP 3800 following Level 3.			
	COMP 3800	Projects Practicum 1**	5.0
*Not required for the Digital Processing Option			
**Not required for the Tech Entrepreneur Option.			
and			
<b>Artificial Intelligence and Machine Learning Option:</b>			
	COMP 3981	Introduction to Artificial Intelligence	5.0

	or		
<b>Client/Server Option:</b>			
	COMP 3940	Client/Server Systems Development Fundamentals	5.0
	or		
<b>Cloud Computing Option:</b>			
	COMP 3962	Cloud Computing Platforms	5.0
	or		
<b>Combined (Web and Mobile) Option:</b>			
	COMP 3975	Server-Side Web Scripting	5.0
	or		
<b>Database Option:</b>			
	COMP 3920	Database Systems 1	5.0
	or		
<b>Data Communications and Internetworking Option:</b>			
	COMP 3980	Network Protocol Design and Implementation	5.0
	or		
<b>Digital Processing Option:</b>			
	COMP 3773	Programming for Performance	4.0
	COMP 3931	Digital Image, Video and Audio Fundamentals	5.0
	or		
<b>Information Systems Option:</b>			
	COMP 3910	Full-Stack Development for Enterprise Systems	5.0

	or		
<b>Predictive Analytics Option</b>			
	COMP 3948	Predictive Modelling	5.0
	or		
<b>Programming Paradigms Option</b>			
	COMP 3958	Functional Programming	5.0
	or		
<b>Tech Entrepreneur Option</b>			
	COMP 3942	Ideation	5.0
	or		
<b>Technical Programming Option:</b>			
	COMP 3951	Selected Topics in Application Development	5.0
<b>Second Year - Level 4</b>			<b>Credits</b>
<b>Common courses:</b>			
	BLAW 3600	Computers and the Law*	4.0
	COMP 4537	Internet Software Architecture*	4.0
	COMP 4735	Operating Systems	5.0
and			
<b>January term:</b> Students completing Level 4 in January take COMP 3800 in Level 4 (15 weeks) and COMP 4800 in Level 4B (5 weeks, April - May).			
	COMP 3800	Projects Practicum 1**	5.0

	COMP 4800	Projects Practicum 2**	5.0
	or		
<b>September term:</b> Students completing Level 4 in September take COMP 4800 in Level 4 (15 weeks).			
	COMP 4800	Projects Practicum 2**	5.0
*Not required for the Information Systems Option. **Not required for the Tech Entrepreneur Option.			
and			
<b>Artificial Intelligence and Machine Learning Option:</b>			
	COMP 4983	Machine Learning	5.0
	COMP 4989	Selected Topics in Artificial Intelligence and Machine Learning	5.0
	or		
<b>Client/Server Option:</b>			
	COMP 4941	Client/Server Systems Quality Control	5.0
	COMP 4945	Distributed Software Architectures	5.0
	or		
<b>Cloud Computing Option:</b>			
	COMP 4964	DevOps Engineering	5.0
	COMP 4968	Serverless Computing and Microservices	5.0
	or		
<b>Combined (Web and Mobile) Option:</b>			
	COMP 4976	Web Application Development with Microsoft Technologies	5.0
	COMP 4977	Mobile Development with Apple Technologies	5.0

	or		
<b>Database Option:</b>			
	COMP 4921	Database Systems 2	5.0
	COMP 4925	Selected Topics in Database Systems	5.0
	or		
<b>Data Communications and Internetworking Option:</b>			
	COMP 4981	Advanced Network Applications Development	5.0
	COMP 4985	Selected Topics in Data Communications/Internetworking	5.0
	or		
<b>Digital Processing Option:</b>			
	COMP 4932	Selected Topics in Digital Processing	5.0
	COMP 4995	Gaming Systems	5.0
	or		
<b>Information Systems Option:</b>			
	COMP 4870	Intranet Planning and Development	7.0
	COMP 4911	Developing Enterprise Service	5.0
	COMP 4915	System Administration	5.0
	or		
<b>Predictive Analytics Option</b>			
	COMP 4948	Predictive Machine Learning	5.0
	COMP 4949	Big Data Analytics Methods	5.0
	or		

<b>Programming Paradigms Option</b>			
	COMP 4958	Concurrent Programming	5.0
	COMP 4959	Selected Application of Programming Paradigms	5.0
	or		
<b>Tech Entrepreneur Option:</b>			
	COMP 4943	UX/UI Design and Prototyping	5.0
	COMP 4944	Minimal Viable Product (MVP)	5.0
	COMP 4946	Business Plan	6.0
	MKTG 4919	Pitching and Positioning	4.0
	or		
<b>Technical Programming Option:</b>			
	COMP 4952	HCI for Application Development	5.0
	COMP 4956	Software Engineering	5.0
<b>Co-op work term courses (competitive entry)</b>			<b>Credits</b>
To be completed after Level 2 and prior to Level 3, commencing in January or May.			
	COMP 2990	Cooperative Education Workterm 1	16.0
	COMP 3990	Cooperative Education Workterm 2	16.0
<b>Total Credits:</b>			<b>121.0</b>