

# Computer Programming (CPP)

Version 23

Published 4/11/2024 by **Bruna Aparecida Alves de Lima** Last updated 5/12/2025 1:34 PM by **Mary-Jo Sallu**

## Program Overview:

This two-year diploma program prepares you with the skills and knowledge to begin your career as a programmer. As a leader in developing relevant programs, we have the largest offering of computer studies programs in the province. Through a variety of practical and theoretical courses, you will gain skills in mobile development, web development and distributed programming techniques and database administration. You will also learn about security and a variety of operating systems including Windows, UNIX, Linux and IBM Business Computing. Graduates of this program will enter their industry with programming and communications skills suitable for employment.

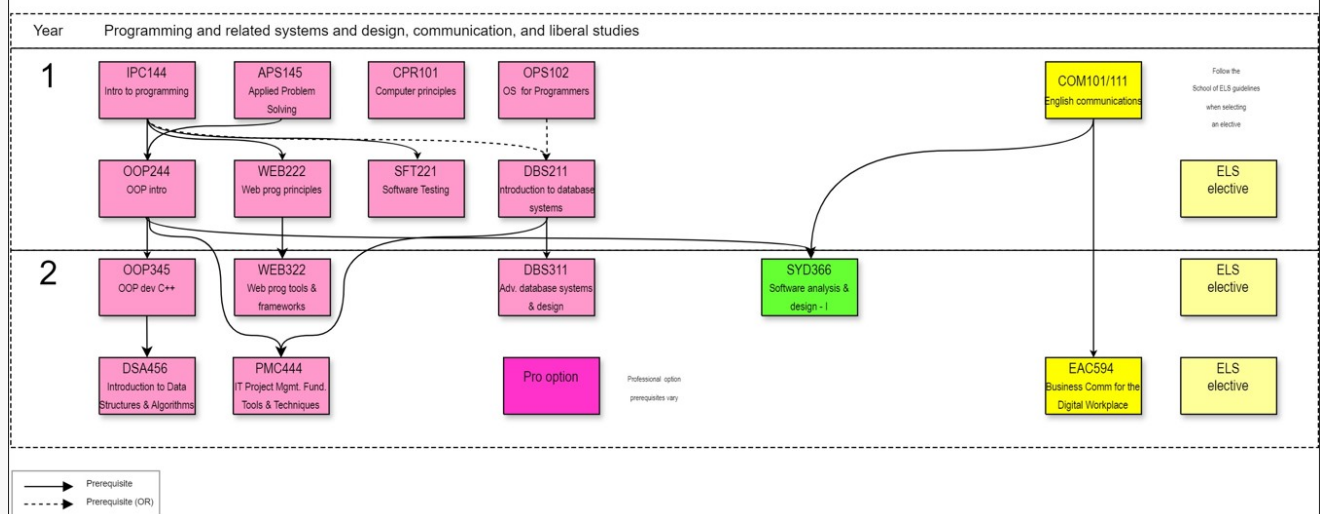
**Part-time option is available >**

Program Code:	CPP
Credential Awarded:	Diploma
Campus:	Newnham
Duration:	2 years (4 academic semesters)
Starts In:	January, May, and September

## Program Map

### Computer Programming (CPP) Curriculum

Entry Date: September 2023 or later



## Program Curriculum

## Computer Programming (CPP)

Semester	Course Code	Course Name	Pre-requisite	Delivery Mode
1	APS145	Applied Problem Solving	None	In Person
1	IPC144	Introduction to Programming Using C	None	In Person
1	OPS102	Operating Systems for Programmers	None	In Person
1	CPR101	Computer Principles for Programmers	None	In Person
1	COM101	Communicating Across Contexts	EAC149, EAP500, COM095, ELI Level 8, or placement based on Seneca College English Skills Assessment	In Person
2	OOP244	Introduction to Object Oriented Programming	IPC144 and APS145	In Person
2	WEB222	Web Programming Principles	IPC144	In Person
2	SFT221	Software Testing	IPC144	In Person
2	DBS211	Introduction to Database Systems	IPC144 or ULI101	In Person
2		<b>General Education Option</b>		
3	OOP345	Object-Oriented Software Development Using C++	OOP244	FASET Flex
3	DBS311	Advanced Database Systems and Design	DBS211	FASET Flex
3	WEB322	Web Programming Tools and Frameworks	WEB222	FASET Flex
3	SYD366	Requirements Gathering Using OO Models	OOP244 and COM101/111	FASET Flex
3		<b>General Education course</b>	None	Online
4	EAC594	Business Report Writing	COM101 /111 or equivalent	FASET Flex
4	DSA456	Introduction to Data Structures & Algorithms	OOP345	FASET Flex
4	PMC444	IT Project Management Fundamentals Tools and Techniques	DBS211 and OOP244	FASET Flex
4		<b>General Education Option</b>		
4		<b>Professional Option</b>		Online

## Professional Options - Winter 2025

Semester	Course Code	Course Name	Pre-requisite	Delivery Mode
4	DBS501	Stored Procedures Using Oracle's PL/SQL	DBS311	Online
4	GAM536	Game Content Creation	OOP345	Online
4	MAP523	Mobile App Development - iOS	OOP345 and WEB322	Online
4	MAP524	Mobile App Development - Android	OOP345	Online
4	DEN502	Digital Entrepreneurship for Programmers	EAC594	Online
4	UNIX511	UNIX Systems Programming	OOP345 and OPS102	Online
4	ELA521	Ethics, Law and Application Development	DBS211	Online
4	WEB422	Web Programming for Apps and Services	WEB322 and OOP345	Online

## Program Learning Outcomes

As a graduate, you will be prepared to reliably demonstrate the ability to:

- Identify, analyze, develop, implement, verify and document the requirements for a computing environment.
- Contribute to the diagnostics, troubleshooting, documenting and monitoring of technical problems using appropriate methodologies and tools.
- Implement and maintain secure computing environments.
- Implement robust computing system solutions through validation testing that aligns with industry best practices.
- Communicate and collaborate with team members and stakeholders to ensure effective working relationships.
- Select and apply strategies for personal and professional development to enhance work performance.
- Apply project management principles and tools when working on projects within a computing environment.
- Adhere to ethical, legal, and regulatory requirements and/or principles in the development and management of computing solutions and systems.

#### **Degree Pathway Option**

- **Transfer Pathway into Honours Bachelor of Technology - Software Development (BSD)**

#### **Related Programs**

Computer Systems Technician

Computer Programming & Analysis

Computer Systems Technology

User Experience (UX) Writing

**To learn more about the program, please visit the school's page.** [School of Computer Programming & Analysis](#)

tags : cpp, scpa