

## Software / Full Stack Development

This program will allow participants the opportunity to focus on the basics of software development on both the front end and back end. Participants will have the ability to program using Object Oriented Programming principles in an established and well utilized programming language. Participants will also understand database theory and Application Programming Interfaces (API). The end of the program will also give participants the opportunity to connect with and engage in a Work Integrated Learning (WIL) project with industry.

### Software Programming Basics

Using standard development environments participants will use data structure elements, variables, logic and conditional branches. This will enable participants to demonstrate knowledge in developing simple applications using an Object Oriented Programming approach.

### Database Theory

Participants will be able to describe relational databases and their usage within a business context. They will demonstrate the ability to employ SQL for database calls while managing and retrieving data through SQL constructs.

### Web Programming Basics

Participants will apply web programming fundamentals, such as HTML, CSS, JavaScript and React, to create websites and user interfaces. Participants will be introduced to API's and their usage in web development projects.

### Full Stack Work Integrated Learning

Participants strengthen their skills and their knowledge of software development by developing a Work Integrated Learning (WIL) project. Research, client communication, and documentation skills are practiced and refined. Advanced elements of software design and development are put into practice. This course centres on a WIL project that summatively incorporates program learning.