

**Course:** Computer Science 11

**Course Format:** Online

**Credits:** 4

**Description:** CS 11 is a mathematically orientated first level computer science and programming course designed for students to develop computational thinking and abstract problem-solving skills. It is applicable for students entering most post-secondary fields and well as the workforce.

Content Learning Standards:

- Ways to represent basic data types
- Basic programming concepts
- Variable scope
- Ways to construct and evaluate logical statements
- Use of control flow to manipulate program execution
- Development of algorithms to solve problems in multiple ways
- Techniques for operations on and searching of arrays and lists
- Problem decomposition through modularity
- Uses of computing for financial analysis
- Ways to model mathematical problems

Curricular Competency Development Learning Standards:

- Reasoning and modelling
- Understanding and solving
- Communicating and representing
- Connecting and reflecting

For detailed information on the curriculum, please see:

<https://curriculum.gov.bc.ca/curriculum/mathematics/11/computer-science>

After completion of CS 11, this course leads to Computer Science 12 (CS 12) where students continue to develop their understandings of more advanced computational concepts and numerical techniques. Skills developed in CS courses are applicable to many post-secondary areas, employment openings, and direct technology and engineering fields.

**Recommended Prerequisite:** Mathematics 10

**Resources:** Online course materials are provided. Personal computer and internet connection are required (not supplied by SAIL). Please note: online course platform is not fully compatible with tablets or smartphones.

