

#### **PROG 1700**

# Logic and Programming I

Course Weight: 90.00

## **Course Description**

This course provides an introduction to the fundamentals of logic and computer programming, and the roles they play in creating software solutions for any problem. Logic is used to break down software instructions into manageable tasks, to allow for comprehensive problem-solving using computer code. Programming is the act of creating the detailed instructions used by computers to perform any specified task or required behaviour. This course covers the process of creating logical designs and implementing them as programmatic code to build computer software programs.

#### Rationale

Logic and problem-solving are two of the core skills required to succeed in the world of computers. All areas of IT are exposed to, and can benefit from, use of programming concepts and the skills they teach.

## Prerequisite(s):

None

# Corequisite(s):

None

## **Learning Outcomes**

Learners are required to successfully complete each course outcome. In keeping with NSCC's approach to portfolio learning, learners will have demonstrated the ability to:

- 1. Translate logic principles into programming code to solve problems.
- 2. Store data inside the various data structures of a software application to achieve any specified task.
- 3. Build conditional tests in a software application to enact any required program behaviours.
- **4.** Use modular design principles to create software applications with increased efficiency and maintainable code.
- 5. Design and implement iteration blocks within a software application to achieve efficiency of repetitive tasks.
- **6.** Design applications to acquire input from various sources and to provide output to a software application user.

#### Grading

The pass for this course is 60%.

## **Required Supplies**

See instructor for details.

# **Other Course Notes**

It is the responsibility of the student to review and understand all Nova Scotia Community College policies, most specifically the Student Code of Conduct, Academic Integrity, Student Appeals, Use of Copyright Materials, and Academic Accommodation policies.

Policies directly applicable to students are referenced in the student handbook. The policies and procedures can be found on the College website: <a href="https://www.nscc.ca/about\_nscc/policies\_procedures/index.asp">https://www.nscc.ca/about\_nscc/policies\_procedures/index.asp</a>

If you have questions about policies and/or procedures, you are encouraged to ask Faculty, your Academic Chair or Staff at Student Services.

#### Workplan

PROG 1700 2017.2 Last Modified Date 05/29/2017



Official

# **Course Outline**

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A workplan for this course is attached and will be reviewed by your faculty member (s) within the first week of class study.

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