

PROG 2007**Programming II****Course Weight:** 60.00**Course Description**

This course introduces learners to the C programming language, focusing on the various uses of pointers, efficient memory management and interfacing with the standard C libraries. The course will also highlight the differences between the C language and other common programming languages that learners may be familiar with, in terms of syntax and coding practices.

Rationale

The modern concept of the Internet of Things (IoT) has introduced many smart devices employing sophisticated modern microcontrollers. These controllers often require complex yet efficient embedded applications to produce a desired function. Students are introduced to the mature 'C' programming language, in this course, as it is the standard for these applications in industry.

Prerequisite(s):

PROG 1101 (Introduction to Programming - Visual Basic) or PROG 1102 (Introduction to Programming - Python) or PROG 1700 (Logic and Programming I)

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. Compare and contrast the basic 'C' language constructs and operators with other programming languages.
2. Perform the steps needed to create, compile and link a 'C' console application.
3. Explain the concept of a memory pointer and memory management.
4. Design an application using dynamic memory allocation to create multiple objects.
5. Examine the standard C libraries and explore the usage through application.

Grading

The pass for this course is 60%.

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: http://nscc.ca/current_students

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

Workplan

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