

Course Outline

Course Title	Programming in C
Course Code	PROG 2007
Hours	60
Credits	4
Prerequisites	PROG 1101 or PROG 1102 or PROG 1700

Co-Requisites

Conditions

Course Description

This course introduces students 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.

Learning Outcomes

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

1. Demonstrate the operational use of the C programming language by constructing programs to operational specifications.
2. Perform the steps needed to create, compile, link and execute a 'C' console application.
3. Explain the concept and demonstrate the use of memory pointers and how data is stored in memory.
4. Design an application using dynamic memory allocation to create multiple objects.
5. Examine the standard C libraries and explore its usage through the development of applications.

Grading

The pass for this course is 60%

Required Supplies

Under Development

Other Learning Resources

See your Instructor for details.

Other Information

Not Applicable

Other Course Notes

It is the responsibility of the student to review and understand all Nova Scotia Community College policies, most specifically the Student Community Standards, 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: [Policies & procedures \(https://nscc.ca/policies/\)](https://nscc.ca/policies/)

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.