

Course Outline

Course Title Data Structures

Course Code PROG 2400

Hours 60

Credits 4

Prerequisites PROG 2100

Co-Requisites

Conditions

Course Description

This course presents fundamental data structures and algorithms with a pragmatic, application driven approach. Selected data structures are examined in detail together with implementation issues, and an in-depth discussion of their corresponding algorithms.

Rationale

Data Structures exposes the learner to advanced methods of organizing and accessing data and allows the learners to apply that knowledge in an object-oriented context.

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. Provide efficient implementations of selected data structures and related algorithms.
2. Compare and contrast various data structures with respect of their efficiency in different contexts.
3. Measure the time complexity of data structure algorithms through analysis of problems involving searching and sorting.

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.