CSC 170L: Computer Programming I Laboratory
Syllabus
Fall 2005

DESCRIPTION
Supplementary course to CSC 170: Introduction to Computer Programming I structured as a closed computer laboratory to complete specific programming tasks within a fixed time.

COURSE RATIONALE
This course is a required course for the Bachelor of Science Degree in Computer Science.

PREREQUISITE
MTH 105 or equivalent

COREQUISITE
CSC 170: Computer Programming I

GOALS and OBJECTIVES
To develop students’ abilities to use the C++ programming language syntax and semantics in transforming algorithms into code. The students will be able to

- Understand basic concepts of object-oriented design (OOD) and programming (OOP)
- Use one or more programming environments
- Understand and apply basic C++ programming data types, expressions, and control structures such as sequence, selection and iteration
- Understand and apply simple data structures such as arrays in software development
- Apply problem-solving and C++ language skills to develop working C++ programs
- Use pair programming and collaborative learning skills to develop working C++ programs

To enhance students’ skills in program design, program debugging, and promotion of good programming style. The students will be able to

- Develop solutions to solve relatively complex problems of various disciplines
- Identify and correct syntax and logic errors in a C++ program
- Use good programming habits to write code that is easy to maintain

CREDIT
1 semester hour

OUTLINE
- Introduction to Integrated Development Environment (IDE)
- Introduction to the C++ programming language
- Data types and Expressions
- Functions
- Introduction to program Input/Output (I/O) and text files
- Selection and Repetition Control Structures
- Arrays
- Searching and Sorting Arrays

TEXT


REFERENCES
- C++: An Introduction to Computing, 3rd Edition, by Joel Adams and Larry Nyhoff
- C++: A Dialog, Programming with the C++ Standard Library, by Steve Heller
- Problem Solving with C++, the Object of Programming, 4th Edition, by Walter Savitch

EVALUATION

Eleven (11) laboratory assignments 80%
Peer Evaluation 20%

TUTORING LABORATORY

Tutoring services are available, in the STARS Office, Room 318 NCH. Faculty or upperclassmen provide assistance to those students who may be experiencing difficulties in mathematics or computer science classes.

COMPREHENSIVE EXAMINATION

Some of the material in this course will be included in the comprehensive examination all computer science majors are required to take prior to graduation.

OFFICE LOCATION

The Department of Computer Science is located in suite C 215 Brown Hall. The individual faculty offices are located within the suite.

CLASS ATTENDANCE POLICY

The Computer Science Department adheres to the University Policy on class attendance.

WRITING COMPETENCY ASSESSMENT

All students who matriculate at Norfolk State University beginning Fall Semester 2001 and thereafter, will be required to take "entry" and "exit" examinations to assess their writing competency. Both examinations will be administered by the
English Department during enrollment in English 101 and 102 respectively. The entry examination is untimed, multiple-choice, and computerized. The exit examination is a two-hour, essay format, and the topic will be relevant to the student's discipline. Therefore, students enrolled in Computer Science courses will be required to complete writing assignments in addition to other requirements to assist them in their preparation for the exit examination. All students are required to take the exit examination prior to completing 90 semester hours.

STUDENTS WITH DISABILITIES
In accordance with Section 504 of the 1973 Rehabilitation Act and the American with Disabilities Act (ADA) of 1990, if you have a disability or think you have a disability please make contact with the Supporting Students through Disability Services (SSDS) office. Location: Lyman Beecher Brooks Library; Room 240 - Assistive Technology Lab. Contact: Marian E. Shepherd, Coordinator mshepherd@nsu.edu PHONE: 823-2014

INSITE PROJECT DESCRIPTION
The Computer Science (CS) departments at both Old Dominion University and Norfolk State University are currently participating in a collaborative project aimed at increasing undergraduate student retention in CS. As part of this project, you will be invited later this semester to complete a questionnaire over the internet to report your experience in this class. Your questionnaire responses will be used to enhance the undergraduate experience in CS at both universities. A website (www.cs.odu.edu/INSITE) containing additional information on the project will also be available by mid-semester.