CS 1415

Division: Natural Science and Mathematics
Department: Engineering and Computer Science
Course: CS 1415
Title: Object-Oriented Programming Lab
Catalog Description:

This laboratory provides continued experience to develop in depth correct programming practices. It provides the opportunity to apply object-oriented programming concepts and data structures.

General Education Requirements: N/A
Semesters Offered: Spring
Credit/Time Requirement: Credit: 1; Lecture: 0; Lab: 2
Clock/Hour Requirements: 0
Offered for Non-Credit: No
Prerequisites: CS 1400

Corequisites: CS 1410

Justification:

This course is the laboratory experience associated with the second course for students pursuing a computer science degree. It is part of the recommended curriculum for computer science and some engineering majors at Snow College.

Student Learning Outcomes:

Students will be able to:

- Apply appropriate software design methodologies for larger programs
- Use appropriate basic data structures
- Solve problems using an object-oriented programming language

Content:

The following topics will be covered in this course:

- Syntax of an object-oriented programming language
- Recursive and non-recursive algorithm implementation
- Exception handling
- Writing a simulation program using an appropriate data structure.

General Education Outcomes:

4) Retrieve, evaluate, interpret, and deliver information through a variety of traditional and electronic media.

Students will be required to utilize the text, application software help material, and online information to produce software solutions to assigned problems.

7) Apply scientific reasoning to a variety of contexts.

Students will be able to approach problems logically and develop solutions by applying the software development process. This will include understanding the problem statement, developing an algorithmic solution, and verifying the solution.

Key Performance Indicators:

Weekly programming projects: 100% of final grade

Representative Text and/or Supplies:

W. Savitch, *Absolute C++*, current edition, Addison Wesley

T. Gaddis, J. Walters, and G. Muganda, *Starting Out with C++*, current edition, Scott/Jones

Optimum Class Size: 12
Maximum Class Size: 15

Signatures:

I hereby submit this course syllabus:

_____

, ,

I hereby find this course consistent with the goals and resources of the Engineering and Computer Science Department:

_____

Garth O. Sorenson, MS, Associate Professor, Chair

I hereby find this course consistent with the goals and resources of the Natural Science and Mathematics Division:

_____

Dan Black, EdD, Associate Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

_____

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

_____

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)