A. Protocol

Course Name: Object-Oriented Programming
Course Number: CSC 265
Credits: 3
Prerequisites: CSC 124 Computer Programming I with C- or better

Maximum Class Size (face-to-face): 32
Maximum Class Size (online): N.A.

B. Objectives of the Course:
Upon completion of this course the student will be able to:

1) Explain the goals of Object-Oriented Programming as they contrast with Structured Problem Solving.
2) Identify the components of Object-Oriented Programming including Classes, Objects, Data Abstraction, Encapsulation, Inheritance and Polymorphism.
3) Discuss and compare the differences between procedural and Object-Oriented problems and solutions.
4) Discuss how elements of objects are accessed including composition of objects.
5) Design and implement solutions using a prominent object oriented programming language.
6) Effectively debug programs.

C. Catalog Description:
This course teaches object-oriented programming. Object-orientated programming offers a natural method for designing software systems that build on the concepts of data abstraction, information hiding and modularity. Students will design and implement solutions to problems using an object-oriented programming language. Prerequisites: CSC 124 Computer Programming I with C- or better. Three credits.

D. Outline of the Course:
1) Introduction to Object-Oriented Programming
   a. Structured versus object-oriented
   b. User-defined types
   c. Information Hiding
   d. Encapsulation

2) Object-Oriented Design

3) Object-Oriented Programming Basics
   a. Classes and Objects
   b. Methods
   c. Inter-object communication
   d. Public interface and private implementation
   e. Constructors and Destructors

4) Inheritance

5) Operator Overloading
6) Polymorphism

7) Templates

E. Teaching Methodology:

1) Traditional Classroom Methodology:
This course will be taught using the lecture/discussion method and cooperative group method during appropriate sections of the course. Students will be required to write and test computer programs.

2) Online Methodology:
This course will not be taught online.

F. Text
Kelley/Pohl. C by Dissection
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G. Assessment Activities:
1) Traditional Classroom Assessment
The final grade will be determined as a percentage from the following evaluation methods with varying weights at the discretion of the instructor:

   a. Examinations
   b. Quizzes
   c. Assignments
   d. Programs
   e. Attendance
   f. Performance

2) Online Assessment
No online assessments will be given.

H. Accommodations for Students with Disabilities:

*Accommodations for Students with Disabilities*

Students with disabilities:
- Reserve the right to decide when to self-identify and when to request accommodations.
- Will register with the Office for Students with Disabilities (OSD) *each semester* to receive accommodations.
- Might be required to communicate with faculty for accommodations, which specifically involve the faculty.
- Will present the OSD Accommodation Approval Notice to faculty when requesting accommodations that involve the faculty.

Requests for approval for reasonable accommodations should be directed to the Office for Students with Disabilities (OSD). Approved accommodations will be recorded on the OSD Accommodation Approval notice and provided to the student. Students are expected to adhere to OSD procedures for self-identifying, providing documentation and requesting accommodations in a timely manner.

Contact Information:
- Location: Azorsky Hall – Room 105
- Phone: (724) 938-5781
- Fax: (724) 938-4599
- Email: osdmail@calu.edu
- Web Site: [http://www.calu.edu/current-students/studentservices/disability/index.htm](http://www.calu.edu/current-students/studentservices/disability/index.htm)