UNIVERSITY OF CALIFORNIA
UCMERCED

Syllabus for CSE165-01: Intro to Object Orient Program

Spring 2016
Instructor: Chi Yan Daniel Leung

Designation:	INTRODUCTION TO OBJECT-ORIENTED PROGRAMMING
Catalog Description:	This course covers object-oriented programming concepts, such as classes, objects, methods, interfaces, inheritance, encapsulation, and polymorphism. While the goal of the course is to teach students how these concepts can be implemented in C++, significant emphasis is put on object-oriented modeling and design techniques.
Text Books and Other Required Materials:	Bruce Eckel -- Thinking in C++: Introduction to Standard C++, 2nd Edition, Volume 1, 2000, Prentice Hall, ISBN: 0-13-979809-9. Available online at: http://mindview.net/Books/TICPP/ThinkingInCPP2e.html.
Course Objectives/ Student Learning Outcomes:	Students in the class will learn to: -create programs in Linux using the gcc compiler and makefiles; -learn about cross-platform development; -apply standards and principles to write truly readable code; -write clean programs without memory leaks; -test and debug programs; -learn the fundamentals of input and output using C functions and the C++ templated classes; -develop the needed objects and data structures to solve a given computation problem; -understand and demonstrate the concepts of object-oriented design, polymorphism, interface, inheritance, and templates; and -apply object-oriented design in the development of implementation projects.
Program Learning Outcomes:	
Prerequisites by Topic:	CSE 020 -- Introduction to Computing I CSE 021 -- Introduction to Computing II
Course Policies:	Labs are designed to be started and worked on in the time frame you have in lab. Assignments must be completed individually, software assignments must not be shared.
Academic Dishonesty Statement:	a. Each student in this course is expected to abide by the University of California, Merced's Academic Honesty Policy. Any work submitted by a student in this course for academic credit will be the student's own work. b. You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e mail, an e mail attachment file, a diskette, or a hard copy. Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this

	Policy can also be extended to include failure of the course and University disciplinary action. c. During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action.
Disability Statement:	Accommodations for Students with Disabilities: The University of California Merced is committed to ensuring equal academic opportunities and inclusion for students with disabilities based on the principles of independent living, accessible universal design and diversity. I am available to discuss appropriate academic accommodations that may be required for student with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances. Students are encouraged to register with Disability Services Center to verify their eligibility for appropriate accommodations.
Topics:	Objects, C++ programming language, Data abstraction, Interfaces, Initialization and cleanup, Function overloading, Constants, Inline functions, References and Copy-Constructors, Operator overloading, Dynamic object creation, Inheritance and composition, Polymorphism and virtual methods, Templates.
Class/laboratory Schedule:	Lecture: T/R 9:00 - 10:15AM SSB 120. Lab: F 8:30 - 11:20AM, 1:30 - 4:20PM, 4:30 - 7:20PM SCIENG 138
Midterm/Final Exam Schedule:	This schedule is subject to change, but is tentatively set as follows: Midterm: Thursday, March 17(in class) Final: Thursday, May 5 (in class) Project presentation: Tuesday, May 10 3:00 - 6:00PM (SSB 120)
Course Calendar:	Week 1: Chapter 2 - introduction; first program Week 2: Chapter 3 - C language Week 3: Chapter 4 - objects basics; data abstraction Week 4: Chapter 5 - C++ access control; friend declarations Week 5: Chapter 6 - initialization and cleanup; constructors and destructors Week 6: Chapter 11 - references and the copy constructor Week 7: Chapter 13 - dynamic object creation; new and delete Week 8: Chapter 7 - function overloading and default arguments Week 9: Chapter 12 - operator overloading Spring Break Week 10: Chapter 14 - inheritance and composition Week 11: Chapter 15 - polymorphism and virtual functions Week 12: Chapter 16 - templates Week 13: Chapter 8 - constants and const, Chapter 9 - inline functions Week 14: Chapter 10 - static and name spaces Week 15: Final Topics
Professional Component:	
Assessment/Grading Policy:	Exams: Midterm 25%, Final 25% Labs: 30% Project: 15% Quizzes: 5%
Coordinator:	Chi Yan (Daniel) Leung
Contact Information:	Email: cleung3@ucmerced.edu I will try to answer your emails within 48 hours. However, I cannot answer email after 5:00 p.m. or on weekends. Please plan accordingly.

Office Hours: T/R 10:30AM - 12:30PM (AOA 126)
or by appointment