

California Lutheran University

Bachelor's Degree for Professionals

Computer Science Department

CSC 220

Advanced Computer Programming **Winter Term of 2016**

Instructor

Engr. Rabin M. Polito, Office: CS D14, Phone: (805) 754-4036
E-mail: rpolito@callutheran.edu

Location, Duration and Time

Computer Science Building @ D8, Thursdays 6:00 PM – 9:30 PM
November 23, 2015 to February 18, 2016

Drop Dates

December 7th: Last day to add/drop without financial penalty
January 19th: Last day to withdraw without academic penalty

Office hours

- D21 , Thursdays 2:30 – 6:00 PM, Mon-Wed-Fri 7:00 AM – 8:30 AM
- Instructor may be available to help specific problems using email system only. The operative word is 'may'.

Book (Required)

Introduction to Java Programming (7th edition to 10th Edition are fine) by Y, Daniel Liang
ISBN 13: 978-1118063330

Software

- Eclipse or Net Beans
- Other IDE's such as TextPad 4 or 5

Prerequisites

CSC 210 with a grade of C
Or with Permission of Instructor

Catalog Course Description

As second semester computer programming course, it takes a state-of-the art approach to software design and development with object-oriented methods and techniques. Topics include algorithm analyses, string processing, internal search and sort methods, complex data structures, design strategies, and most importantly, code reusability.

Course Objectives

Upon completion of this course, the student should have the knowledge of the following:

- A. Develop an algorithm and solve logic problems.
- B. String processing.
- C. Writing object-oriented programs, define class, use class.
- D. Complex data structures
- E. GUI Applications and Data structures
- F. Text and Binary Files
- G. Inheritance and Polymorphism and Reusability.
- H. Serialization, threading, timers and abstract classes
- I. Recursions, Exception handlings, interfaces
- J. Applets and Frames, lists, stacks, queues, trees and heaps
- K. Advance File Handling techniques and file search engines

Course Schedule

- Week I – Review from Chapters 1 to 8.
Project #1 and Project #2
- Week II – More on Classes and Objects.
More console and output formatting techniques using Objects
Extensive showInfo and Facilitator design
Project #3, Project #4.
- Week III – JFrame and JApplet Design with GUI methods
Project #5, Project #6.
- Week IV and V – Standard Data Format Files
Variable-Length and Fixed Delimited File access and browsing
The Data Input Form using Applets and Frames
Projects #7, Project #8.
Mid-term examination.
- Week VI and VII – Binary I/O and Recursions
Percolator Sort and Pendulum Sort (Numbers and Text and Files)
Lists, Stacks, Queues.
Project #9, Project # 10.
- Week VIII and IX – Multi-Threading, Layout Managers
Containers, Borders and Grids
Project # 11, Project # 12.

- Week X – Menus, Toolbars, Dialogs, Accelerators
Extensive Animation Techniques
Project #13, Project #14.
- Week XI – Book Review on selected Chapters
Final Project 15 and Final exam.

The schedule above is subject to change based on class developments. This means that the schedule may cover more topics, but never less.

Classes

- Classes will consist of lectures and hands-on lab programming.
- To successfully pass this course, it is very important to attend classes, listen to lectures and participate in in-class hands-on lab programming.
- Class participation will *always be graded*.

Assignments

- There will be weekly programming/project assignments.
- No late submission of assignments is allowed and *there will be no exceptions*.

Exams

- There will be one in-class midterm exam on **December 15, 2015**.
- Graded final exams will not be returned.
- The final exam will be at **Feb 02, 2016**.

Student Workload/Carnegie Hours:

The expectation is that a 4-credit course will meet for 50 hours of instructional time and will have 100 hours of out-of-class work (homework).

- As our 4-credit courses meet for about 36-37 hours in-person, the remaining 13-14 hours of instructional time need to be handled via online instructions (flipped classes, discussion boards, etc.).
- There should be approximately 9 hours of homework per week (of course this may vary depending on the week)

Carnegie Hours Chart

Activity	Instructor-Led Hours		Homework Hours		Remarks
	Weekly	Course	Weekly	Course	
Readings of required text			5	55	Over 11 weeks, uneven distribution
Weekly Classes	3 hr. 20 min.	36 hrs. 40 min.			Includes final exam
Article Assignment				10	Average, varies by student

Blog Post		2 hrs. 20 min.			Average, varies by student
Mid-term Prep				10	Average, varies by student
Discussion Board I		4			Average, varies by student
Flipped Class (recorded lecture)		4			
Case Study		3			Average, varies by student
Final Paper				15	Average, varies by student
Final Exam Prep				10	Average, varies by student
Total		50		100	

Grading (Teacher discretion)

Course Grade Distribution

- Class participation : 10%
- Projects/Homework/Tests : 45%
- Midterm exam : 15%
- Final exam : 30%

Grading

Upon application of weighted percentage, the following will be the criteria for your final grade:

- If your final percent is greater than or equal to 93% Grade = A
- Else, if your final percent is greater than or equal to 90% Grade = A-
- Else, if your final percent is greater than or equal to 87% Grade = B+
- Else, if your final percent is greater than or equal to 83% Grade = B
- Else, if your final percent is greater than or equal to 80% Grade = B-
- Else, if your final percent is greater than or equal to 77% Grade = C+
- Else, if your final percent is greater than or equal to 70% Grade = C
- Else, if your final percent is greater than or equal to 60% Grade = D
- Else, Grade = F

Course Evaluations Statement

All course evaluations are conducted online. Your feedback is important to us. You will receive an email message reminding you when the website is open for your feedback. The link is:

<http://courseeval.callutheran.edu>

Disability Statement

California Lutheran University is committed to providing reasonable accommodations in compliance with ADA of 1990 and Section 504 of the Rehabilitation Act of 1973 to students with documented disabilities. If you are a student requesting accommodations for this course, please contact your professor at the beginning of the semester and register with the Disability Support Services Coordinator, Wendy Jimenez, for the facilitation and verification of need. The Disability Support Services Coordinator is located in the Center for Student Success Office at 3259 Pioneer Street, and can be contacted by calling 805.493.3878 or emailing wjimene@callutheran.edu

Statement on Academic Honesty

The educational programs of California Lutheran University are designed and dedicated to achieve academic excellence, honesty and integrity at every level of student life. Part of CLU's dedication to academic excellence is our commitment to academic honesty. Students, faculty, staff and administration share the responsibility for maintaining high levels of scholarship on campus. Any behavior or act which might be defined as "deceitful" or "dishonest" will meet with appropriate disciplinary sanctions, including dismissal from the University, suspension, grade F in a course or various forms of academic probation. Policies and procedures regarding academic honesty are contained in the faculty and student handbooks.

Plagiarism, cheating, unethical computer use and facilitation of academic dishonest are examples of behavior which will result in disciplinary sanctions. Plagiarism includes, but is not limited to:

- word for word copying without using quotation marks or presenting the work as yours
- using the ideas or work of others without acknowledgement
- not citing quoted material. Students must cite sources for any information that is not either the result of original research or common knowledge.

Standards of Student Conduct Statements:

- [Student Life Handbook](#)
- [Academic Honesty Statement](#)

University Harassment Policy

Be civil to each other, both on- and offline. For information on the University's **student harassment policy and rights, please go to the following link:**

[Student Life Handbook](#)

Pearson Library

Pearson Library provides access to scholarly books, journals, ebooks, and databases of full text articles from scholarly journals. To begin using these materials, visit the library web page

<http://www.callutheran.edu/iss/research/>

- To contact a librarian:

- Chat on the Library's home page
- Email: CLULibrary@callutheran.edu
- Phone: (805) 493-3250.
- CLU's satellite locations, see <http://www.callutheran.edu/iss/research/satellite.php> for the full range of services provided.

CLU Writing Center

The Writing Center provides 1:1 writing consultations, in-person and online, with trained undergraduate and graduate writing consultants. We welcome all writing-related projects at any stage of the writing process across the diverse disciplines of study at CLU. The Writing Center also hosts writing workshops, provides in-class visits, facilitates writing groups, and offers a writer's studio option for longer, sustained projects. Services suit writers of all levels, including traditional undergraduates, graduate students from all fields, all English language learners, and accomplished scholars alike. All members of the CLU community with an @callutheran.edu email address are welcome to make use of our services. For more information, please visit at www.callutheran.edu/writing_center or call 805-493-3257. Please schedule appointments online through MyCLU Blackboard with the yellow "The Writing Center" icon in "Tools," or stop by The Writing Center itself, located in the Darling Collaboration Suite of Pearson Library.

Sexual Misconduct

California Lutheran University does not tolerate any degree of sexual misconduct on or off-campus. We encourage you to report if you know of, or have been the victim of, sexual harassment, misconduct, and/or assault. If you report this to a faculty member, she or he must notify Cal Lutheran's Title IX Coordinator about the basic facts of the incident. More information about your options for reporting can be found at: <http://www.callutheran.edu/title-ix/>

Veterans Resources

If you are a veteran, military member, or a family member of a veteran or military member, please refer to Cal Lutheran's Veterans Resources webpage for important information: <http://www.callutheran.edu/veterans/> Also, if you are a veteran receiving benefits and you are struggling in a class, you most likely qualify for free tutoring. Please contact the Veterans Coordinator, Jenn Zimmerman, veterans@callutheran.edu or 805.493.3648, for more information.

Help Desk

Students may contact the Help Desk about telephone, network, wireless network, software questions password problems, hardware problems, and general consultation (i.e. you cannot log into your MyCLU portal, or you are having problems with Blackboard). Please email specific details about your problems to helpdesk@callutheran.edu, click on the following link for more information http://www.callutheran.edu/iss/technology_services/helpdesk.php or call: 805.493.3698

Final Note

This syllabus is subject to change. Every effort will be made to alert students to changes that occur in a timely manner.