

California Lutheran University

Bachelor's Degree for Professionals

CS110 Concepts of Programming
Fall 2015

Vahé Karamian

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Spies-Bornemann Education Cntr, Room 139

Monday 6:00PM – 9:30PM

Drop Dates: Monday, September 14

Last day to add; last day to drop (without a “W”);
Last day to drop without financial penalty
(100% tuition charge for classes dropped after this
date)

Monday, October 12

Last day to withdraw without academic penalty;
Last day to remove incompletes from Summer term

Course Description

The course is for students who want to learn a basic concept of programming in a gentle way. Emphasis is on problem solving, design, and programming as the core skills of computer science. A simple, but yet powerful object-oriented programming language Python is used to illustrate these ideas. Python is very flexible and has an easy set up to start programming. Topics covered in class are variables, data types, assignment, functions, decision structures, loop structures and objects.

Textbooks/Required Readings

Franklin, Beedle & Associates. *PYTHON PROGRAMMING: Introduction to Computer Science*, 22462 Washington Street, Sherwood, OR 97140, Copyright 2004, ISBN: 1-887902-99-6. (Or any edition of the same book and author).

Course Outcomes

Python is used to illustrate fundamental principles of design and programming that apply in any programming languages. Python is an interpreted, interactive, object-oriented programming language. It combines remarkable power with very clear syntax. Yet, Python is used in a wide variety of real world applications, from small-scale projects to more difficult endeavors like game programming.

Upon completion of this course successfully, you should be able to accomplish followings in a beginner level:

- Develop an algorithm and solve problems
- Write programs using traditional programming elements such as IF/THEN, FOR, WHILE, FUNCTIONS.
- Writing object oriented programs: define class, use class.
- Test and debug programs.

Class Format

Lecture and group discussion/work will be used to illustrate important points in the text and subjects. CLU Blackboard will serve as the primary media.

California Lutheran University is committed to providing reasonable accommodations to students with various documented disabilities (physical, learning, or psychological). If you are a student requesting accommodations for this course, please contact your professor at the beginning of the semester and register with the Coordinator for Students with Disabilities (Pearson Library, Center for Academic Resources, Ext. 3260) for the facilitation and verification of need. Faculty will work closely together with you and your coordinator to provide necessary accommodations.

Course Assignments/Requirements/Course Schedule

<i>Week I & II</i>	<i>Introduction to Python using IDLE and command line window. Your first program and simple arithmetic operations.</i> More on computing with numbers with simple loops, hierarchy. Use of string and manipulation of strings.	
Week III & IV	Objects and graphics and definition of functions. Decision structures. More of decision structures, nested loops, interactive loops, Sentinel loops, Boolean operators and simple Boolean algebra.	Mid-term exam Chapter 1 through 6
Week V & VI	Definition of classes, encapsulation. Start of Arrays and Lists. Array manipulation versus List Operations.	
Week VII and VIII	More on data collections Simple design of lists and classes. Simple arithmetic applications, using classes. Discussion and design implementation encapsulation and polymorphism and inheritance.	
Week IX & X	Review for final	

Student Workload/Carnegie Hours:

The expectation is that a 4-credit course will meet for 50 hours of instructional time and will have about 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	

** In this chart the Carnegie Instructional Hours have already been converted to traditional clock hours; these are based on a 60-minute clock hour.

Grading

Criterion	Portion	Grading Scale
Final Exam	20%	A 95-100
Mid Term Exam	30%	A- 90-94.9
Projects	30%	B+ 86-89.9

Homework	20%	B 83-85.9 B- 80-82.9 C+ 76-79.9 C 73-75.9 C- 70-72.9 D+ 67-69.9 D 55-66.9 F 0-54.9
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Attendance Policy

You are expected to attend every single class and participate in the discussion and projects that have been assigned.

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://courseval.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 Cal Lutheran'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 dishonesty 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/library>

There are many ways to contact Pearson Library for research assistance, no matter where you are!

- Email Madelynn Dickerson (Professionals liaison) at dickerso@callutheran.edu
- General Library email: CLUlibrary@callutheran.edu
- Library main phone: 805.493.3250
- Text us your question: 805.493.3867
- Get more help at: <http://www.callutheran.edu/library/help/>

Cal Lutheran 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 Cal Lutheran. 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 Cal Lutheran 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.