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Course Syllabus

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Description

Course Syllabus

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Course Information

Course: CS 162P (CRN 11361)

Course Description:

This course builds upon the introduction to Python provided in CS 161P. It provides an in-depth introduction to the semantics of object oriented programming. You will learn the concepts, skills, and tools necessary to analyze problems from an object oriented perspective and develop object oriented solutions. Some of the programming assignments for the class involve simple games.

Course Format:

This term, the course is being offered on-line only. There will be practices exercises each week for you to complete to test your understanding of the material. Solutions will be posted to these exercises, so that you can get help if you need it.

There will also be Zoom sessions that will be a combination of office hours and classroom sessions where you can get answers to problems and I can explain concepts in more detail.

Dates and Times: On-line. Zoom sessions during regular scheduled time MW 10-12.

Instructor: Jim Bailey

Instructor's Email: baileyj@lanecc.edu

Office Hours: Mon-Thurs 9-10 on Zoom.

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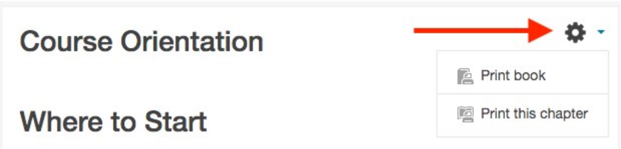

Instructor Biography

I started programming in high school in 1967 on an IBM 1130.

I received my BS from OSU in Math (which then included CS) in 1972. Then I spent a decade on Wall Street working at a small municipal bond firm as a trader.

In 1982, I received my MS in CS in networking and operating systems. I spent a year consulting on Unix, then went to work for Tektronix in their research department. This was followed by 15 years working in the color printer group where I went from engineer to project manager and finally director (with multiple teams working for me). Some of my team's accomplishments were first Color Postscript Printer, first Kanji Postscript Printer, and first successful office Color Laser Printer. My team also pioneered network connectivity for office printers.

While working at Tektronix, I completed my PhD in CS in neural networks and computer architecture. As part of this, I collaborated on two patents and had numerous publications and conference presentations.

In 1996, I left Tektronix and started a consulting company. In 1998, i gave the company to my partner and went to the Bay Area to participate in the dot-com era. While there, I was VP of engineering for two different start-ups. I left in 2001 and took two years off to raise fiber animals with my then wife. I started teaching part-time at UO during this period.

In 2003, we split and I moved to Eugene where I started teaching full-time at LCC. My accomplishments at LCC have included Principal Investigator on an NSF grant (using virtual worlds to teach programming), creating the Game Dev degree (and courses), and developing the C++ and 161/162 Python programming classes.

I currently live in Albany with my wife, four goats, a dozen chickens, two dogs. I am also co-owner of a herd of Scottish Highland cows that reside near Oakland OR.

For fun we do hiking, biking, kayaking, camping, and traveling.

Kayaking with South Sister in background Sunset on lake

Learning Outcomes

By the end of this course you will be able to design and code object oriented Python programs using proper syntax and semantics, compile those programs, debug them as necessary, and run them.

Technologies

Python
Integrated Development Environments

Themes

Software Engineering
Algorithm development
Python Syntax
Python Semantics
Top down development
Object Oriented design

Concepts

Functions
Recursion
Arrays and Lists
Procedural vs OOP
Classes and Objects
Information Hiding
Polymorphism
Operator Overloading
Exception Handling
Linked Lists
File I/O

Skills

Use an IDE to enter, compile, and run Python Programs
Effectively use: arrays, strings, lists, sets, modules, classes and objects, file I/O, exception handling
Design, implement, test and debug a variety of object oriented programs in Python.
Describe concepts and themes orally and in writing

Course Format and Schedule

This course will be eleven weeks long. Weekly schedules start on Sunday and end on the following Saturday.

Week	Topics	Activities
Week 1 Functions	Parameters Local Variables Return Values	Quiz 1 Friday Lab 1 Sunday
Week 2 Recursion	Recursive Functions	Peer Review Lab 1 Thursday Quiz 2 Friday Lab 2 Sunday
Week 3 Linked Lists	Adding to Head Removing from Head Searching	Peer Review Lab 2 Thursday Quiz 3 Friday Lab 3 Sunday ---------------- Function Review Test
Week 4 Lists		Peer Review Lab 3 Thursday Quiz 4 Friday Lab 4 Sunday
Week 5		Peer Review Lab 4 Thursday Quiz 5 Friday Lab 5 Sunday --------------- Linked Lists and Lists Review
Week 6		Peer Review Lab 5 Thursday Quiz 6 Friday Lab 6 Sunday
Week 7		Peer Review Lab 6 Thursday Quiz 7 Friday Lab 7 Sunday
Week 8		Peer Review Lab 7 Thursday Quiz 8 Friday Lab 8 Sunday

Week 9		**Peer Review Lab 8 Thursday** **Quiz 9 Friday** **Lab 9 Sunday** **-----------------** **Classes and Objects Review Test**
Week 10		**Peer Review Lab 9 Thursday** **Quiz 10 Friday** **Lab 10 Sunday**
Comprehensive Final	**All topics from term**	**Take Final as shown in Moodle**

Grading

Grading Scale

	+		-
A	98-100	92-97	90-91
B	88-89	82-87	80-81
C	78-79	72-77	70-71
D	68-69	62-67	60-61
F		Below 60	

Overall Grade Breakdown

In figuring grades for the course, 40% will be the labs or exercises (including peer evaluations), 5% will be the reading quizzes, 35% the topic reviews, and 20% the final.

When grading lab exercises, your grade is based on the quality of your assignment (does it compile and run properly, solve the described problem, and demonstrate appropriate coding styles).

A score of at least 60% is required on the final in order to pass the course

Late Work

Late labs will be docked 25%. No labs will be accepted more than a week past the original due date.

The lowest quiz grade will be deleted, so you may miss one quiz without penalty.

You must arrange ahead of time to reschedule any quizzes or tests.

Grading and Feedback

The instructor will provide a grade and feedback for all graded activities within one week from the final due date for that activity. Late work does not fall under this policy and will be returned at the instructor's discretion.

Final course grades will be provided via Moodle and MyLane within 7 days of the end of the course.

Incomplete Grades

In some circumstances it is possible to get an incomplete grade for the course. The student must be passing the course and have successfully completed at least 75% of the material. An incomplete is only given under exceptional circumstances and is not intended as an escape for not completing work on time.

Required Texts

This course is developed under the Open Educational Resource program, so the textbook is provided online via a link in Moodle.

Other course materials are also provided via Moodle.

Required Software

You will need an IDE that supports Python 3.x development. I recommend PyCharm and will be using it in my online examples.

Student and Instructor Expectations

Prerequisites

You should have completed Math 95 and CS 161P prior to taking the course.

You are expected to be familiar with how to use a computer, access the internet via a browser, install necessary software, zip up and upload files, and use a word processing or text editing program.

Performance and Participation

Regular and active participation is required. You should notify the instructor immediately if you are experiencing any obstacles in maintaining optimal performance. Performance will be monitored and swift action taken to help remedy any problems. Your behavior in the course is to be respectful at all times to instructor and peers. You are expected to actively participate in the course throughout the week. Each week of the course is designed to be completed over 7 days, not just in one sitting. Active participation includes posting to and responding to discussion forums, completing assigned activities, and other actions as requested by your instructor.

Instructor Response Time

The instructor will respond to all questions sent via email, phone, or the Course Q & A Forum within 24 hours, except on weekends and holidays. Any questions asked over a weekend or holiday will be addressed on the next working day.

Grading and Feedback

The instructor will provide a grade and feedback for all graded activities within one week from the due date. Revised and late homework will be graded at the instructors convenience, but within two weeks of submission.

Final course grades will be provided via Moodle and MyLane within 7 days of the end of the course.

Support

The following student support services are here to help you through your educational experience.

- SHeD (Student Help Desk)
- help.lanecc.edu (Student knowledgebase)
- Moodle Basics for Students (self-enroll)
- LCC Computer Labs
- Tutoring Services
- Library
- Resources to Help you Succeed

For issues with your course, please contact your instructor via the Course Q & A Forum**.**

For help with programming problems, contact the instructor directly, use online office hours office hours, or get help from the CIT online tutors.

Student Rights and Responsibilities

Lane Community College maintains a written statement of Student Rights and Responsibilities. This document outlines the essential provisions for academic freedom and guides students in becoming responsible participants in the college community. This document is updated by Student Life and Leadership Development and is approved by the Executive Dean of Student Affairs.

Student Code of Conduct

Lane also maintains a written Student Code of Conduct. This document describes conduct interfering with the responsibilities and obligations of the college. It also outlines the penalties imposed for prohibited conduct and explains the procedural due process for alleged student violations and the protection of student rights. The Student Code of Conduct is updated by Student Life and Leadership Development and is approved by the Executive Dean of Student Affairs.

Accessibility and Accommodations

Syllabus Accessibility Statement

To request assistance or accommodations, contact the Center for Accessible Resources at (541) 463-5150 or accessibleresources@lanecc.edu. Please be aware that any accessible tables and chairs in any room should remain available for authorized students who find that standard classroom seating is not usable.

Center for Accessible Resources

Location
Main Campus, Building 19, Room 265

Hours
Monday-Friday 8 a.m.-5 p.m.
Closed Wednesdays 12:00 - 1:00 for staff meeting.

Accessibility at Lane

Lane Community College is committed to meeting ADA requirements and making our website as well as our campus accessible to all visitors. For more information on the website and alternate formats, organizations and services, campus accessibility and contact information go to: https://www.lanecc.edu/accessibility.

Academic Honesty

Students are expected to conduct their academic affairs in a forthright and honest manner. In the event that students are suspected of classroom cheating, plagiarism or otherwise misrepresenting their work, they will be subject to due process as outlined in the Student Code of Conduct. Plagiarizing on an assignment or test with result in a grade of zero for that assignment/test. Note that cheating on a single question of an exam will result in a grade of zero for the entire exam!