Intermediate Python Programming
CS21B – Spring 2019

Instructor

Geri Lamble
E-mail: lamblegeri@fhda.edu
Office Hours: Mon/Tue 4:00 – 4:50 PM Online

Course Description

Catalog Description

This course builds on the student's prior knowledge of the Python programming language by offering a more in-depth and advanced approach to building effective Python applications. Specific topics include user interfaces, networked applications, databases, multithreading and regular expressions. The course reinforces object oriented design, thorough documentation, testing and conventional programming style.

Course Details

Term: Spring 2019
Course name: Intermediate Python Programming
Course number: CS21B
CRN: 42031
Section number: 01W
Lectures: Online
Labs: Online
Prerequisite: Advisory CS 3A or CS 21A or relevant experience

Course Objectives

Understand Python's memory model and issues with mutability.
Recognize various aspects of Python code that exhibit better performance.
Discuss implementation differences between the standard data types.
Distinguish between Python 2 and 3, use migrations tactics, discuss porting issues, and write code compatible with both versions.
Write code that executes other (Python and non-Python) programs.

Use the standard Python developer and testing tools.
Write Python code with fewer bugs and other issues.

Student Learning Outcomes

A successful student will be able to develop a Python program that runs other programs, accesses a database, and transfers files over a network.

A successful student will be able to develop an event driven Python program that interacts with the user through a graphic user interface that employs windows, dialog boxes, buttons, menus and text fields.

Textbook

The Quick Python Book, Third Edition, by Naomi Cedar ISBN: 9781617294037

The text for the course is *recommended* in that forum discussion questions can be directed to a section in the book for further explanation. It is expected that students will have access to this reference.

Software Requirement

Python 3 interpreter and a text editor of your choice.

Go to the www.python.org. The downloads page link is listed below. Be careful to choose the version for your operating system and hardware. The python.org website also provides user documentation and tutorials.

- Python 3 Downloads
- Python documentation
- Python Tutorial

Grading Policy

Grades

Your grade is determined by:

- Assignments 75%
- Exams 25%

Tests

There will be a midterm exam and a comprehensive final exam. Exams will be administered online.

Lab Assignments

There will be eight required lab assignments. There is an optional ninth lab assignment that can be used to replace a low lab score. Labs will be turned in online.

Grading Scale

Letter Grade	Lower %	Upper %
A	93%	100%
A-	90%	92%
B+	87%	89%
B	83%	86%
B-	80%	82%
C+	77%	79%
C	73%	76%
C-	70%	72%
D+	67%	69%
D	63%	66%
D-	60%	62%
F	0%	59%

Course Expectations

Attendance Policy

Regular attendance is required. Students will be dropped for non-participation for the following:

- Not posting a first week Introduction
- Not submitting the first assignment
- Missing two consecutive lab submissions
- Missing the midterm exam
- Missing three total lab submissions

Course Logistics

Course material will be provided in Canvas including announcements, discussions, lecture notes, video links, lab assignments, and exams. There are no required on campus meetings. Starting the 2nd week, assessments (lab or exam) are due weekly.

Course Communication

Active online forum topic and lab discussions are available weekly. I am available daily weekdays via the Canvas discussion forums and Canvas Conversation Private message.

Private Messages

Please use *public* Discussions for any question or comment that relates to the class – this helps everyone to learn. If you have a confidential question (grades or registration) use the Canvas Conversation Private Message Tool (PMT).

Checking my Messages

The best way to get a hold of me is through sending a “private message” via the Canvas Conversation tool.

Help Resources

Computer Science Support

STEM Success Center: The “STEM Center”, located in the 4200 building, room 4213, will have qualified CS tutors at various times each day.

There is also a dedicated Computer Science lab located in the 4200 building, room 4204.

Online Tutoring support is available.

Online Learning Support

New to Canvas?

- Attend one of the on-campus Canvas Orientation sessions held during the first week.
- Run through the Canvas Online Orientation.

Need Help with Canvas?

Contact Foothill Online Learning.

Disability

To obtain disability-related accommodations, students must contact the Disability Resource Center (DRC) at the start of the quarter.

Opportunities for CS Students

Opportunities for CS students is a blog that contains announcements of internships, scholarships, software offers, pertinent public lectures and other useful CS updates. Announcements will be posted during the quarter. Students are encouraged to take advantage of CS opportunities available here.

Course Outline

Week	Topic	To Do
1	Introduction. Python Review. Basic Data Types. Control Flow. Tuples. Lists.	Post Introduction
2	More advanced data types (dictionary, string), file I/O, exceptions, functions.	Lab1
3	Modules and Packages, Object oriented programming, advanced function: map, filter	Lab 2

	and reduce.	
4	Regular Expressions	Lab 3
5	Databases	Lab 4
6	The Web and Search	Midterm Exam
7	GUI Programming	Lab 5
8	Network Programming	Lab 6
9	Internet Client Programming	Lab 7
10	Multithreaded Programming	Lab 8
11	Web Programming: CSI and WSGI	Optional Lab 9
12		Final Exam

Official Due Dates for the Course

Date	Day	Read Module	Lab Assignment Due 11:59 PM	Test Due11:59 PM
Apr 8	Monday	Syllabus & Resources & Module 1		
Apr 15	Monday	Module 2		
Apr 16	Tuesday		Assignment 1	
Apr 22	Monday	Module 3		
Apr 23	Tuesday		Assignment 2	
Apr 29	Monday	Module 4		
Apr 30	Tuesday		Assignment 3	
May 6	Monday	Module 5		
May 7	Tuesday		Assignment 4	
May 13	Monday	Module 6		
May 14	Tuesday			**Midterm**
May 20	Monday	Module 7		
May 21	Tuesday		Assignment 5	
May 27	Monday	Module 8		
May 28	Tuesday		Assignment 6	
June 3	Monday	Module 9		
June 4	Tuesday		Assignment 7	
June 10	Monday	Module 10		
June 11	Tuesday		Assignment 8	
June 17	Monday	Module 11		
June 18	Tuesday		Assignment 9 (Optional)	

June 25 Tuesday **Final Exam**

College Policies

Academic Honesty

Your lab and exam submissions must be your own work.

The following guidelines apply:

You are encouraged to discuss in the forum about course questions but you may not examine nor reuse any other student's code. You are not allowed to copy code from **any** source — other students, the Web, etc.

Academic Integrity Statement

It is every student's responsibility to know what constitutes academic dishonesty.

If you have any questions, feel free to ask me, our division dean or the Dean of Student Affairs & Activities.

- Academic Integrity Statement
- z-card

Changes

This syllabus is subject to changes, additions, deletions, and/or corrections.

Last Updated: 04/04/2019 3 8:38 AM