Course Syllabus

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Overview

CS3A is the first in a 3-part introductory series offered by the CS Department. It's an introduction to the a number of fundamental concepts in computer science using the Python programming language.

Student Learning Outcomes

According to the **course outlines** (https://www.foothill.edu/schedule/outresults.html?rec_id=13962), upon completion of this course:

- A successful student will be able to write and debug Python programs which make use of the fundamental control structures and function-building techniques common to all programming languages. Specifically, the student will use data types, input, output, iterative, conditional, and functional components of the language in his or her programs.
- A successful student will be able to use object-oriented programming techniques to design and implement a clear, well-structured Python program. Specifically, the student will use and design classes and objects in his or her programs.

Logistics

Instructor

My name is **Zibin Yang**. I can be contacted using the message system on Canvas. My email is **yangzibin@fhda.edu** (mailto:yangzibin@fhda.edu) (but see contact policy below).

I am on campus in CS Lab (room 4204) in the **STEM Center** (https://foothill.edu/stemcenter/) Monday and Thursday 9am-2pm. Note during those hours I help students in the order they sign up. I will also hold online office hours Tuesday 11am-12pm; to join, go to Conferences on the left sidebar on Canvas and join the "Online office hour" conference.

Textbook and references

The **required** readings for the course are available as **Modules**. They were authored by Michael Loceff, a long-time CS professor at Foothill. If any updates/modifications are necessary, I'll post errata before the week's readings.

Otherwise, for more in-depth and perhaps a different perspective on the materials, you may **optionally** pick any relevant Python textbook that fit your style and budget. Loceff recommends ***Python for Everyone, any Edition***, by Horstmann et. al.

There are also plenty of excellent and free online resources, the best of which is probably the official Python documentation repository, **https://docs.python.org/** (https://docs.python.org/). It's not a textbook, but it's

probably the most authoritative and complete reference for Python.

Finally, a colleague of mine recommended How to **Think Like a Computer Scientist: Interactive Edition** (https://runestone.academy/runestone/static/thinkcspy/index.html) . I like the interactive exercises in the book, and may make recommendation to specific parts of it as we progress along.

Development Environment

We'll use Python version 3 in this class. Again, make sure whatever Python interpreter you use is version 3. Preferably, you should have Python 3.6 (which came out in December 2016) or above. While you may use whatever code editor and runtime environment you know and are comfortable with, I highly recommend that you use **PyCharm** (https://www.jetbrains.com/pycharm/) . The Community Edition is free and sufficient for this class.

Grade

Your grade is determined by points you earned in **Assignments**, **Quizzes**, and a **Final exam**. The breakdown is:

Assignments	70%
Quizzes	14%
Final	16%

Assignments are programming projects, and are expected to take 2-10 hours each week. There are 8 of them, 1 each week starting on week 2. Of the 8, 7 are mandatory, each is worth 10% of your grade; 1 is extra credit that's worth 5% of your grade. Late assignments are accepted, at 10% penalty each day it's late for up to 5 days. Note that even if the assignment is submitted a minute past the deadline, it's considered late by one whole day. Each student gets 7 free late days with no late penalty for the quarter.

Quizzes are short (4-5 questions) and conducted online, and are expected to take less than 30 minutes each. There are 8 of them, 1 per week starting on week 2. 1 quiz with lowest points will be dropped. Each quiz is worth 2% of your grade.

There will be 1 online final that makes up 16% of your grade.

There will be other opportunities to get extra credits. Details will become available as the quarter progresses.

Your letter grade will be determined as follows.

Grade	**Range**
A+	97% 100%
A	91.0% < 97.0%
A-	88.0% < 91.0%
B+	86.0% < 88.0%
B	80.0% < 86.0%
B-	78.0% < 80.0%
C+	75.0% < 78.0%

Grade	Range
C	67.0% < 75.0%
D	60.0% < 67.0%
F	0.0% < 60.0%

Academic Integrity

All of your graded works must be **100% your own**. Do not copy or use anyone else's (your classmate's, friend's, any free or paid website's) code and pass that as your own work. You may discuss assignments in concepts with each other in-person or using the public **Discussions** forums, but you must work on your own solutions.

Drops and Withdrawals

Please refer to **Foothill Spring 2019 Dates and Deadlines** **(https://foothill.edu/calendar/spring2019.html)** for important dates.

To avoid being dropped by the end of the first two weeks, a student must:

- Post a brief introduction in **First Week Introductions**
- Take **Quiz #1**
- Submit solution to **Assignment 1 - Arithmetic**. If more time is needed for the assignment, please contact the instructor.

Beyond the first two weeks, a student can be dropped if s/he stops participating in the class, which includes missing 2 or more assignments or missing 2 or more quizzes without prior discussion with the instructor.

Where to get help

I want you to learn and be successful. While whether that happens or not largely depends on your own effort, there are plenty of resources to help you achieve that goal.

Private message to the instructor

For private matters that are not suitable in the public forum, such as grades, contact me using the Canvas messaging system, which is preferred. Use my email only if there are problems with Canvas.

Public discussion

The **Discussions** area is a place to ask questions and post comments relevant to the modules, assignments, etc. You should also try to to answer your fellow students' questions. You are all part of the community and should engage each other.

Anything you post should be respectful, clear, and specific. Use common sense, and do not post things like direct answer to the assignments, or a whole piece of code and ask "why doesn't it work".

If you paste code, make sure they are properly formatted. See **Week 3R - Posting Code to Discussions** **(https://www.fgamedia.org/faculty/loceff/cs_courses/common/compilers/cs_all_posting_code_CANVAS.html)** for

guidelines.

STEM Center

The **STEM Center** (https://foothill.edu/stemcenter/) in room 4213 has qualified tutors for various STEM subjects. There's a **CS Lab** (https://foothill.edu/stemcenter/tutoring-schedules/schedule-cs.html) in room 4204 dedicated to CS courses. It even provides **online CS tutoring** (https://foothill.edu/stemcenter/tutoring-schedules/schedule-cs-online.html). It's free and a great resource if you need one-on-one help.

NetTutor

Foothill contracted with an outside company to provide online tutoring at no cost to the students. You can access that by clicking NetTutor on the menu on the left.

Disability-Related Accommodations

If necessary, please contact the **Disability Resource Center (DRC)** (https://foothill.edu/drc/) as early as possible, by

- visiting the DRC in room 5400
- emailing the DRC at **adaptivelearningdrc@foothill.edu** (mailto:adaptivelearningdrc@foothill.edu,)
- (mailto:adaptivelearningdrc@foothill.edu,) calling DRC at 650-949-7017 to make an appointment.

Course Summary:

Date	Details	
Wed Apr 24, 2019	**LAB Assignment 1 - Hello World!** (https://foothillcollege.instructure.com/courses/9641/assignments/242199)	due by 2pm
Wed May 1, 2019	**Assignment 1 - Arithmetic** (https://foothillcollege.instructure.com/courses/9641/assignments/242200)	due by 11:59pm
Wed May 8, 2019	**LAB Assignment 4 - Free Frozen Yogurt** (https://foothillcollege.instructure.com/courses/9641/assignments/242202)	due by 2pm
	Assignment 2 - Recipe-to-Nutrition Converter (https://foothillcollege.instructure.com/courses/9641/assignments/242201)	due by 11:59pm
Wed May 15, 2019	**LAB Assignment 5 - Text Processing** (https://foothillcollege.instructure.com/courses/9641/assignments/242203)	due by 2pm
Fri May 17, 2019	**CS 1A Midterm Exam** (https://foothillcollege.instructure.com/courses/9641/assignments/242195)	due by 11:59pm

Date	Details	
Wed May 22, 2019	**LAB Assignment 6 - A Triple String Class** (https://foothillcollege.instructure.com/courses/9641/assignments/242204)	due by 2pm
Wed May 29, 2019	**LAB Assignment 7 - Casino with Methods and a Class** (https://foothillcollege.instructure.com/courses/9641/assignments/242205)	due by 2pm
Wed Jun 5, 2019	**LAB Assignment 8 - Computer Dating** (https://foothillcollege.instructure.com/courses/9641/assignments/242206)	due by 2pm
Wed Jun 12, 2019	**LAB Assignment 9 - Changing Sort Keys** (https://foothillcollege.instructure.com/courses/9641/assignments/242207)	due by 2pm
Wed Jun 19, 2019	**LAB Assignment 10 - A StudentArrayUtilities Class with an Internal Array** (https://foothillcollege.instructure.com/courses/9641/assignments/242197)	due by 2pm
	LAB Assignment 10 - Mortgage Calculator GUI (https://foothillcollege.instructure.com/courses/9641/assignments/242198)	due by 2pm
Tue Jun 25, 2019	**CS 1A Final Exam** (https://foothillcollege.instructure.com/courses/9641/assignments/242194)	due by 11:59pm
	1% extra credit for showing up at the instructor's in-person or online office hour (https://foothillcollege.instructure.com/courses/9641/assignments/242196)	