# CS 21A - PYTHON FOR PROGRAMMERS

#### **WINTER 2019**

Instructor: Rula Khayrallah

## **Course Description:**

This course introduces students to the Python language and environment. It is intended for CS majors as well as non-majors and professionals seeking Python programming experience. Topics include data structures, object-oriented programming, modules, recursion, data abstraction, code style, documentation and testing.

Prerequisite: CS 1A, CS 1AH, CS 2A, CS 2AH, CS 3A or equivalent course or programming experience.

### **Student Learning Outcomes:**

- A successful student will be able to write and debug Python programs which make use of the fundamental control structures and method-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.

#### The official course outline of record

# **Course Logistics**

This is an online course and you don't have to be on campus for any meetings or exams.

The midterm and final exams will be available online on Canvas. They will be scheduled over a 24-hour window so you will be able to take them at a time that is convenient for you. Once you start an exam, you'll have to complete it within a set time limit. **There will be no make-up exams**.

Programming assignments will be due every week. Lecture modules are also followed by **review quizzes** that you can take multiple times. These quizzes are there to help you check your understanding of the lecture materials. I recommend that you take them right after you finish reading the corresponding module.

**Getting Help:** You are not alone! If you find yourself stuck on something, please ask for help. The discussion forums are there for your support; please use them. I want the programming

assignments to be rewarding and fun, not frustrating. But, I don't know when or how to help unless you ask.

**Office Hours** will be held online on Monday from 9:00-10AM. During that time, I will be available by phone, Zoom, or Skype. Just send me a Canvas private message to setup a meeting.

I will also be available daily via Canvas discussion forums and messages. Please ask your questions on the forums so that fellow students can benefit. However, I ask that you do not post assignment code on the forums before the due date. If you have a question specific to your program and you need to include the code, please ask via private Canvas message.

I will respond to your daytime questions (8AM-5PM) within 6 hours of posting, Monday through Friday.

After hours and on weekends, I will respond to your questions within 14 hours of posting.

#### Canvas

If you have not taken any courses on Canvas, I strongly urge you to do at least one of the following:

- Attend the on-campus Canvas Orientation session. Visit <u>Foothill Online Learning</u> for the dates and location.
- Step through the online Canvas Orientation
- Complete the Self-Assessment Questionnaire and visit the Online Learning Tour.

#### **Textbooks**

There is no required textbook for this course. The required reading material is posted under <u>Modules</u>.

The following free book is available online:

• <u>Learning with Python 3 by Peter Wentworth, Jeffrey Elkner, Allen B. Downey, and Chris Meyers</u>

# **Academic Integrity**

The purpose of this course is to help you learn. My goal is to help you succeed. If you're stuck, please ask for help.

It is OK: to ask questions, discuss assignments and different approaches with your classmates. I encourage you to use the discussion forums to do so.

It is NOT OK to share code, or copy code from fellow students or from the web or to copy answers on homework or tests.

It is not OK to post your assignment code on the forums.

It is NOT OK to post any course material, assignments, exams or solutions on the web or to share them in any way with others during or after the course.

If someone else copies from your work, with or without your permission, you will be held responsible.

Infractions will be detected and will lead to an automatic 0 on the given assignment or test. I will follow Foothill College procedures in case of infraction. That means that in addition to the 0 you'll get on the particular assignment or test there will be administrative consequences that include probation, suspension or expulsion.

Please review Foothill College Academic Integrity Policy and download the Academic Integrity z-card. To get access to the course material, you need to read and submit the Foothill College Academic Integrity Pledge available through Modules.

## **Participation**

Regular weekly participation is an integral part of the learning process.

Students who are enrolled in the class but who do not submit the first assignment will be dropped for non-attendance.

After the first week, students will be dropped if they miss or receive a 0 on two consecutive assignments.

# **Disability Statement**

To obtain disability-related accommodations, students must contact <u>Disability Resource Center</u> (DRC) as early as possible in the quarter. To contact DRC, you may:

- Visit DRC in Room 5400
- Email DRC.
- Call DRC at 650-949-7017 to make an appointment

If you already have an accommodation notification from DRC, please contact me to discuss your needs.

# **Grading**

Final - 20% - 200 points

Midterm - 10% - 100 points

Weekly assignments - 70% total - 700 points total

Extra credit: completing each of the practice quizzes **by the due date** will earn you up to one extra credit point (in addition to the 1000 total points for the course) on your cumulative grade. You can take each quiz several times - until you get it right.

### No separate extra credit assignments will be given.

All assignments and exams will be graded within 72 hours of the due date.

## **Grading Scale**

Numeric Grade	Letter Grade
99.0-100	A+
93.0-98.9	A
90.0-92.9	A-
87.0-89.9	B+
83.0-86.9	В
80.0-82.9	B-
77.0-79.9	C+
70.0-76.9	С
60.0-69.9	D
below 60	F

A+ grades will be given but will not count towards your Foothill College GPA as per college policy.

#### Late Work

Late assignments will be accepted with a 7-point penalty up to 24 hours after the due date. Everyone gets one late submission with no penalty. Late work will NOT be accepted more than 24 hours past the due date.

## **Important Dates**

January 18 Last day to drop a class with no record of grade

February 19 Midterm

March 1 Last day to drop a class with a W

March 26 Final Exam

Please make sure that you do not have a conflict with the midterm or the final exam dates as there will be no make-ups.

## **The STEM Success Center**

The STEM Success Center in room 4213, has CS tutors available at various times each day. The STEM Center is also a place on main campus where students without their own computers can do their lab work.

Visit the <u>STEM Success Center website</u> to learn more.

# **Opportunities for CS Students**

Opportunities for CS students is a blog that contains announcements of internships, scholarships, free software offers, pertinent public lectures, etc... Check it out!

## **Resources for Students in Online Courses**

Please visit Student Resources for some useful information from Foothill Online Learning.