THE UNIVERSITY OF UTAH

COMP 1020: Programming for All 2
Fall Semester 2021
Mondays and Wednesday, 12:55PM – 1:45PM; WEB L102

Instructor: Fernando J. Rodríguez
Email: fernando.rodriguez@utah.edu
Office Hours: Mondays and Wednesdays, 2:00PM – 3:30PM
Office Location: Building 72, Room 242
Link to Zoom Conference Office Hours: https://utah.zoom.us/j/95712370313

Course Description
This course is part of a two-course sequence designed for non-CS major students who desire a practical course for gaining basic computer programming skills. Like its prequel, this course will use the Python language to develop skills in problem-solving, debugging, acquiring real-world data, processing data, and interacting with and visualizing solutions. The prequel course focused on showing the power of writing small programs that leverage existing code to create interesting applications. This course will build on those fundamentals and introduce object-oriented design principles that help facilitate building more extensive applications. Examples from a variety of fields will be used to illustrate the utility of computers and programming. Students should leave the course with the confidence and ability to write useful, small-scale programs in their area of interest.

Course Outcomes
By the end of this course, you will be able to:
- write small functions, classes, and scripts in Python to accomplish desired tasks
- debug and modify small programs
- use object-oriented constructs within their programs
- take a real-world task and see how to use programs to automate or analyze that task
- use tools to manage larger projects, such as version control systems and testing
- make a modern application with a GUI toolkit

Required Materials

Website. The class website is the Canvas course page available through CIS. It will be updated throughout the semester with the class schedule, lecture notes, laboratory exercises, assignment specifications, and much more.

Lecture Notes. The instructor will often make use of slides and other documents during the lecture. These documents will be posted on the class website following the lecture; however, such posted documents may not represent completely the material covered in class. Students who must miss class are strongly encouraged to check with a classmate or TA.

Python. All programming in COMP 1020 is in Python, using the PyCharm programming environment. Python is available for your use on the College of Engineering's lab machines. Instructions for installing these resources on your personal computer is available on the class website in the Class Resources module.

New students should create a College of Engineering lab account at:
https://webhandin.eng.utah.edu/cade/create_account/index.php

Textbook. There is no mandatory textbook for this class. There will be select readings from the internet and a free eBook we will be using. See the Course Resources module for more information.

Student Evaluation

Programming Assignments. The instructions for each assignment and its due date will be posted on the class website. It is the student's responsibility to ensure the successful and timely submission of each programming assignment – start early and follow instructions carefully. Corrupted or missing files will not be grounds for extensions. Double-check your submissions and save a digital copy of all your work. Your lowest assignment grade will be dropped.

Late Assignments. Assignments turned in after the due date and time will receive an immediate 10% score deduction (e.g., 10 points for a 100-point assignment, 5 points for a 50-point assignment). After 24 hours, the total deduction becomes 20%, and after 48 hours, the score becomes 0%.

Lab Exercises. There are multiple lab sessions on Fridays. Lab attendance at your registered lab session is required and has graded work. Students in labs generally work through online instructions with the aid of the lab TA and answer Canvas quiz questions for grading. We will drop the lowest two lab scores, so that helps you manage unexpected (or expected) problems with attendance. You should review the material in the online lab instructions even if you do not complete the lab quiz. Labs are very beneficial for reviewing material covered in lecture and introducing new material – attendance is expected and graded through the lab quiz mechanism.

In-Class Exams and Final Exam. There will be two in-class exams given on Wednesday, September 29 (midterm 1) and Wednesday, November 3 (midterm 2). Exact dates for midterm exams are subject to change. In addition, there will be a cumulative final exam given on Monday, December 13 from 1:00 pm to 3:00 pm. These exams cannot be missed except for a documented medical emergency.

Participation. Participation will be measured through a few online quizzes and through participation in audience response questions. In general, these scores will be converted into more of a participation score than a correctness score. Several audience response scores will be dropped (or excused).

Final Course Grade:

In-Class Exams	16%
Final Exam	12%
Labs	10%
Assignments	52%
Participation	10%

Your weighted, cumulative course percentage score is turned into letter grades using the following scheme:

[100 - 94]	A
(94 – 90]	A-
(90 – 87]	B+
(87 – 84]	B
(84 – 80]	B-
(80 – 77]	C+
(77 – 74]	C
(74 – 70]	C-
(70 – 67]	D+
(67 – 64]	D
(64 – 60]	D-
(60 – 0]	E

where [ ] means the number score is included, and ( ) means the score is up to but not including the number

Regrades. Students who wish to appeal a score on an assignment, a lab, a quiz, or a test must do so within **one week** of receiving the score. Look under Course Resources for this process.

Getting Help

Instructor Office Hours. See the link at the top of the course website under Course Resources

Teaching Assistants and Consulting Hours. See the link at the top of the course website under Course Resources for the consulting schedule of the course TAs. During consultation, use the TA queue (also on the class website) to alert the TA on duty that you have a question. TA hours are held in the CADE lab; see the link for more information.

Communication. For questions outside of class and consulting hours, students are encouraged to use Canvas discussion boards. There will be a board for each assignment, lab, and exam, as well as a board for general questions. The course staff will regularly check

the discussion boards, but students are more than welcome to respond to any questions they know the answer to. Course staff will indicate if a student response is a good response to the question. Please do not post your entire Python code on the discussion boards; short code snippets are acceptable.

To send urgent messages to everyone in the class, such as corrections to assignments or changes in due dates, the course staff will make announcements through Canvas. You should make sure you are getting notifications and checking Canvas regularly.

Course Guidelines

Behavior in the classroom. All students are expected to maintain professional behavior, according to www.regulations.utah.edu/academics/guides/students/studentRights.html (the University of Utah Student Code). Students should read the Code carefully and know that they are responsible for the content. According to Faculty Rules and Regulations, it is the faculty's responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee.

Students are expected to engage with the instructor and classmates during class meetings. Students are permitted to use a laptop or mobile device to take notes or to participate in course questions. Use of a laptop or mobile device for any other purpose is not permitted, and students who do so will be asked to leave the classroom. While you may consider it a right to casually browse the web, engage in social media, or play games during a lecture, such activity is very distracting to others (especially in a crowded classroom) and is not permitted.

Working together. Students are encouraged to discuss assignments and laboratory exercises with fellow classmates, but each student is responsible for formulating and writing their own answers. Examples of cheating include the following: sharing written or electronic work either by copying, retyping, looking at, or supplying a copy. Examples of not cheating include the following: discussing concepts, answering questions about concepts or clarifying ambiguities, or helping someone understand how to use the class tools and software.

Students may occasionally be required to work on assignments or lab exercises in pairs or small groups. Guidelines and rules for working together will be posted with such assignments.

Cheating is taken very seriously, and students must be careful not to collaborate on assignments intended to be completed individually.

Submissions are routinely checked by the course staff for signs of unauthorized collaboration.

There must be no collaboration during tests or the final exam. Please see the University of Utah Student Code for a detailed description of the university's policy on cheating.

Any student found cheating will fail the entire course.

University Policies

1. ***Drop/Withdrawal Policies.*** Students may drop a course within the first two weeks of a given semester without any penalties. Students may officially withdraw (W) from a class or all classes after the drop deadline through the midpoint of a course. A "W" grade is recorded on the transcript and appropriate tuition/fees are assessed. The grade "W" is not used in calculating the student's GPA. For deadlines to withdraw from full-term, first, and second session classes, see the U's Academic Calendar.

   College of Engineering Guidelines. For more information on withdrawing from courses, appealing grades, and more, see the College of Engineering guidelines at https://www.coe.utah.edu/students/current/semester-guidelines/.

2. ***The Americans with Disabilities Act***. The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.

3. ***University Safety Statement.*** The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.

4. ***Addressing Sexual Misconduct***. Title IX makes it clear that violence and harassment based on sex and gender (which Includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the

Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

5. ***Student Names and Personal Pronouns***. Class rosters are provided to the instructor with the student's legal name as "preferred first name" (if previously entered by you in the Student Profile section of your CIS account). Please advise me of any name or pronoun changes (and update CIS) so I can help create a learning environment in which you, your name, and your pronoun will be respected. If you need assistance getting your preferred name on your UID card, please visit the LGBT Resource Center, Room 409 in the Olpin Union Building, or email bpeacock@sa.utah.edu to schedule a time to drop by. The LGBT Resource Center hours are M-F 8am – 5pm, and 8am – 6pm on Tuesdays.

6. ***Student Wellness***. Your personal health and wellness are essential to your success as a student. Personal concerns like stress, anxiety, relationship difficulties, depression, or cross-cultural differences can interfere with a student's ability to succeed and thrive in this course and at the University of Utah.

   Please feel welcome to reach out to your instructor or TA's to handle issues regarding your coursework. For helpful resources to manage your personal wellness and counseling options, contact:
   Center for Student Wellness
   801-581-7776
   wellness.utah.edu
   2100 Eccles Student Life Center
   1836 Student Life Way
   Salt Lake City, UT 84112
   Women's Resource Center
   801-581-8030
   womenscenter.utah.edu
   411 Union Building
   200 S. Central Campus Dr.
   Salt Lake City, UT 84112

7. ***Veteran's Center.*** The mission of the Veterans Support Center is to improve and enhance the individual and academic success of veterans, service members, and their family members who attend the university; to help them receive the benefits they earned; and to serve as a liaison between the student veteran community and the university.

   For more information about what support they provide, a list of ongoing events, and links to other resources, view their website or contact:

   Veterans Support Center
   801-587-7722

veteranscenter.utah.edu
418 Union Building
200 S. Central Campus Dr.
Salt Lake City, UT 84112

8. ***Learners of English as an Additional/Second Language***. If you are an English language learner, there are several resources on campus available to help you develop your English writing and language skills. Feel free to contact:

   Writing Center
   801-587-9122
   writingcenter.utah.edu
   2701 Marriott Library
   295 S 1500 E
   Salt Lake City, UT 84112

   English for Academic Success (EAS) Program
   801-581-8047
   linguistics.utah.edu/eas-program
   2300 LNCO
   255 S. Central Campus Dr.
   Salt Lake City, UT 84112
   English Language Institute
   801-581-4600
   continue.utah.edu/eli
   540 Arapeen Dr.
   Salt Lake City, UT 84108
9. **Students are required to self-report if they test positive for COVID-19.** To report, please contact:
   COVID-19 Central @ The U
   801-213-2874
   coronavirus.utah.edu (Links to an external site.)

   Masks and face coverings (Links to an external site.) will **no longer** be required at University of Utah facilities beginning Monday, May 24 2021. While masks are no longer required, masks are welcome to be worn in classroom spaces and on campus for those that choose to wear them.

   - Exceptions include:
     - Masks will continue to be required (Links to an external site.) inside the University of Utah Health's dedicated clinical facilities. Regulations vary for other facilities. See full guidelines here (Links to an external site.).
     - Masks will continue to be required on-campus buses and shuttles based on a federal public health order (Links to an external site.).

- All job-related personal protective equipment (PPE) safety requirements will continue to be required consistent with best practices for worker safety.

NOTE: This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced in class and posted on Canvas under Announcements. Additional resources can also be found on Canvas.

Course Schedule

Week	Date	Topic	Assignments
1	Monday, August 23	Course Introduction and Syllabus	
	Wednesday, August 25	Python Review	
2	Monday, August 30	Basics of Object-Oriented Programming	
	Wednesday, September 1	Namespaces, Modules, and Scope	A1
3	Monday, September 6	Labor Day (HOLIDAY)	
	Wednesday, September 8	Strings and Lists	
4	Monday, September 13	Chatbots	A2
	Wednesday, September 15	Problem Solving	
5	Monday, September 20	Web Scraping	
	Wednesday, September 22	Web Scraping 2	A3 (9/24)
6	Monday, September 27	Midterm 1 Review	
	Wednesday, September 29	Midterm 1	
7	Monday, October 4	List Comprehensions	
	Wednesday, October 6	Teamwork and Agile Development	A4 (10/8)
BREAK	Monday, October 11	Fall Break (HOLIDAY)	
	Wednesday, October 13		
8	Monday, October 18	PyGame	
	Wednesday, October 20	PyGame 2	
9	Monday, October 25	PyGame Collisions	
	Wednesday, October 27	Actions on Lists and Using Tuples	A5 (10/29)
10	Monday, November 1	Midterm 2 Review	
	Wednesday, November 3	Midterm 2	
11	Monday, November 8	Inheritance	
	Wednesday, November 10	Method Overriding	
12	Monday, November 15	User Interfaces	
	Wednesday, November 17	Qt Applications – Timers	A6
13	Monday, November 22	Qt Applications – Menus and Sliders	
	Wednesday, November 24	Tools for Teamwork	
14	Monday, November 29	Recursion	
	Wednesday, December 1	Midterm 1 Recap	

15	Monday, December 6	Midterm 2 Recap	
	Wednesday, December 8	Final Exam Review	A7
Final	Monday, December 13	Final Exam (1pm – 3pm)	