CSc 120 - Introduction to Computer Programming II  
(Summer 17)  
1-3 pm, MWF, Gould-Simpson 906

Description of Course
This course provides a continuing introduction to programming with an emphasis on problem solving. It considers problems drawn from a variety of domains (including Computer Science) and emphasizes both the broader applicability of the relevant data structures and programming concepts, as well as the implementation of those structures and concepts in software. Topics include lists, stacks, queues, trees, searching and sorting, and exceptions.

Course Prerequisites or Co-requisites
CSc 110 or prior programming experience with Python or a comparable programming language. Students should be able to decompose simple problems, write short programs (20-50 lines) that incorporate simple control and data structures (if, for, while statements; array and list data structures), and test and debug simple programs.

Instructor and Contact Information
Instructor: Russell Lewis

Russell Lewis
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Tel: n/a
Email: russelll@cs.arizona.edu

TAs:
Tito Ferra
Office: Gould/Simpson 934
Email: ferra@cs.arizona.edu

Mallory Walsh
Office: Gould/Simpson 934
Email: walshmallory@cs.arizona.edu

Office Hours
(Exact office hours subject to change, consult the class webpage for up-to-date information.) Additional hours may be available by appointment.

Russell Lewis
MWF 10-12 am G/S 850
I’m often in the office, even if my door is closed. Feel free to knock!

TAs
Mallory Walsh Th noon-4 pm G/S 934
Tito Ferra Tu 2-6 pm G/S 934

Websites
Class Homepage:  http://www2.cs.arizona.edu/classes/cs120/summer17/
Piazza:  https://piazza.com/arizona/summer17/csc120
D2L:  https://d2l.arizona.edu/d2l/home/592208
Recordings on Panopto: Access through “UA Tools” menu on D2L

Course Format and Teaching Methods
Lecture will be three times a week. Students are expected to attend all lectures although attendance will not be taken. Online students are expected to view lecture recordings (through Panopto) promptly.

Section activities (once a week, on Friday) will be collected; students will not be graded for correctness but rather for participation in the activity. Online students will submit their section activities through D2L; again, they will be graded not for correctness, but for participation. If online students have questions about section activities, they are expected to ask questions on Piazza. These questions serve as the participation grade for the section activity.

Course Objectives and Expected Learning Outcomes
Students who successfully complete this course should be able to:
- effectively decompose simple programming problems
- comfortably write moderate-sized (100-300 line) programs incorporating a variety of control and data structures
- debug and test programs

Absence and Class Participation Policy
The UA’s policy concerning Class Attendance, Participation, and Administrative Drops is available at http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable: http://policy.arizona.edu/human-resources/religious-accommodation-policy.

Absences preapproved by the UA Dean of Students (or dean’s designee) will be honored. See https://deanofstudents.arizona.edu/absences

Participating in the course and attending lectures and other course events are vital to the learning process. As such, attendance is required at all lectures and discussion section meetings. Students who miss class due to illness or emergency are required to bring documentation from their health-care provider or other relevant, professional third parties. Failure to submit third-party documentation will result in unexcused absences.

Makeup Policy for Students Who Register Late
Students who register for class late will be allowed to make up missed assignments. All missed assignments will be due at the same time as the second homework/project. Students will not be allowed to register for the class more than four days after it begins, save in truly exceptional circumstances.

Course Communications
The primary path for outside-lecture communications will be Piazza. If a student has an issue which cannot reasonably be resolved through Piazza (inappropriate to discuss publicly, private issue, etc.), then the student may email the instructor.

Required Texts or Readings
[Optional] Problem Solving with Algorithms and Data Structures using Python (2nd Ed.), by
Nothing will be assigned out of this book; it is mentioned here as a possible reference for students who would like one. Students will receive all of the information they need to complete their assignments through class resources.

**Required or Special Materials (if any)**

None

**Required Extracurricular Activities (if any)**

None

**Assignments and Examinations: Schedule/Due Dates**

**Projects**

This class will have programming projects due every week (except the last). Projects will have two components:

- “Short” programming problems, completed (and auto-graded) on CloudCoder: [http://practice.cs.arizona.edu/](http://practice.cs.arizona.edu/). These are due on Monday at 9pm and the TAs will grade them for style. Feedback will be given by Wednesday.
- “Long” programming problems, typically related to the short problems. These will be turned in through D2L and will be due on Friday at 1pm.
- The first project consists only of the long problems (no short ones) and will be due on Monday, Jun 12 at 1pm.

The following schedule gives approximate due dates for each project. It is possible we might push back due dates and/or reduce the number of assignments, however, we will not add additional ones, or move due dates earlier.

- **Project 1** due on or about **Mon, Jun 12**
- **Project 2** due on or about **Fri, Jun 16**
- **Project 3** due on or about **Fri, Jun 23**
- **Project 4** due on or about **Fri, Jun 30**
- **Project 5** due on or about **Fri, Jul 7**
- **Project 6** due on or about **Fri, Jul 14**
- **Project 7** due on or about **Fri, Jul 21**
- **Project 8** due on or about **Fri, Jul 28**
- **Project 9** due on or about **Fri, Aug 4**

**Late Days**

Each student will be allocated 2 “Late Days” which may be used through the semester. These can only be used on the “long problem” portion of projects - not on any other assignment. Each assignment will have a second drop box in D2L, which closes 24 hours later than the normal due date.

No individual assignment may be more than 24 hours late. Projects turned in more than 24 hours late - or additional late assignments after the first three - will not be accepted. The first and last assignments will not be eligible for any late days.

Additionally, this course does not allow re-submission of work after the due date (or Late Day) has passed.

**Section Activities**
Each week, during Friday’s lecture, we will have a Section Activity, which will be an in-class activity to practice the week’s material. In-class students will turn it in at the end of lecture; online students will turn it in through D2L.

For both sections, the activity will not be graded for correctness, but rather for participation. This means that in-class students must work on it during lecture. Online students are expected to ask their questions on Piazza; these questions demonstrate their active participation in the activity. (No questions are required if the student understands the activity.)

Quizzes
On each week (including the first) - except for weeks with Tests - we will have a Quiz on Wednesday. Quizzes will be 15 minutes long, followed by lecture. Online students will turn in their answers through D2L; they will be due at 1pm on Friday.

Midterms
This class will have 2 midterm exams. Each will be given during lecture, during the first half of lecture (50 minutes). After the test is complete, we will do some more lecture.

Online students will take the exams using the Examity service. The exams will be available beginning 24 hours before the in-class students take it and must be completed by 3pm on class day so that we can immediately begin grading.

Tests will be given on the following days:

Exam 1 Wed, Jun 28
Exam 2 Wed, Jul 19
Final
The final exam will also be 50 minutes and will be given on the last day of class:

Wed, 9 Aug, 1-2 pm

Online students will complete this in the same way as the midterms.

Final Examination or Project

A final exam will be given (see times listed above); the times are set by the University. Location of the Final is in the normal classroom.

University Policies and Schedule

Grading Scale and Policies

Grading Scale
I will use a simple grade cutoff scheme. This means that if you earn the number of points listed for a given grade, you are guaranteed that grade. At the end of the semester, I reserve the right to lower these cutoffs, meaning that it might be easier to earn a good grade (but it is unusual for me to do so). However, I guarantee that I will not raise these cutoffs (making it harder to earn a good grade).

- 90% A
- 80% B
- 70% C
- 60% D

Point Distribution
Points will be distributed as follows:
• 40% Projects
• 5% Section Activities
• 10% Quizzes
• 30% Midterms
• 15% Final Exam

Within each category, points are distributed evenly; that is, every test is worth the same as every other, and every program is worth the same as every other. Thus, the exact value of each item will depend on the number of each item that is assigned.

The lowest Quiz grade will be dropped, as well as the lowest 2 Section activities. No other grades will be dropped.

Grading Schedule

Project feedback will be available on Wednesday - for the most recent long problems (due the Friday before) and the most recent short problems (due the Monday before). If exceptions have to be made occasionally, staff will inform the students about the delay and the reason for it.

Tests will be graded within 10 days.

University Policies

University policy regarding grades and grading systems is available at http://catalog.arizona.edu/policy/grades-and-grading-system

Requests for incomplete (I) or withdrawal (W) must be made in accordance with University policies, which are available at http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete and http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal, respectively.

Dispute of Grade Policy

If you have an issue with how a quiz, project, or exam was graded, you must submit a request for a regrade (through email) to within 7 days of when the item was returned to you.

Honors Credit

Unfortunately, I am not able to offer Honors Credit for this course this semester.

Scheduled Topics/Activities

For a list of assignment and test dates, please see the “Assignments and Examinations: Schedule/Due Dates” section above.

The lectures will cover the following material. Note that this schedule is approximate, and may need to be modified slightly during the semester.

Students are responsible for all material covered in lecture (as well as the required reading), even if the actual lectures deviate from this overview.

Week 1  Jun 5 - Jun 9  Class Intro, Python Review
Week 2  Jun 12 - Jun 16  Top-Down Design, Basics of OOP
Week 3  Jun 19 - Jun 23  Debugging; Intro to Invariants
Week 4  Jun 26 - Jun 30  Exceptions; Testing; Complexity
Week 5  Jul 3 - Jul 7  Arrays; References
Week 6  Jul 10 - Jul 14  List Comprehensions; Linked Lists
Week 7  Jul 17 - Jul 21  Recursion; Sort and Search
Week 8  Jul 24 - Jul 28  Trees
Week 9  Jul 31 - Aug 4  Loop Invariants; Advanced OOP
Week 10  Aug 7 - Aug 9  Advanced topics

Department of Computer Science Code of Conduct

rev. 8/4/16
The Department of Computer Science is committed to providing and maintaining a supportive educational environment for all. We strive to be welcoming and inclusive, respect privacy and confidentiality, behave respectfully and courteously, and practice intellectual honesty. Disruptive behaviors (such as physical or emotional harassment, dismissive attitudes, and abuse of department resources) will not be tolerated. The complete Code of Conduct is available on our department web site. We expect that you will adhere to this code, as well as the UA Student Code of Conduct, while you are a member of this class.

Classroom Behavior Policy
To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.).

Students are asked to refrain from disruptive conversations with people sitting around them during lecture. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

The use of personal electronics such as laptops, iPads, and other such mobile devices is distracting to the other students and the instructor. Their use can degrade the learning environment. Therefore, students are not permitted to use these devices during the class period.

Inclusive Excellence is a fundamental part of the University of Arizona’s strategic plan and culture. As part of this initiative, the institution embraces and practices diversity and inclusiveness. These values are expected, respected and welcomed in this course.

Threatening Behavior Policy
The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students.

Elective Name and Pronoun Usage
This course supports elective gender pronoun use and self-identification; rosters indicating such choices will be updated throughout the semester, upon student request. As the course includes group work and in-class discussion, it is vitally important for us to create an educational environment of inclusion and mutual respect.

Accessibility and Accommodations
Our goal in this classroom is that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also welcome to contact the Disability Resource Center (520-621-3268) to establish reasonable accommodations. For additional information on the Disability Resource Center and reasonable accommodations, please visit http://drc.arizona.edu.

If you have reasonable accommodations, please plan to meet with me by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate.

Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

Code of Academic Integrity
Students are encouraged to share intellectual views and discuss freely the principles and
applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity.

The University Libraries have some excellent tips for avoiding plagiarism, available at http://www.library.arizona.edu/help/tutorials/plagiarism/index.html.

Selling class notes and/or other course materials to other students or to a third party for resale is not permitted without the instructor’s express written consent. Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

UA Nondiscrimination and Anti-harassment Policy
The University is committed to creating and maintaining an environment free of discrimination; see http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy.

Our classroom is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. We also want to create a tolerant and open environment where such opinions can be expressed without resorting to bullying or discrimination of others.

Additional Resources for Students
UA Academic policies and procedures are available at http://catalog.arizona.edu/policies.

Student Assistance and Advocacy information is available at http://deanofstudents.arizona.edu/student-assistance/students/student-assistance.

Confidentiality of Student Records

Subject to Change Statement
Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.