CS 61A
Summer 2025

Getting Started

Discussion 0: June 24, 2025

The Course Website

Welcome to CS 61A! We have various resources on the course site which you might find helpful as you go through the course during the semester.

Here's a summary of some of these resources. You can follow along with the navigation bar at the top of the page.

- Lecture Calendar:
  - Weekly schedule in the course, including lecture, assignment due dates, and exam times.
- Syllabus:
  - Policies for the course regarding assignments, grades, DSP and accommodations, and other parts of the course.
- Ed:
  - The course forum. Feel free to ask questions about the content or logistics here. Make sure to famaliarize yourself with the policies and guidelines for using Ed!
- Office Hours:
  - In-person office hours, where you can join other students in a larger room to work collaboratively, and join a queue to get help from course staff
- Contact:
  - Various ways you can contact course staff if you have questions, or concerns.
  - Feedback forms for the instructors, staff, or department.
  - The extension form and accommodation appointments calendar are linked here, in addition to being listed on the course syllabus and listed under the "Resources" dropdown.
  - If a student or staff member makes you feel uncomfortable at any point during the semester, that doesn't represent everyone, and that incident should be reported. The contact page has the anonymous feedback form and the EECS contact form.
- Links and Resources:
  - Request an Extension:
    - We will approve any extension up to 24 hours on any non-extra credit assignment for any reason, no-questions-asked. You can find more details about our extension policy in the extension form.
  - Request a Regrade:
    - Please submit a regrade request if you found any issues with how your assignment was graded.
  - Past Exams and Websites:
    - Past exams (grouped by topic or semester) and study guides. Some past exams have video walkthroughs.
  - PythonTutor:
    - This allows you to run Python code and visualize the corresponding environment diagram for the execution of the code.
  - Code Editors:
    - The CS 61A web editor. You can run doctests and use the interpreter. It has support for Python, Scheme, and SQL. It can visualize environment diagrams following the execution of your code for debugging. Moreover, it can visualize trees, lists, and linked lists. Any files you save here get saved on your local storage. You can also edit okpy backups, but you *cannot* run `ok` tests.
  - Department/Campus Resources:

        - ∗ These are resources, not necessarily specific to CS 61A, that many students find helpful, e.g., campus and department advising, mental health resources, basic needs resources, etc. If you know of a resource that we should add to this page, let us know!

- Guides:
    - Tips for debugging, preparing for exams, and resources we'll provide you with during exams.
- Staff:
    - The list of everyone on course staff, with contact information.

Lost on the Moon

Your spaceship has just crashed on the light side of the moon. You were scheduled to rendezvous with a mother ship 200 miles away on the lighted surface of the moon, but the rough landing has ruined your ship and destroyed all the equipment on board except for the 15 items listed below (note: you are able to consume food/water/medicine inside your space suit).

Your crew's survival depends on reaching the mother ship, so you must choose the most critical items available for the 200-mile trip. Your task is to rank the 15 items in terms of their importance for survival. Place a number 1 by the most important item, number 2 by the second most important, and so on, through number 15, the least important.

Item	Your Rank (1)	Group's Rank (2)	NASA's Rank (3)
Box of matches			
Food concentrate			
50 feet of nylon rope			
Parachute silk			
Solar-powered portable heating unit			
Two .45 caliber pistols			
One case of dehydrated milk			
Two 100-pound tanks of oxygen			
Stellar map (of the moon's constellations)			
Self-inflating life raft			
Magnetic compass			
5 gallons of water			
Signal flares			
First-aid kit containing injection needles			
Solar-powered FM receiver-transmitter			

Error points are the absolute difference between your rankings and NASA's (disregard plus or minus signs).

- 0—25: excellent
- 26—32: good
- 33—55: fair
- 56—70: oops
- 71—112: oh well

Item	NASA's Reasoning	NASA's Rank
Box of matches	No oxygen to sustain flame, virtually worthless	15
Food concentrate	Efficient means of supplying energy requirements	4

50 feet of nylon rope	Useful in scaling cliffs, tying injured together	6
Parachute silk	Protection from sun's rays	8
Solar-powered portable heating unit	Not needed unless on dark side	13
Two .45 caliber pistols	Possible means of self-propulsion	11
One case of dehydrated milk	Bulkier duplication of food concentrate	12
Two 100-pound tanks of oxygen	Most pressing survival need	1
Stellar map (of the moon's constellations)	Primary means of navigation	3
Self-inflating life raft	CO_2 bottle in military raft may be used for propulsion	9
Magnetic compass	Magnetic field on moon is not polarized; worthless for navigation	14
5 gallons of water	Replacement for tremendous liquid loss on lighted side	2
Signal flares	Distress signal when mother ship is sighted	10
First-aid kit containing injection needles	Needles for vitamins, medicines, etc., will fit special aperture in NASA space suits	7
Solar-powered FM receiver-transmitter	For communication with mother ship; but FM requires line-of-sight transmission and short ranges	5

Note: This worksheet is a problem bank—most TAs will not cover all the problems in discussion section.

Secrets to Success in CS 61A

CS 61A is definitely a challenge, but we all want you to learn and succeed, so here is a collection of various tips that might help in your journey:

- Find what works for you.
  - There are many different ways to succeed in 61A—we've found that the below advice applies to almost all students, but there are going to be different things that work best for different people, and we recommend exploring different study and work strategies that will work well for you. If you ever want to talk with a TA about your approach, feel free to reach out to them.
- Ask questions.
  - If you encounter something you don't know or aren't sure about a concept or problem, *ask* away. We're here to help you learn, and if you ask a question, that tells us where we can help with your understanding of the material. The process of asking questions itself can also be helpful in figuring out for yourself what you would specifically like to ask about, and in therefore pinpointing concepts that you believe you can learn more about.
- Study in groups.
  - Again, this class is not an easy course for most students; you might feel overwhelmed going at it alone. Send a message and reach out to other students in the class; work together on assignments or study together to prepare for exams, as long as you don't violate the course policy on Academic Honesty as stated in the Syllabus.
- When stuck on a problem, try to verbally explain the area in which you are stuck.
  - This doesn't need to require a person who understands how to solve the problem (or even a person—this practice is often referred to as **rubber ducking**, since you can take a rubber duck and consider it your practice audience), because the main goal is for you to clarify your own thoughts and figure out where exactly you're getting stuck with your understanding and code. From there you can focus on that portion to better your understanding.
- If you're still feeling stuck, feel free to make use of the class Ed Page (our course forum for asking and answering questions) or attend office hours.
- Office hours gives you time with the instructors or staff by themselves, and you will be able to get some (nearly) one-on-one instruction. You are *not* intruding; the instructors and staff are here to help as you learn.
- Do (or at least attempt seriously) all the homework. We do not give many homework problems, but those we do give you may find to be challenging, time-consuming, and rewarding. Learn to enjoy the challenge! That's how you'll develop your skills in this class and elsewhere. Please don't use ChatGPT to do the homework—not only is this against our course policy on academic misconduct, but you will also learn less.
- Do all the lab exercises. Most of them are designed as more of an introduction to the course material, and may take around the length of a lab section. This is a great time to get acquainted with new material. Feel free to ask the staff members in your lab section or come to office hours if you would like more guidance. Optional lab questions are 'optional' in the sense that they are extra practice, but they are still material that's in scope. Make sure you do them if you have time.
- Do the readings before lecture. They can be helpful in offering an overview of the material covered in lecture and other aspects of the class, as well as being a reference as part of the overall textbook that you can refer to as you go through the course.

- When preparing for the exams, **do past exam questions**!
  - Lecture, lab, and discussion provide a great introduction to the material, but the main way to learn how to solve exam-level problems is to do exam-level problems. You can find past exams (and other resources) under the Resources tab of the website. Many past exams also have solutions or walkthrough videos where past staff members may walk you through the solution to the exam.