

Welcome to CS 61A!

Lecture will begin at 2:10pm.

(Until then, you just get to watch us type.)

Looking for something to do?
Try reading the "Syllabus" link at the top of cs61a.org

Feel free to ask questions in the Zoom chat.

Welcome to CS 61A

Your Instructors

John DeNero

denero@berkeley.edu

CS 61A instructor every Fall since 2011
(and some Spring semesters as well)

Teaching Professor in EECS and help with
the Data Science undergraduate program

Research focused on machine translation

Office hours start next week (Aug 30):

- 2–3 Tuesday in 101A Warren Hall
- 8:45–9:30 Friday on Clark Kerr Track
- 10:15–10:45 Friday on Memorial Glade



Justin Yokota

jyokota@berkeley.edu

First semester teaching 61A!

Prior to this, taught 61C as a TA/Head
TA/Instructor for 9 semesters

Master's at Berkeley working in
computational game theory

Office hours start next week (Aug 30):

- 1–2 Tuesday & Thursday in 781 Soda
- 4–5 Tuesday in 101A Warren Hall
- 2–3 Monday & Wednesday in 781 Soda

61A Course Staff



<https://cs61a.org/TAs/>

<https://cs61a.org/tutors/>

About the Course

Parts of the Course

Lecture: Videos posted to cs61a.org *before* live lecture

Lab: Practice ideas from lecture on a computer (often in pairs)

Discussion: Practice ideas from lecture on paper (often in groups)

Assignments: Weekly homework + 4 large projects

Staff Office Hours: Get 1-on-1 help with assignments & work with peers

Online textbook: <http://composingprograms.com>

Monday–Wednesday: Attend lab and complete the lab assignment

Wednesday–Friday: Attend discussion

Watch (or to go) lecture before you show up to lab/discussion!

Sunday/Monday/Tuesday: Start on the homework or project

Wednesday/Thursday: Finish the homework or project

Friday: Finish projects you didn't finish on Thursday

Asking Questions



Ed: All staff (private posts) and students (public posts)

cs61a@berkeley.edu: Head TAs and both instructors

denero@berkeley.edu or jyokota@berkeley.edu: Often the slowest option

cs61a.org: Self-service answers to many questions

cs61a.org/contact/: Even more ways to reach the course staff

An Introduction to Computer Science

What is Computer Science?

The study of

What problems can be solved using computation,
How to solve those problems, and
What techniques lead to effective solutions

Systems

Artificial Intelligence

Decision Making

Graphics

Robotics

Security

Natural Language Processing

..... Answering Questions

Networking

....

Dialog

Programming Languages

....

Translation

Theory

....

Scientific Computing

....

What is This Course About?

A course about managing complexity

Mastering abstraction

Programming paradigms

An introduction to programming

Full understanding of Python fundamentals

Combining multiple ideas in large projects

How computers interpret programming languages

Different types of languages: Scheme & SQL

A challenging course that will demand a lot of you



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Should you take CS 61A?

According to the Syllabus

There is no formal programming-related prerequisite for CS 61A, but...

- Taking the course without any prior programming experience is typically very challenging.
- Most CS 61A students have had significant prior programming experience.
- Students who take the course without prior programming experience typically must work substantially harder to master the material and tend to receive lower final grades in the course.

Students who take the course later often get more out of it due to increased understanding.

CS 10: The Beauty and Joy of Computing

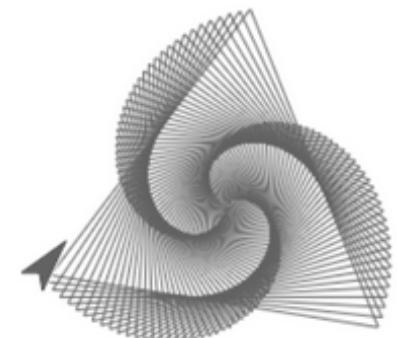
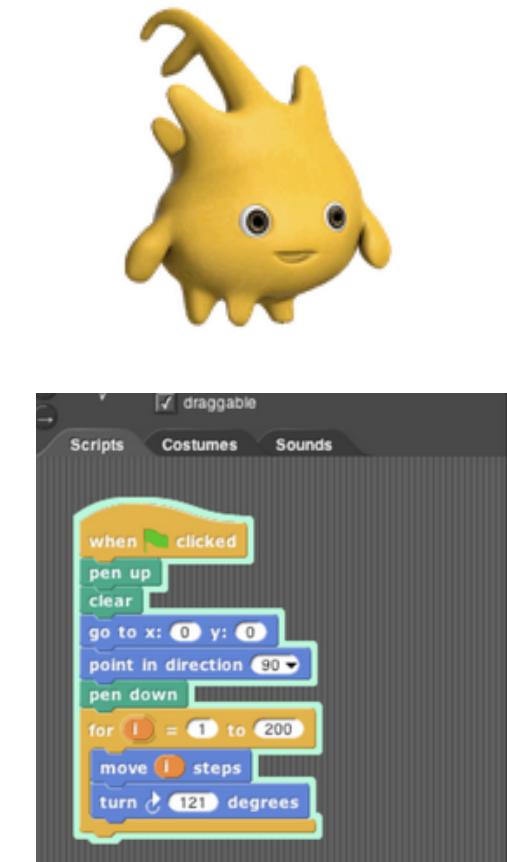
Designed for students without prior experience

A programming environment created by Berkeley,
now used in courses around the world and online

An introduction to fundamentals (& Python)
that sets students up for success in CS 61A

It looks full, but seats are reserved for
students currently enrolled in CS 61A

More info: <http://cs10.org/>



Data C88C (Formerly CS 88): Computational Structures in Data Science

Based on CS 61A, but covers only 3 out of 4 units worth of the content:

- Two programming projects (instead of four) that are adapted from CS 61A projects
- Everything you need to know to continue on to CS 61B
- Omits the unit on how programs run other programs

Designed for students taking Data 8 (Foundations of Data Science), but is now independent

The course might be full, but we're investigating expansion options.

Course Policies

Course Policies

Learning Community Course Staff

Details...

<https://cs61a.org/articles/about/>

Collaboration

Working together is highly encouraged

- Discuss everything with each other; learn from your fellow students!
- Some projects can be completed with a partner
- Choose a partner from your discussion section

What constitutes academic misconduct?

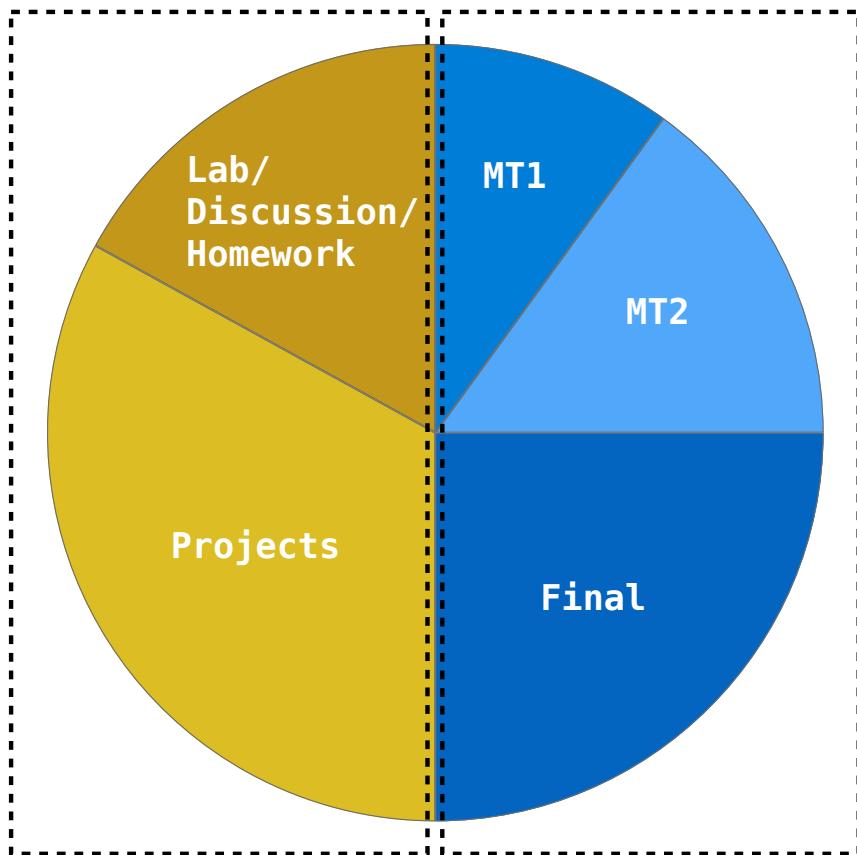
- Please don't look at someone else's code!
Exceptions: lab, your project partner, or **after you already solved the problem**
- Please don't tell other people the answers! You can point them to what is wrong and describe how to fix it or show them a related example
- Copying project solutions causes people to fail the course
- We really do catch people who violate the rules, and we're getting better at it

Build good habits now

How to Succeed in CS 61A

Do all the work!

Exams matter a lot



Exam advice:

Study early & often

Previous exams are a great way to test understanding & problem-solving skills

Assignment advice:

Don't be afraid to ask for help!

Try using external resources (e.g., Google) to understand errors

Try a personal project if you have time

Getting Help

If you're struggling, let us know.

If you need more time, ask for it.

If you need special accommodations, make an appointment.

Course Climate

Let's Stop Harassment & Discrimination

Disparaging remarks targeting a particular gender, race, or ethnicity are not acceptable.

From the Berkeley Principles of Community:

"We affirm the dignity of all individuals and strive to uphold a just community in which discrimination and hate are not tolerated."

From the EECS department mission:

"Diversity, equity, and inclusion are core values in the Department of Electrical Engineering and Computer Sciences. Our excellence can only be fully realized by faculty, students, and staff who share our commitment to these values."

All faculty and staff members are *mandated reporters*. If we ever receive a report of harassment, we must report to the Office for the Prevention of Harassment & Discrimination.

- [CS61A Anonymous feedback form](#): If you want to stay anonymous but make us aware of something happening in the course.
- [EECS Student Climate & Incident Reporting Form](#): Informs the EECS department of any issues. You can also contact Susanne Kauer (skauer@berkeley.edu) directly.

The Best Approach to CS 61A

Help each other understand concepts in the class, whether in section, on Ed, or in study groups, without expectation of anything in return.

Be great project partners by listening to what your partner suggests and helping them understand the work you've done together.

Recognize that we're all valuable members of the CS community!

Composing Programs

(Demo)