Welcome to CS 61A!

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Office hours in 781 Soda:
10:30-11:30 Wednesday (starting next week)
10:00-11:00 Thursday (starting this week)
11:00-12:00 Thursday online (see denero.org)
2:20-5:00 Monday 8/27 (next week only)
By appointment: denero.org/meet.html

Fastest way to get answers: piazza.com/berkeley/fall2018/cs61a
Contact me, Alex, & Nancy: cs61a@berkeley.edu

The 61A Community
52 teaching assistants (TAs), formally known at Berkeley as GSIs or UGSIs:
• Teach lab & discussion sections
• Hold drop-in office hours
• Lots of other stuff: develop assignments, grade exams, etc.

50+ mentors:
• Teach mentoring sections
• Hold drop-in office hours
• Lots of other stuff: homework parties, mastery sections, etc.

250+ academic interns help answer individual questions & check your progress
2,000+ fellow students make CS 61A unique

Parts of the Course
Lecture: Videos posted to cs61a.org before each live lecture
Lab section: The most important part of this course (next week)
Discussion section: The most important part of this course (this week)
Staff office hours: The most important part of this course (next week)
Online textbook: http://composingprograms.com

Weekly homework assignments, three exams, & four programming projects
Lots of optional special events to help you complete all this work

Everything is posted to cs61a.org

An Introduction to Computer Science

What is Computer Science?
The study of...

- Decision Making
- Robotics
- Natural Language Processing
- Translation
- Answering Questions
- Systems
- Artificial Intelligence
- Graphics
- Security
- Networking
- Programming Languages
- Theory
- Scientific Computing
- ...
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 (in Python) that sets students up for success in CS 61A
Fall 2018: Dan Garcia
25 seats available
More info: http://cs10.org/fa18/

Data Science 8: Foundations of Data Science
Fundamentals of computing, statistical inference, & machine learning applied to real-world data sets
More statistics than computer science
Great programming practice for CS 61A
Listed as CS C8
180+ person waitlist
More info: http://data8.org/fa18

Course Policies

Learning
Community
Course Staff

Details...
http://cs61a.org/articles/about.html

Collaboration

Asking questions 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

The limits of collaboration
• One simple rule: Don’t share your code, except with your project partner
• Copying project solutions causes people to fail the course
• We really do catch people who violate the rules, because...
• We also know how to search the web for solutions
• We use computers to check your work

Build good habits now

Expressions

An expression describes a computation and evaluates to a value

\[ 18 + 69 \]
\[ \frac{6}{23} \]
\[ \sin \pi \]
\[ \log_2 1024 \]
\[ 2^{100} \]
\[ f(x) \]
\[ 7 \mod 2 \]
\[ \left| -1869 \right| \]
\[ \sum_{i=1}^{100} \]
\[ \sqrt{1493167} \]
\[ \lim_{x \to \infty} \frac{1}{x} \]

Call Expressions in Python

All expressions can use function call notation
(Demo)
Anatomy of a Call Expression

Evaluation procedure for call expressions:
1. Evaluate the operator and then the operand subexpressions
2. Apply the function that is the value of the operator subexpression to the arguments that are the values of the operand subexpression