Welcome to C106A/206A!

Introduction to Robotics

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Head TAs: Riddhi Bagadiaa (Lab), Sunay Poole (Content)

Presenter: Tarun Amarnath

(u)GSIs

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Head TA - Lab, Admin

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Tarun Amarnath
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Lab TA

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Reader(s) and Lab Assistants

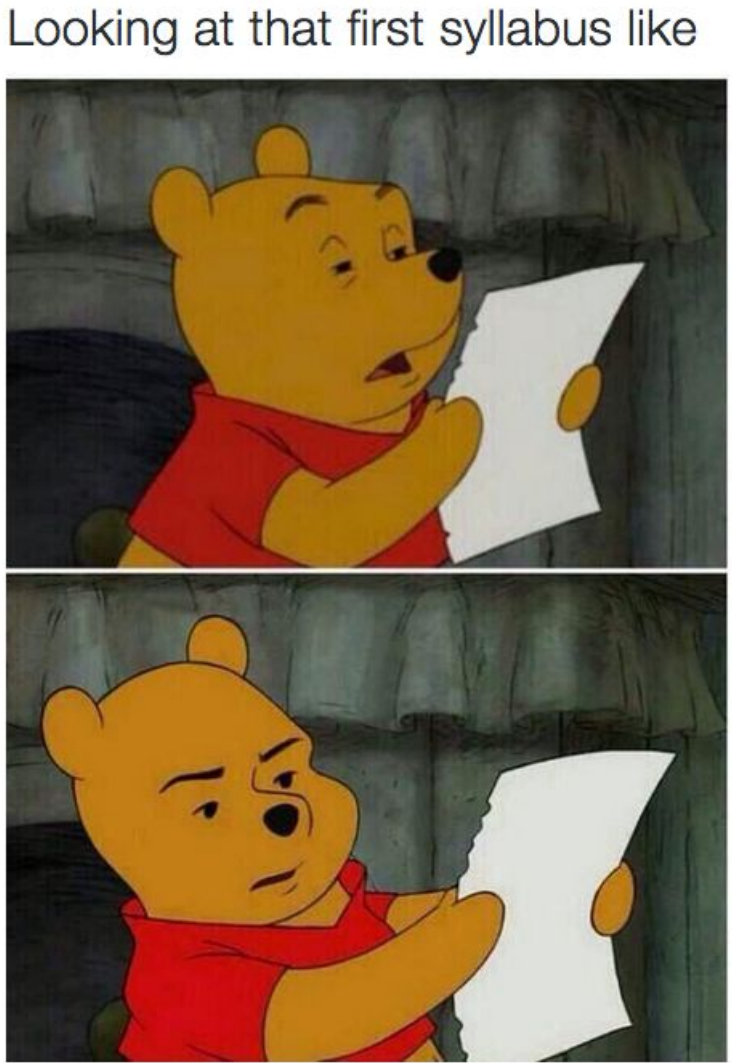
Jewook Ryu
Lab Assistant

Abanob Bostouros
Lab Assistant

Aryaman Jhunjhunwala
Lab Assistant

Zoltan Williamson
Reader

Course Logistics



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Enrollment

- Don’t know how many people will drop, class will not expand
- We have no control over enrollment; speak to advisers
- If you are a grad student in 106A, you may not get credit for the course
    - Speak to your advisers

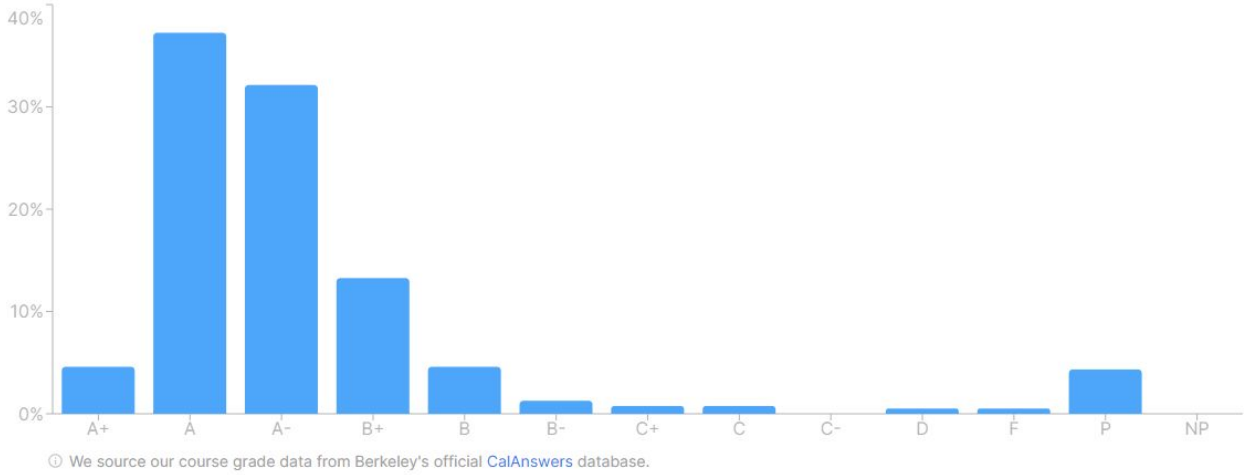
Berkeleytime

EECS C106A | By Semester | Select an option... | Select an option...

EECS C106A

Introduction to Robotics

All Semesters • All Instructors



We source our course grade data from Berkeley's official CalAnswers database.

EECS C106A

Introduction to Robotics

All Semesters • All Instructors

Course Average

A- (3.671)

Section Average

A- (3.671)

3rd-4th Percentile

B- (5/392, 1.3%)

Berkeleytime

EECS C106A

Select an option...

EECS C106A

Introduction to Robotics

All Semesters • All Instructors

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EECS C106A

Introduction to Robotics

All Semesters • All Instructors

Course Average ⓘ

A- (3.671)

Section Average ⓘ

A- (3.671)

3rd-4th Percentile ⓘ

B- (5/392, 1.3%)

This class is NOT an easy A.

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Prerequisites

- Knowledge of **linear algebra**
- Programming in **Python**
- **Curiosity** about how things work
- Interest in **experimental work**
- **Willingness to explore**

EE 120 is not a hard prerequisite

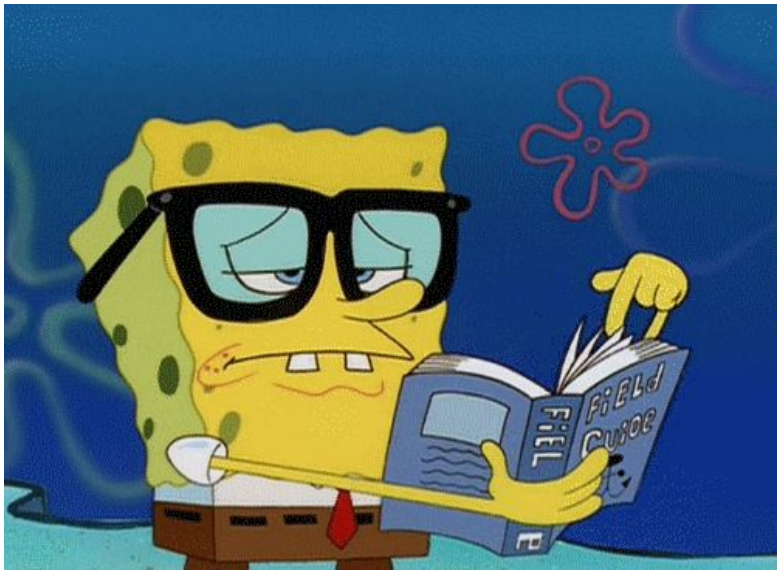
Course Resources

- Course website: https://ucb-ee106.github.io/eecs106a-fa22/
  - Lectures, Webcasts, Labs, Homework, etc
- Ed: https://edstem.org/us/join/pSD4ef
  - Communication, Questions, Homework Solutions
- Gradescope: Code **57KNVR**
  - Turning in homework, midterm, project materials
- Optional Discord https://discord.gg/HW4nxtVSkN
  - Meet your classmates, organize impromptu gatherings
  - Not officially monitored! But staff may check occasionally

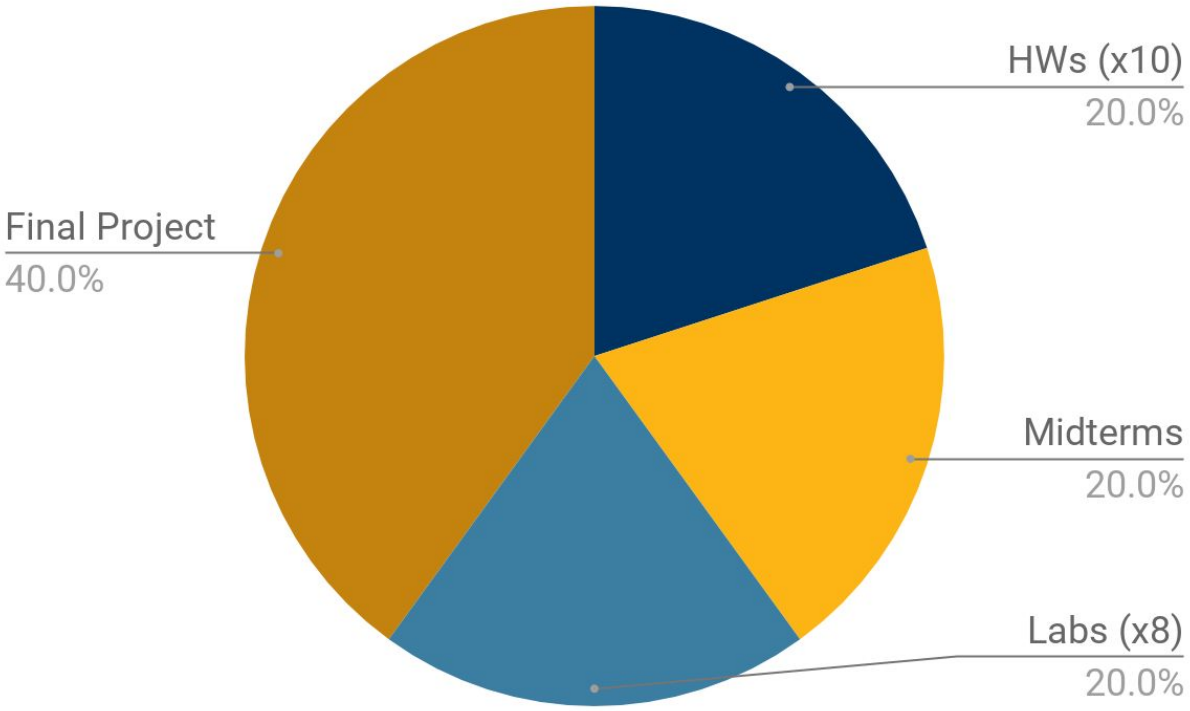
Please stay up to date!

- Weekly Announcements (released Sundays) are required reading
- Check if your question has been answered
- Course Policies
- Ed

Be a sponge absorbing knowledge:



Grading Breakdown



+2% extra credit available!

Homework Policy

Homework Cycle

- Released Wednesdays
- HW parties on Mondays @6-8pm + another hour later in the week
- Due Tuesdays @11:59pm
- Solutions released Fridays (3 days after due date)
- Through early November
- **HW 0 (linear algebra review) will soon be released on Gradescope (due Tuesday 08/30 11:59pm)**

Slip Days & HW Drop

- Five (5) free slip days! No penalty incurred
- Maximum of two (2) slip days on any one assignment
- Cannot be used on Final Project deliverables
- You can earn one (1) homework drop by filling out mid-semester feedback forms

Self Grades

Will be happening!

We just… don’t quite have all the details hammered out yet.

Midterms

- Midterm I: **Thursday, September 29th**
  - Rotations, Kinematics
- Midterm II: **Tuesday, November 15**
  - Jacobians, Dynamics, Controls
- Both midterms will be during class
- Form for DSP accommodations will be sent out soon
- In-class review session
- No final exam!!

Labs

- Please fill out the **Pre-semester scheduling jamboree! By 11:59pm on Friday** to be assigned a lab
  - Will honor lab partner requests
  - Find lab partners via Ed or Discord!
- Ed threads & OH for additional help
- Lab Preparedness Quiz is part of Lab 2
- Labs 1 & 2 are due at the start of the next lab
- **Failure to complete Lab 1 will result in being dropped**

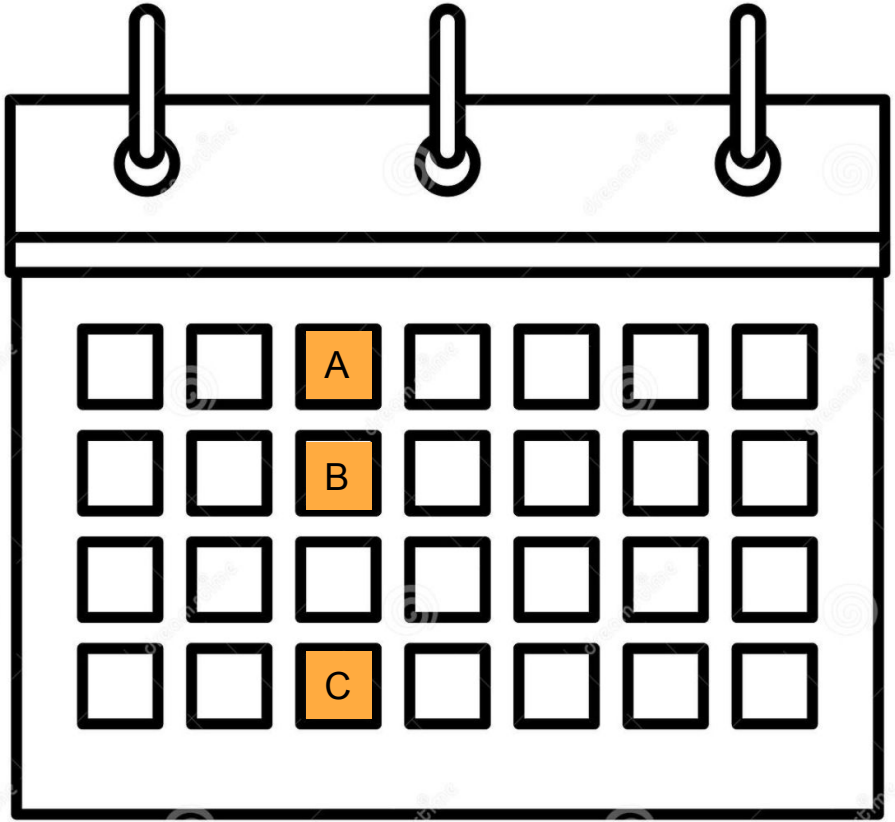
Lab Modules

Week 1: Half the section works on arms (A), half the section works on mobile robots (B)

Week 2: Switch hardware and labs

Week 3: Buffer week (full credit for both labs)

Both labs before the lab section for Lab C



Worried about lab?

- Python/NumPy/Linux bootcamp will happen this weekend/ recorded and posted!
- Time will be posted on Ed soon™

Lecture & Discussion

LECTURE

- Will test out live Ed threads for each lecture to ask questions
- Live lecture will be recorded and linked on the website
- Please step out for food/drink

DISCUSSION

- 1-hr sections dedicated to conceptual help and problem-solving
- 1 section will be remote, recorded, and linked on the website
- Please attend the online discussion on Thursday only if you are fine with being recorded
- **Start today, 8/25**
- **We will only be able to offer 3 discussion sections**
  - 205: R 2-3pm (online & recorded)
  - 201: F 2-3pm
  - 202: F 3-4pm

LOST Section

- Lost and Overwhelmed Students' Turnabout
- NOT a review session
- Different material from regular discussion sections
- Safe space to ask questions without judgment
- Wednesdays 5-7pm, location TBD
    - Starting next week!

Effort, Participation, and Altruism (EPA)

- Up to +2% extra credit! (equivalent to a homework drop)
- Ways to earn EPA
  - attending lecture
  - answering questions on Ed
  - engaging in discussion & lab mini-lecture
  - volunteering to help others when stuck

Office Hours

- Start next week!
- Schedule on website: https://ucb-ee106.github.io/eecs106a-fa22/schedule/
- For HW help: Sunay, Tarun, Max
- For Lab help: Riddhi, Marius, Emma, Han
- For Admin help: Riddhi
- Profs best for deep conceptual questions

Final Project

Students choose their own final projects, but they **must be approved** by course staff. Projects will be done in groups of 4-5.

- Apply **multiple aspects of course material**.
- Include ***sensing***, ***planning***, and ***actuation***.
- **Demonstrate good designer/experimentalist rigor**:
  - What did you measure? What are your assumptions? What did your measurements tell you?
  - How did you evaluate your results? How do you account for error?
  - What lessons did you learn?
  - How does this fit into a grander scheme of things?
- Industry-sponsored projects

Final Project Timeline

- Project Ideas: September
  - We'll release a list of project ideas and hold a discussion in early October
- Mini-proposal: Early October
  - We'll review these and schedule individual meetings with each group
- Project Meetings: Mid-October
- Final Proposal and Parts List: Late October
- Project Work: After Midterm 2
- No more homework, discussions, labs
- Demos: December 8 and 9
- Final Reports: December 16

A college semester is always bananas!

- It’s okay to be stressed.
- We’re here to help.
- Please communicate with us.


WE'RE IN THIS TOGETHER