Caltech 101: An Introduction to Caltech Undergrads

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Objectives: This document contains information and perspectives from Caltech undergraduates part of the undergrad Academics and Research Committee (ARC) on
- the roles of a TA
- general academic overview for undergraduates
- resources for TAs

If you have any questions, please feel free to contact us (ksreedha@caltech.edu, ajhuang@caltech.edu, allopez@caltech.edu, vlambert@caltech.edu) and/or check out the ARC’s website at arc.caltech.edu.

The Role of a TA

- Recitations
  - Supplement lectures
  - Easy to follow examples applicable to sets and handouts with concepts and problems are really nice and appreciated!
  - Can also review difficult problems from sets and quizzes
- Office Hours
  - Very useful when timed around when sets are due (1-2 days before)
  - Can help students individually, together on the whiteboard, or "q & a" style
  - Please don’t give away answers, but checking answers after working through a problem is okay
  - If there are many undergrads in office hours, it’s helpful to start a queue
- Quiz/Midterm/Final Reviews
  - Not required, but an awesome way to help decrease the stress of your students and help out :)
  - Usually coordinated by the head TA and led by only a few TAs
- Aside from class
  - Students may have questions about your research or email you with questions about collaboration, homework, etc. during term
  - Especially before SURF (summer research) applications usually due in February, students may also ask TAs for recommendations letters
**Academics for Undergrads**

- All freshmen take the same background courses in math, physics, chemistry, and biology (called “core classes”)
- All classes during the first two terms are only pass/fail (grades start 3rd term)
- Freshmen choose their majors during 3rd term
- **Sets, quizzes, and tests are generally take home** and taken on the honor code
- Physics sequence: Mechanics and then 2 terms of Electricity and Magnetism
- Math sequence: Single Variable Calculus / Linear Algebra / Multivariable Calculus, so **most students don’t know multi until 3rd term**
  - Courses branch into practical and analytical tracks for math and physics
- Upperclassmen can serve as Deans tutors in the houses and provide tutoring free for other students

**General Information about Undergrads**

- Freshman can be less vocal, so you may have to reach out to them more
- Lack of attendance in lectures/recitations can be typical as the term progresses
- Freshmen are generally very heavily influenced by upperclassmen opinions
- During 3rd term, freshman activity in section and office hours spike (grades start!)

**Resources**

- **Academics and Research Committee (ARC):** that's us! We...
  - Handle various course concerns submitted by students
  - Operate course capture (recording and uploading lectures online)
  - Work with ombuds, students who provide feedback to profs about classes
  - Host the ASCIT Teaching Awards, given 3rd term to 4 profs and 4 TAs nominated and selected by students for their excellent teaching!
- **Board of Control (BoC):** handles Honor Code Violations
  - If you suspect a student of cheating or you think any Honor Code violation has occurred, all you should do is report it to the BoC
  - BoC will take care of the rest (determining whether a violation occurred, consequences) and keep you updated
- **Center for Teaching, Learning, and Outreach (CTLO)**
  - Works closely with the ARC to ensure classes are running smoothly
  - An excellent resource for all sorts of TA-related questions!
  - Contact:
    - Cassandra V. Horii ([cvh@caltech.edu](mailto:cvh@caltech.edu))
    - Jennifer Weaver ([jweaver@caltech.edu](mailto:jweaver@caltech.edu))
- **Hixon Writing Center (HWC)**
  - Usually for humanities/writing-intensive STEM classes
  - Students can get 1 on 1 advice and review papers with an HWC tutor
- **Caltech Undergraduate Admissions Office:** General info about undergraduate life [http://www.admissions.caltech.edu/content/explore](http://www.admissions.caltech.edu/content/explore)