Computer Science Town Hall

Wednesday, February 24
6:00 pm PST
Land Acknowledgement

ACM and UPE at UCLA acknowledge our presence on the traditional, ancestral and unceded territory of the Gabrielino/Tongva peoples.
Agenda

1. Introductions
2. Diversity and Inclusion
3. Academic Curriculum
4. Academic Honesty
Introductions

Professors
Chang, Cho, Cong, Eggert, Gu, Kim, Korf, Millstein, Nachenberg, Nowatzki, Peng, Reiher, Smallberg, Sun

Classes you teach
Favorite spot on campus
Favorite quarantine activity
Structure

- Present survey results
- Ask questions through Slido (can be anonymous)
  - Format: "[Diversity] My diversity question?"
  - Upvote questions you want answered
- Guiding questions
- Open Slido Q&A

Live Questions
tinyurl.com/cs-townhall-2021
Diversity and Inclusion
Diversity Survey: Overview

60+ responses, anonymous

Do you feel that the image of the UCLA CS community is representative of all students, regardless of background, experience, etc?

55 responses

Do you feel like you belong in the CS major?

53 responses

Live Questions
tinyurl.com/cs-townhall-2021
Diversity Survey: Overview

Do you feel like your professors, TAs, and classes are inclusive?

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<td>16 (30.2%)</td>
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52 responses

Is the CS major is welcoming to minorities?

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<td>9</td>
<td>17 (33.9%)</td>
<td>14 (26.5%)</td>
<td>8 (15.5%)</td>
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55 responses

Live Questions
tinyurl.com/cs-townhall-2021
Diversity Survey: Overview

Do you feel supported in UCLA CS?

54 responses

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<thead>
<tr>
<th>Feel supported</th>
<th>Count</th>
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<tr>
<td>None</td>
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<td>13%</td>
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<td>Somewhat</td>
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<td>11.1%</td>
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<td>Fairly</td>
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<td>Very</td>
<td>18</td>
<td>33.3%</td>
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<tr>
<td>Strongly</td>
<td>6</td>
<td>11.1%</td>
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Have you ever experienced implicit bias from the UCLA CS community?

54 responses

- Yes: 48.3%
- No: 53.7%

Live Questions

tinyurl.com/cs-townhall-2021
Survey: Student Comments on Diversity

- “Many TAs and students I feel have underestimated my intellect as a woman. I have had TAs who seemed surprised when I am able to answer questions or do technical work correctly. TAs and Professors in their office hours have explained things to me quite differently, in less technical terms, than other males in the group.”

- “There seems to be no individualized support for students of color, first-gen students, and students who are completely new to CS. “

- “Not everyone has the resources to teach themselves content they should be being taught by the professors paid to teach them. And weed-out classes have always been a tool of exclusion for communities of color and students with disabilities. If it weren’t for the communities that I found (which I mentioned in the previous response), I wouldn’t have continued in the CS department”
Survey: Imposter Syndrome

There is too much pressure in the CS major regarding GPA
54 responses

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<td>21 (38.9%)</td>
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<td>12 (22.2%)</td>
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<td>11 (20.4%)</td>
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There is too much pressure in the CS major regarding internships
53 responses

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<td>11 (20.8%)</td>
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<td>5</td>
<td>39 (73.6%)</td>
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Live Questions
tinyurl.com/cs-townhall-2021
Survey: Imposter Syndrome

There is too much pressure in the CS major regarding research
52 responses

1. 9 (17.3%)
2. 15 (28.8%)
3. 20 (38.5%)
4. 5 (9.6%)
5. 3 (5.8%)

I feel comfortable asking my peers for help
54 responses

1. 2 (3.7%)
2. 8 (14.8%)
3. 9 (16.7%)
4. 21 (38.9%)
5. 14 (25.9%)

Live Questions
tinyurl.com/cs-townhall-2021
Survey: Imposter Syndrome

I feel comfortable asking my professors and TAs for help

54 responses

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Live Questions
tinyurl.com/cs-townhall-2021
Survey: Student comments on Imposter Syndrome

- “I feel really **inadequate** when other students are getting **internships** and I'm still recruiting”
- “I like programming, but not to the point where I devote all my time to it or even do it outside of schoolwork/one or two clubs ... I **sometimes feel inadequate** because I don't devote my life to it like other students do.”
- “I frequently feel that professors don't care about us. Often I feel they are trying to trick us and hurt our grades. That is due to **UCLA culture, it doesn't care about us, it cares about our GPA.**”

Live Questions
tinyurl.com/cs-townhall-2021
Survey: Student comments on Imposter Syndrome

- “The professors who insist on a learn-by-doing “teaching” style have always made me feel incredibly inadequate. Yes, in industry we will need to learn things by looking them up and just practicing them. But when we’re learning fundamental core concepts and methods in an undergraduate CS classroom, we need to be TAUGHT what we’re doing first, so that we can later teach ourselves as we build off of that foundation. Not everyone has the same resources, and the only place in which UCLA CS students are (for the most part) equal is in that they have access to lecture and to a professor who is meant to teach them.”
Survey: Diversity and Inclusion in the CS Department

The CS Department understands the impact of their words and actions
54 responses

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The CS Department is actively listening to student input about diversity and inclusion
53 responses

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<td>13 (24.5%)</td>
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<td>5 (9.4%)</td>
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Survey: Diversity and Inclusion in the CS Department

The curriculum and course structure of UCLA CS are friendly to everyone, regardless of access to resources or disability

45 responses
Survey: Student comments on Diversity and Inclusion in the CS Department

- "Professors could be more open to listening to student concerns outside of class. I don't think students will be comfortable until faculty explicitly set time aside to listen to students."

- "At a department level, we need low-friction mechanisms to provide feedback. Student liaisons and involving student organizations is one way; another is having more events like town halls and fireside chats where students interact with department more frequently, making them more approachable."

- "Student input and accountability around it. Currently, the average CS student has no idea who the diversity dean is or what they do. They don't know about standing committees, or liaison panels, or who in the student body they can raise concerns about diversity and inclusion to. Students do not know about the new mentor professor program ... we need much more communication around what the department does, what statistics and feedback that it does receive, and what it does around them."

Live Questions
tinyurl.com/cs-townhall-2021
Guiding Questions

- What actions or initiatives have been or are currently being taken on a departmental level to address diversity, equity, and inclusion in computer science? What is the impact of these initiatives?

- How have you personally taken action to learn about diversity and equity issues and ensure inclusion in your classrooms?

  - Some diversity/equity issues include:
    - Accessibility
    - Implicit bias
    - Mental health
    - Representation of racial/gender/sexual minorities
Diversity and Inclusion: Slido Q&A
5-Minute Break
Up Next: Academic Curriculum
Academic Curriculum
Current Curriculum
Lower Division Curriculum

Changes in recent years

- Updating CS 35L with CS 97 material
- Addition of CS 30
- Only 1 Physics lab: 4AL or 4BL
- Learning Assistants

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<td>Math 32A</td>
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<td>Math 32B</td>
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<td>Math 33A</td>
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<td>Math 33B</td>
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<td>Math 61</td>
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<td>Physics 1A</td>
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<td>Physics 1B</td>
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<td>Physics 1C</td>
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<td>Physics 4AL or Physics 4BL</td>
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<td>ENGR 96C</td>
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<td>EC ENGR 1 or COM SCI 1</td>
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<td>EC ENGR 3</td>
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<td>COM SCI 31</td>
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<td>COM SCI 32</td>
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<td>COM SCI 33</td>
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<td>COM SCI 35L</td>
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<td>COM SCI M51A or EC ENGR M16</td>
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*CE only

Live Questions
tinyurl.com/cs-townhall-2021
# Upper Division Curriculum

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<th>Computer Engineering</th>
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<td><strong>CS 111</strong></td>
<td><strong>COM SCI 111</strong></td>
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<td>CS 118</td>
<td>CS 118</td>
<td><strong>COM SCI 118 or EC ENGR 132B</strong></td>
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<tr>
<td>CS 131</td>
<td>CS 131</td>
<td><strong>COM SCI 151B or EC ENGR 131A</strong></td>
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<td>CS M151B or ECE M116C</td>
<td>CS M151B or ECE M116C</td>
<td><strong>COM SCI M151B or EC ENGR M116C</strong></td>
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<td>CS M152A or ECE M116L</td>
<td>CS M152A or ECE M116L</td>
<td><strong>COM SCI M152A or EC ENGR M116L</strong></td>
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<td><strong>CS 180</strong></td>
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<td>CS 181</td>
<td><strong>EC ENGR 100</strong></td>
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<td><strong>Capstone: 152B</strong></td>
<td><strong>EC ENGR 102</strong></td>
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<td><strong>Stats 100A, CEE 110, ECE 131A, Math 170A, or Math 170E</strong></td>
<td><strong>EC ENGR 113</strong></td>
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<td>ECE 100</td>
<td><strong>EC ENGR 115C</strong></td>
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<td>ECE 102</td>
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<td>ECE 115C</td>
<td><strong>EC ENGR Capstone Course DA</strong></td>
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<td>ECE Upper Div Elective #1 (ECE 101-187)</td>
<td><strong>EC ENGR Capstone Course DB</strong></td>
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<td><strong>EC ENGR Elective #1 (Upper Div EC ENGR Course, 100-187)</strong></td>
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| Sci-Tech #1      | Sci-Tech #2                      | Sci-Tech #3            |

[Live Questions](tinyurl.com/cs-townhall-2021)
Upper Division Curriculum

Changes in recent years

- Added Digital Humanities as a Tech Breadth area
- Removed restrictions on CS electives (CS 112 and CS 170A)
- Updated requirements for CSE to replace EE 10/110/11L with EE 100 and EE 115C.
- Added new offerings of CS 188 (e.g. Scalable Internet Services, HCI, Distributed Systems, Computer Vision, Distributed Algorithms, Blockchain)
  - To address student concern for more industry-track courses and group project-based courses

Live Questions
tinyurl.com/cs-townhall-2021
Survey Responses

Major
85 responses

Graduation Year
85 responses

Path to UCLA
84 responses

90+ responses
Survey: Courses students enjoyed

The most enjoyable classes according to students:
CS 31, CS 32, CS 33, CS M51A, CS 180, CS 161
What made these courses enjoyable?

The subjects were interesting and relevant to work opportunities and job interviews. The projects were more interesting than other courses.

Engaging and fun professors, clearly organized and structured curriculum, well-prepared and engaging TA's.

I've liked the conceptual material of most classes at UCLA; what stresses me out about most classes (and what didn't stress me out about these) is that the workload seemed reasonable for what was taught in class, and I didn't feel like my grade was going to get determined in a way I did not have control over - as long as I put in the work, it would show in my final result.

Unique projects, extensive applicability.
Survey: Courses students wish to see change in?

Top courses that students want to see changes in:

CS 111, CS 152A, CS 131, CS 1
What changes would you make to these courses?

CS M152A: This is a radical comment but I feel like the hardware requirement isn’t really applicable for CS majors especially – if we could replace this requirement with an elective that’s a little more applicable (e.g. CS 143) and instead make this an elective, that’d be really helpful for CS majors in the long run (I haven’t met another CS major who works with Verilog in industry).

I would like to have 152A removed as a requirement.

CS M152A
- Issues of relevance to CS
- Support for replacing it with a more applicable requirement like a current elective (e.g. CS 143)

CS 111 and 131
- Heavy workload
- Projects incorporating more lecture material
- Checkpoints, grading scripts

CS 111 and 131: include more lecture material that relates to each project, especially for the second half of the courses. Every project felt disconnected from lectures and thus was hard to get started.

CS 111, 131: Introducing more checkpoints for projects, grading scripts

CS35L/97/111/131 - these classes all have a) extremely rigorous homework that is b) largely disconnected to the source material of the class. I think the combination of both of those is extremely unmotivating for students, and probably encourages a lot of cheating. I would love to see assessments that are closer to what we see in CS 33 with Reinman: interactive, learn-by-exploring assessments or projects that are more closely tied to course curriculum. I think CS97 was a step in the right direction, but not enough.

CS 111 is effectively the content of a semester long course being crammed into a quarter. 111 either should be split up into 2 courses, offered over 2 quarters. Or 111 should be increased to 7-8 units to reflect the workload taken in one quarter.

Live Questions
tinyurl.com/cs-townhall-2021
Future CS course offerings students want to see

- CS Ethics, Social Impact, Public Policy
- Quantum computing / complexity theory
- Mobile / web development
- User interface / User experience (UI/UX)
- Cryptography and cybersecurity

Mobile development, virtual/augmented reality, any class relating CS and film (I've heard of ML applications with animation and I'm not sure if that's covered)

Distributed Systems, Natural Language Processing, Data Engineering

VR/AR, More theoretical courses like Cryptography and Complexity Theory at an undergraduate level

Live Questions
tinyurl.com/cs-townhall-2021
Survey: Ease of fulfilling requirements

How easy is it to navigate / figure out which courses are mandatory to fulfill requirements?
81 responses

If you sought help from the HSSEAS academic office or counselors, how helpful was the support?
63 responses

Live Questions
tinyurl.com/cs-townhall-2021
## Survey: How does UCLA Computer Science compare with the curriculum offered at peer institutions?

*Curriculum offered by other universities:*

### Stanford
- Students can choose tracks, such as AI, HCI, Graphics, Theory, etc.
- CS 106S: Coding for Social Good
- A wider range of courses in modern deep learning

### UC Berkeley
- Student-led classes via the DeCal program
- A wider variety of tech electives courses, from psychology to music to anthropology

### UC San Diego
- Music 177 (essentially a C++ + EE hybrid course)
- Many courses on computer graphics and computer vision

---

**Live Questions**
tinyurl.com/cs-townhall-2021
Survey: How can UCLA CS further improve the curriculum?

More lecturers/Industry professor

Recording lectures! The best thing to come out of remote learning is being able to rewatch lectures or simply view them at our own speed.

More tech breadth choices; Less physics; More study abroad opportunities

grading scripts for projects so you know you're on the right track, recording lectures, assignments are relevant to the lectures, more encouragement of collaboration

- Student involvement in curriculum development, mid-quarter feedback to professors
- Expanding USIE to something more like Berkeley's DeCal (student-led courses)
- Revisit requirements: physics, CS M152A

Live Questions
tinyurl.com/cs-townhall-2021
Survey: Research

Opportunities
- Cold-emailing professors
- Social media
- Contacting professors after taking their classes

Roadblocks
- “I’m not sure if I know enough to do research and I do not how to approach professors and get started”
- “Finding opportunities, having the requested experience. Hard to get into a position without prior experience”
- “I’ve cold emailed many professors, but it seems like im either underqualified or they don’t want undergraduates”

Live Questions
tinyurl.com/cs-townhall-2021
Guiding Questions

- Are there any talks about changing the ratio of required courses to electives? Many students have expressed interest in taking more elective courses to cater to their interests.

- Many other universities offer student-led courses for credit, such as UC Berkeley's DeCal program, which offers 1-2 unit classes that cover more modern topics, allowing for students to explore these interests. Is the CS Department open to running a similar program?
Academic Curriculum: Slido Q&A
Academic Honesty
Survey Overview: Strengths
70+ responses

How much do you think your professors have prioritized your learning and understanding of the material?
67 responses

How much do you respect your CS professors?
69 responses

1: Not Respected
5: Extremely Respected

Live Questions
tinyurl.com/cs-townhall-2021
Survey Overview: Weaknesses

How much do you think your professors have respected your time?
68 responses

How much do you think your professors have considered your mental well-being?
67 responses

1: Not Respected
5: Extremely Respected

Live Questions
tinyurl.com/cs-townhall-2021
What is the first course students cheat in?

60+ responses

Live Questions
tinyurl.com/cs-townhall-2021
Do students feel emboldened to continue cheating after cheating in one class?

- Yes: 53.2%
- No: 27.7%

40+ responses
What do you think prompts cheating?

- Course material doesn't prepare students for tested material well: 21 (33.9%)
- Virtual environment hinders student learning and focus: 21 (33.9%)
- Students cannot find proper exam environment while testing virtually: 37 (59.7%)
- Know that peers are cheating: 43 (69.4%)

Live Questions
tinyurl.com/cs-townhall-2021
Acceptable Resources (Outside of Class)

- UPE Tutoring
  - Weekdays 9am-5pm
  - Review Sessions
  - Project Hack Workshops
- Office hours
- Piazza
- Peer collaboration (when allowed)
Not Enough Resources

- Students often have conflicts with professor and TA office hours, leaving them with nowhere else to turn to for guidance
  - Some cite that referencing GitHub code actually helps them learn better

- Vague project specs can leave students with no idea of where to start
  - Especially if the project is unrelated to the material currently taught in class
  - Students say that example code and project skeletons are incredibly helpful

Live Questions
tinyurl.com/cs-townhall-2021
Do students believe that projects should be allowed to be uploaded on GitHub?

- 61.9% Yes
- 22.2% No

Other responses:
- I think they should be allowed to be uploaded on GitHub
- Depends on the nature of assignment
- No but I think TA's should release solutions
- Yes and No... Learning is the end goal
- if they aren't allowed, then people will just...
- Yes but on private repos
Posting Projects on GitHub

- Some course syllabi now state students may **not post** projects on GitHub
  - GitHub is an industry standard for job recruitment
  - Removing course content poses **limitations on employment prospects**
  - GitHub is useful as a means of backing up and keeping track of code progress
  - GitHub is used primarily by students as a **reference when stuck**, instead of copy-paste
Guiding Questions

1. Why do professors believe that students cheat?

2. A common gripe is that a lot of homework and projects are graded too strictly and harshly, which leads students to rely on cheating. To what extent can we incentivize learning over getting good grades to potentially decrease the likelihood of cheating?
   a. Potential sols: hwk graded on completion, release sanity checks for projects, etc.
Academic Honesty: Slido Q&A
Thank you / Group Photo