

Syllabus

MWF 1:30PM-2:55PM, Jack Baskin Auditorium 101

Ethan Sifferman

Summer, 2024

Course Information

Canvas: <https://canvas.ucsc.edu/courses/74077> (<https://canvas.ucsc.edu/courses/72707>)

Piazza: <https://piazza.com/ucsc/summer2024/cse100!> [↗](https://piazza.com/ucsc/summer2024/cse100!) (<https://piazza.com/ucsc/summer2024/cse100!>)

Gradescope: <https://www.gradescope.com/courses/801660> [↗](https://www.gradescope.com/courses/801660) (<https://www.gradescope.com/courses/801660>)

(Optional Textbook: Harris, David, and Harris, Sarah. *Digital Design and Computer Architecture Second Edition*. ISBN-10: 9382291520)

Communication

All class communication should be through Piazza. Please do not email any of the instructors directly unless you are unable to access Piazza.

Labs

Labs are twice per week for 1 hour 50 minutes. Labs will be TA-led. No attendance is taken, but you will not be let into a full lab if it is not your section.

- TuTh 9am–10:50am Baskin Engineering 104
- TuTh 11am–12:50pm Baskin Engineering 104
- TuTh 1pm–2:50pm Baskin Engineering 104
- TuTh 3pm–4:50pm Baskin Engineering 104

Assignments

- **20% Homeworks:** Solutions will be posted, so late homeworks will not be accepted.
- **10% Midterm: July 26th** (Midterm is in-person and cannot be rescheduled).
- **20% Final:** Friday August 16 from 12:00-3:00pm.
(Final is in-person and cannot be rescheduled.)

You must earn a passing grade on the Final to pass the course.

I cannot move the final nor give earlier/later exams.

- **50% Labs:** The lab is an integral part of this course.
You must successfully complete all lab demos (pass all demos) to pass this course.
 - The labs are not weighted equally.
 - Labs 1, 2 are worth 10 points each.
 - Labs 3, 4, are worth 15 points each.
 - Lab 5 is worth 20 points.

Late lab submissions will be penalized 20% for each day they are late (counting a partial day as a whole). Weekends and holidays do not count as penalties.

- If you demo with code you submitted to Gradescope on-time, you will not be penalized.
After 4 days they will not be accepted and you will receive a 0 for that lab.
It is not possible to pass this course with a 0 on any lab demo.

Student Hours

UC Senate Regulation 760 specifies that one academic credit corresponds to a total of 30 hours of work for the median student over a quarter. A 7-unit course should therefore take 26.25 hours of your time each week.

Schedule

- Week 1: Gates (Lab1 Due Jun 27th)
- Week 2: Muxes (Lecture Cancelled+Quiz Jul 5th)
- Week 3: Flip-flops (Hw1 Due Jul 8th, Lab2 Due Jul 9th)
- Week 4: Flip-flops cont. (Hw2 Due Jul 15th, Lab3 Due Jul 18th, Lecture Cancelled+Quiz Jul 19th)
- Week 5: State machines (Hw3 Due Jul 24th, Midterm Jul 26th)
- Week 6: Verilog (Lab4 Due Aug 1st)
- Week 7: State machines (Hw4 Due Aug 5th)
- Week 8: Review (Lab5 Due Aug 13th, Hw5 Due Aug 12th, Final Aug 16th)

ACCESSIBILITY

UC Santa Cruz is committed to creating an academic environment that supports its diverse student body. If you are a student with a disability who requires accommodations to achieve equal access in this course, please affiliate with the DRC. I encourage all students to benefit from learning more about DRC services to contact DRC by phone at 831-459-2089 or by email at drc@ucsc.edu. For students already affiliated, make sure that you have requested Academic Access Letters, where you intend to use accommodations. You can also request to meet privately with me during my office hours or by appointment, as soon as possible. I would like us to discuss how we can implement your accommodations in this course to ensure your access and full engagement in this course.

TITLE IX/CARE ADVISORY

UC Santa Cruz is committed to providing a safe learning environment that is free of all forms of gender discrimination and sexual harassment, which are explicitly prohibited under Title IX. If you have experienced any form of sexual harassment, sexual assault, domestic violence, dating violence, or stalking, know that you are not alone. The Title IX Office, the Campus Advocacy, Resources & Education (CARE) office, and Counseling & Psychological Services (CAPS) are all resources that you can rely on for support.

Please be aware that if you tell me about a situation involving Title IX misconduct, I am required to share this information with the Title IX Coordinator. This reporting responsibility also applies to course TAs and tutors (as well to all UCSC employees who are not designated as “confidential” employees, which is a special designation granted to counselors and CARE advocates). Although I have to make that notification, you will control how your case will be handled, including whether or not you wish to pursue a formal complaint. The goal is to make sure that you are aware of the range of options available to you and that you have access to the resources you need.

Confidential resources are available through [CARE \(https://care.ucsc.edu/\)](https://care.ucsc.edu/). Confidentiality means CARE advocates will not share any information with Title IX, the police, parents, or anyone else without explicit permission. CARE advocates are trained to support you in understanding your rights and options, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more. You can contact CARE at (831) 502-2273 or care@ucsc.edu.

In addition to CARE, these resources are available to you:

- If you need help figuring out what resources you or someone else might need, visit the [Sexual Violence Prevention & Response \(SAFE\) website \(http://safe.ucsc.edu/\)](http://safe.ucsc.edu/), which provides information and resources for different situations.
- [Counseling & Psychological Services \(CAPS\) \(https://caps.ucsc.edu/\)](https://caps.ucsc.edu/) can provide confidential counseling support. Call them at (831) 459-2628.
- You can report gender discrimination and sexual harassment and violence directly to the University's [Title IX Office \(https://titleix.ucsc.edu/\)](https://titleix.ucsc.edu/), by calling (831) 459-2462 or by using their [online reporting tool \(https://titleix.ucsc.edu/about/staff-contact-us.html\)](https://titleix.ucsc.edu/about/staff-contact-us.html).
- Reports to law enforcement can be made to the UC Police Department, (831) 459-2231 ext. 1.
- For emergencies, call 911.

ACADEMIC INTEGRITY

All members of the UCSC community benefit from an environment of trust, honesty, fairness, respect, and responsibility. You are expected to present your own work and acknowledge the work of others in order to preserve the integrity of scholarship.

Academic integrity includes:

- Following exam rules
- Using only permitted materials during an exam
- Viewing exam materials only when permitted by your instructor
- Keeping what you know about an exam to yourself
- Incorporating proper citation of all sources of information
- Submitting your own original work

Academic misconduct includes, but is not limited to, the following:

- Disclosing exam content during or after you have taken an exam
- Accessing exam materials without permission
- Copying/purchasing any material from another student, or from another source, that is submitted for grading as your own
- Plagiarism, including use of Internet material without proper citation
- Submitting work that was produced by artificial intelligence (e.g., ChatGPT)
- Using cell phones or other electronics to obtain outside information during an exam without explicit permission from the instructor
- Submitting your own work in one class that was completed for another class (self-plagiarism) without prior permission from the instructor.
- Violations of the Academic Integrity policy can result in dismissal from the university and a permanent notation on a student's transcript.

For the full policy and disciplinary procedures on academic dishonesty, students and instructors should refer to the [Academic Misconduct page \(https://ue.ucsc.edu/academic_misconduct\)](https://ue.ucsc.edu/academic_misconduct) at the [Division of Undergraduate Education \(https://ue.ucsc.edu/\)](https://ue.ucsc.edu/).

GENERATIVE ARTIFICIAL INTELLIGENCE

Within this class, you are welcome to use foundation models (ChatGPT, GPT, DALL-E, Stable Diffusion, Midjourney, GitHub Copilot, and anything after) in a totally unrestricted fashion, for any purpose, at no penalty. However, you should note that all large language models still have a tendency to make up incorrect facts and fake citations, code generation models have a tendency to produce inaccurate outputs, and image generation models can occasionally come up with highly offensive products. You will be responsible for any inaccurate, biased, offensive, or otherwise unethical content you submit regardless of whether it originally comes from you or a foundation model. If you use a foundation model, its contribution must be acknowledged in your submission; you will be penalized for using a foundation model without acknowledgement. Having said all these disclaimers, the use of foundation models is encouraged, as it may make it possible for you to submit assignments with higher quality, in less time.

The university's policy on plagiarism still applies to any uncited or improperly cited use of work by other human beings, or submission of work by other human beings as your own.

INTELLECTUAL PROPERTY

The materials in this course are the intellectual property of their creators. As a student, you have access to many of the materials in the course for the purpose of learning, engaging with your peers in the course, completing assignments, and so on. You have a moral and legal obligation to respect the rights of others by only using course materials for purposes associated with the course. For instance, you are not permitted to share, upload, stream, sell, republish, share the login information for, or otherwise disseminate any of the course materials, such as: video and audio files, assignment prompts, slides, notes, syllabus, simulations, datasets, discussion threads. Conversely, any materials created solely by you (for example, your videos, essays, images, audio files, annotations, notes) are your intellectual property and you may use them as you wish.

RELIGIOUS ACCOMMODATION

UC Santa Cruz welcomes diversity of religious beliefs and practices, recognizing the contributions differing experiences and viewpoints can bring to the community. There may be times when an academic requirement conflicts with religious observances and practices. If that happens, students may request reasonable accommodation for religious practices. The instructor will review the situation in an effort to provide a reasonable accommodation without penalty. You should first discuss the conflict and your requested accommodation with your instructor early in the term. You or your instructor may also seek assistance from the [Dean of Students office \(https://](https://)

deanofstudents.ucsc.edu/).

ALL-GENDER RESTROOMS

UC Santa Cruz is committed to the well-being of all students and cares about all students feeling safe and welcome, regardless of their gender identity, expression, and/or embodiment. The [Lionel Cantú Queer Center \(https://queer.ucsc.edu/index.html\)](https://queer.ucsc.edu/index.html) has worked with students and campus staff to create more safe and accessible restrooms for transgender and genderqueer students, staff, faculty, alumni, and UCSC visitors. A [complete list of all-gender restrooms \(https://genderinclusive.ucsc.edu/inclusive%20facilities/images/gif-list-5-17-17.pdf\)](https://genderinclusive.ucsc.edu/inclusive%20facilities/images/gif-list-5-17-17.pdf) on campus was compiled and is maintained by the Cantú Queer Center.

REPORT AN INCIDENT OF HATE OR BIAS

The University of California, Santa Cruz is committed to maintaining an objective, civil, diverse and supportive community, free of coercion, bias, hate, intimidation, dehumanization or exploitation. The Hate/Bias Response Team is a group of administrators who support and guide students seeking assistance in determining how to handle a bias incident involving another student, a staff member, or a faculty member. To report an incident of hate or bias, please use the following form: [Hate/Bias Report Form](https://ucsc-advocate.symplicity.com/care_report/index.php/pid596509?) [↗ \(https://ucsc-advocate.symplicity.com/care_report/index.php/pid596509?\)](https://ucsc-advocate.symplicity.com/care_report/index.php/pid596509?).

STUDENT SERVICES

[Counseling and Psychological Services \(https://caps.ucsc.edu/\)](https://caps.ucsc.edu/)

Many students at UC Santa Cruz face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional wellbeing. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings.

[Campus Mobile Crisis Team \(https://caps.ucsc.edu/mobile-team/index.html\)](https://caps.ucsc.edu/mobile-team/index.html)

If you are concerned about yourself or someone around you and feel they may be having a behavioral health crisis, do not hesitate to call our team. Behavioral Health concerns can include mental health or substance use related situations where you or someone around you may be a danger to self or others. Dial [831-502-9988 \(https://caps.ucsc.edu/mobile-team/831-502-9988\)](https://caps.ucsc.edu/mobile-team/831-502-9988) to reach the team.

[Reporting and Support Services \(https://ucsc.edu/resources\)](https://ucsc.edu/resources)

A resource to help students, faculty, staff and others report acts of bias as well as discrimination and harassment.

[Student Success and Engagement Hub \(https://studentsuccess.ucsc.edu/\)](https://studentsuccess.ucsc.edu/)

The Division of Student Success provides campus-wide coordination and leadership for student success programs and activities across departments, divisions, the colleges, and administrative units.

[Tutoring and Learning Support \(https://lss.ucsc.edu/\)](https://lss.ucsc.edu/)

At Learning Support Services (LSS), undergraduate students build a strong foundation for success and cultivate a sense of belonging in our Community of Learners. LSS partners with faculty and staff to advance educational equity by designing inclusive learning environments in Modified Supplemental Instruction, Small Group Tutoring, and Writing Support. When students fully engage in our programs, they gain transformative experiences that empower them at the university and beyond.

[Slug Support Program \(https://deanofstudents.ucsc.edu/slug-support/program/index.html\)](https://deanofstudents.ucsc.edu/slug-support/program/index.html)

College can be a challenging time for students and during times of stress it is not always easy to find the help you need. Slug Support can give help with everything from basic needs (housing, food, or financial insecurity) to getting the technology you need during remote instruction.

To get started with SLUG Support, please contact the [Dean of Students \(https://deanofstudents.ucsc.edu/about/index-aboutdos.html\)](https://deanofstudents.ucsc.edu/about/index-aboutdos.html) Office at 831-459-4446 or you may send us an email at [deanofstudents@ucsc.edu \(mailto:deanofstudents@ucsc.edu\)](mailto:deanofstudents@ucsc.edu).

[Slug Help/Technology_\(https://its.ucsc.edu/index.html\)](https://its.ucsc.edu/index.html)

The ITS Support Center is your single point of contact for all issues, problems or questions related to technology services and computing at UC Santa Cruz. To get technological help, simply email help@ucsc.edu.

[On-Campus Emergency Contacts \(https://www.ucsc.edu/help/\)](https://www.ucsc.edu/help/)

For all other help and support, including the health center and emergency services, Click here to go to UCSC's [Emergency Services \(https://www.ucsc.edu/help/\)](https://www.ucsc.edu/help/) page. **Always dial 9-1-1 in the case of an emergency.**