

# **CSE 141L: Introduction to Computer Architecture Lab**

## **Early Design Experience**

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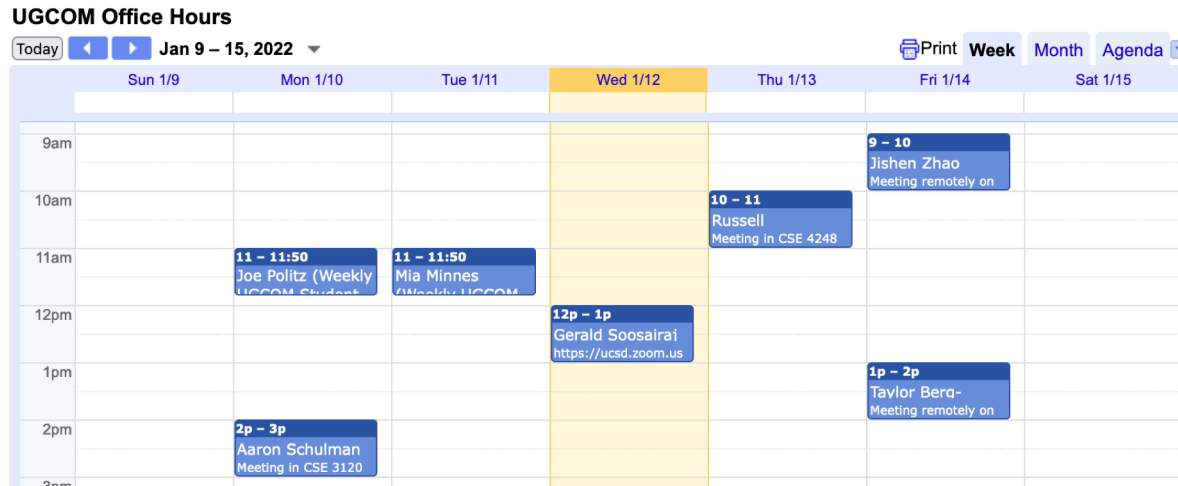
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# Logistics Update: Waitlists

- There are still ~50 people on the waitlist
  - Cannot / will not make exceptions for individuals: no way to do fairly
  - All in == Another full TA [20 hours / week staff time] — not up to me
  - Not fair to course staff or current students to dilute support hours that much
- If you are on the waitlist for 141 at all, then please make room in 141L
- 141 will be offered next quarter
  - (I'm teaching it)
- 141L will be offered next quarter
  - (worst case: I'll teach it)

# Quick Plug: Please do fill out the survey announced on canvas

- UGComm is full of people who are particularly motivated right now
- One concrete thing they are working on this quarter “the 141L problem”
- Also check out their office hours!
  - [cse.ucsd.edu/undergraduate/advising/undergraduate-committee-ugcom-advising-and-mentorship](https://cse.ucsd.edu/undergraduate/advising/undergraduate-committee-ugcom-advising-and-mentorship)



# Some other logistics and advertisements

- Pat's OH
  - For 141L: Wednesday, 3-4pm
    - <https://ucsd.zoom.us/j/94468743855>
    - Eventually CSE 3202 [office] also an option
    - Or via appointment
  - For DEI Committee: Monday, 3-4pm [NEW!]
    - <https://ucsd.zoom.us/j/99921220769>
    - Eventually CSE 3202 [office] also an option
- Other DElcomm members' hours:
  - Prof. Christine Alvarado: Tue 1-2pm
  - Prof. George Porter: Tue 2-3pm

## Milestone 1 is due in 14 days

- Okay, so this class is a lot, and I'm not really sure what I'm supposed to be doing, and if I'm honest I haven't really started, and now I feel more lost and overwhelmed and I don't know what to do
- That's okay. Take a breath. Start today.
  - Go. To. Office. Hours.
  - The TAs have 8 Office Hours a week. Each.
  - *Strongly encouraged* to find a group today



## But seriously, where do I start??

- A major goal of this course is for you to gain experience managing a large-scale, long-term project
  - Eventually in life, you just get the spec, the deadline, and it's (literally) *your* job to craft the milestones
  - AND to assert whether the deadline is reasonable!
    - Sometimes, you are asked to set your own deadline out of thin air: harder in a way

# Start with pencil, paper, and a willingness to throw stuff away

- Need to reason through things yourself to understand how they work
- It's impossible to design perfectly on the first try
  - "...back to the drawing board"
  - Need time for multiple attempts
- The hardest part is knowing *what* to implement
  - Very little of software or hardware engineering jobs is writing code!

## Milestone 1 is all pen & paper

- Nothing has to work!
- No processor that exists that could execute your program anyway
- The purpose of Milestone 1 is to force you to think through your design before implementing anything



# Today's Objectives:

## How to start ISA design; how to understand the programs

- Very interactive today
  - I have a few things I'll prompt to start with
  - If you stop asking questions, I'll end class early
  
- [Remaining slides intentionally blank — paper!]

















