

CS 59867 - Senior Design II
City College Fall 2022

Professor
Madeline Blount

M 6:30-9:00PM
IN-PERSON
NAC 4/157

*image from [DALL-E](#),
"teddy bears mixing chemicals as mad scientists in a steampunk style"*



welcome back!

... and now,

WE BUILD.

*image from [DALL-E](#),
"teddy bears mixing chemicals as mad scientists in a steampunk style"*



plan for today:

- check-in
- what is this class?
- go thru syllabus
- start community code

image from [DALL-E](#),
"teddy bears mixing chemicals as mad scientists in a steampunk style"



syllabus: <https://github.com/mab253/designII-fall2022>

What will we learn in this class?

- How to think critically about technology as we build it
- How to take a project from proposal phase to prototypes
- How to integrate user testing and feedback into iterative build process
- How to give and receive constructive criticism
- How to debug, problem solve, and get “unstuck” as programmers
- How to present work, to fellow engineers and others
- How to create a community for building, critiquing, and supporting each other’s work

How will we do this?

... we will make our very own studio & hackerspace



What does this mean?

- different, more open class structure
- we learn from each other as we work on different things
- we define a group “community code”



Each 2.5 hr class time on Monday:

- Check-in 20 min.
 - Also "sync," "stand-up," "scrum" ...
 - Assign roles (notetaker, timekeeper)
- Workshop Presentation 60 min.
 - Sometimes 2 projects will share
 - Sometimes professor workshop/lecture
-  Open Studio Time 60 min.
 - Unstructured work - collaboration encouraged!
 - Sometimes pair programming assigned
 - 1:1 with me, can be scheduled
- Wrap-Up 10 min.
 - Report back on the session
 - Announcements, logistics

Methodology/Pedagogy: Why studio?

- What do we think of when we hear the word "studio"?









Methodology/Pedagogy: Why studio?

Eric Paulos,

roboticist/artist and founder of Hybrid Ecologies Lab (UC Berkeley) :

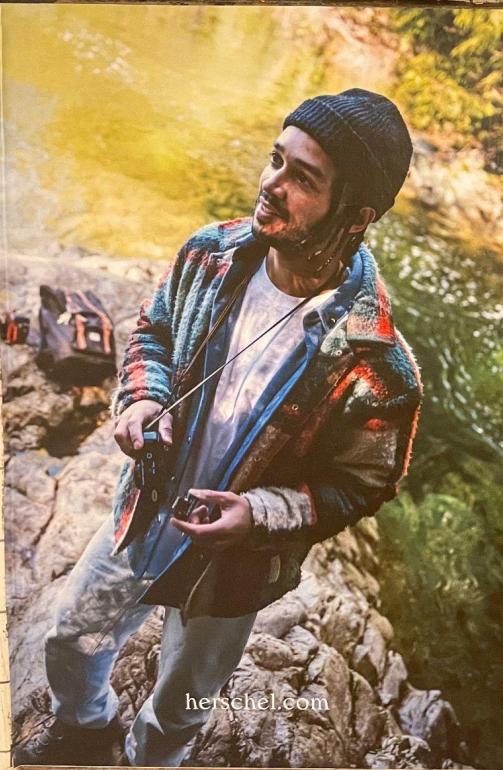
- “The design critique holds more than instructional utility. It is also one of the primary sites in design for the production of new knowledge and value ... The critique is a ... contested and pluralistic space where ideas are continually challenged, where new approaches are tested, and ideas are advocated for.”
- “It is remarkable to see your studio project at the center of this process - remarkable, and sometimes jarring. It may be counterintuitive that, even as your project may be the subject, what is happening in that moment is not always or entirely about your project.”

From "What is an Architecture Crit?" (Portico)

The term 'critique' originally referred to a piece of writing that criticised - i.e. provided a considered opinion or judgement on - a literary or artistic work. In this vein, any judgement you make about a [design] work - good or bad - can be considered as a criticism. It's not just about expressing disapproval, but about offering an opinion, alternatives, or seeing things in a different light.

It's also important to remember that a critique isn't personal. It's not an evaluation of your worth as a human being. It is only a criticism of the work you have presented.

005



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Nathaniel Kaur & Marci | Greenbaum Photography

ruthless
Make some critics
ism
of everything
that exists
—Marx

Put Yourself
Out There



hersche

-005



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	maxProfit	0	0	4	4	

VR

$\text{minPrice} = \min(\text{minPrice}, \text{price}[i])$

$\text{currentProfit} = \text{price}[i] - \text{minPrice}$

$\text{maxProfit} = \max(\text{maxProfit}, \text{currentProfit})$



What are workshop presentations?

- 30 min. time - you run class!
- This is your “crit” time, AND/OR something you want to teach
- Ideas:
 - Ask us a big question about a decision in your project
 - Talk us through a debugging story
 - Show us a version of a prototype to test
 - Show us somewhere you are stuck
 - Teach us a tutorial of something new you learned
 - Show us your program’s logic or database or visual design
- More detail next class
- Potential topics for me: very practical issues [Python, API calls, branching and version control, data types, staging environments, etc.] or maker themes [what does it mean to be a programmer, today? What is going on with recent developments in AI? What about environmental impact?] or job stuff [any questions about next year?]

Methodology/Pedagogy: Why hackerspace?



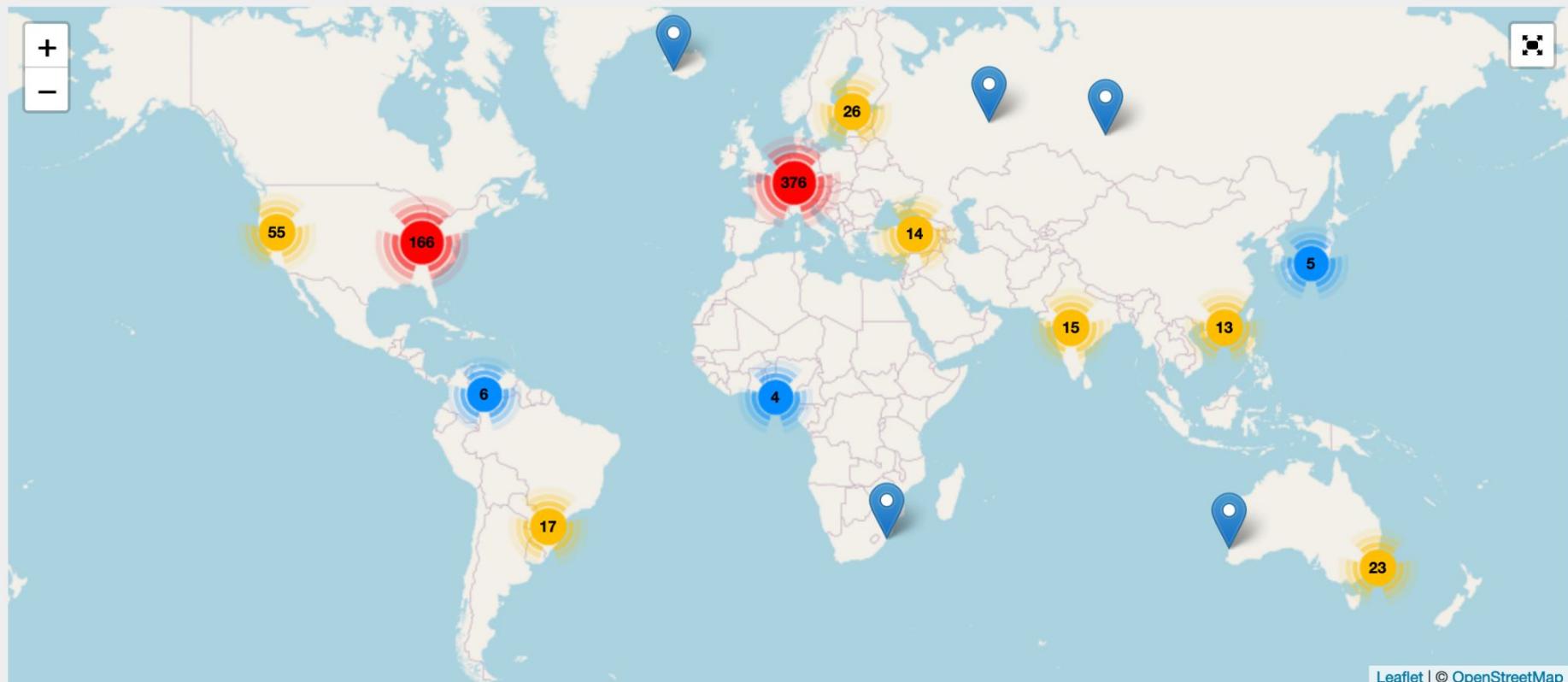
Methodology/Pedagogy: Why hackerspace?

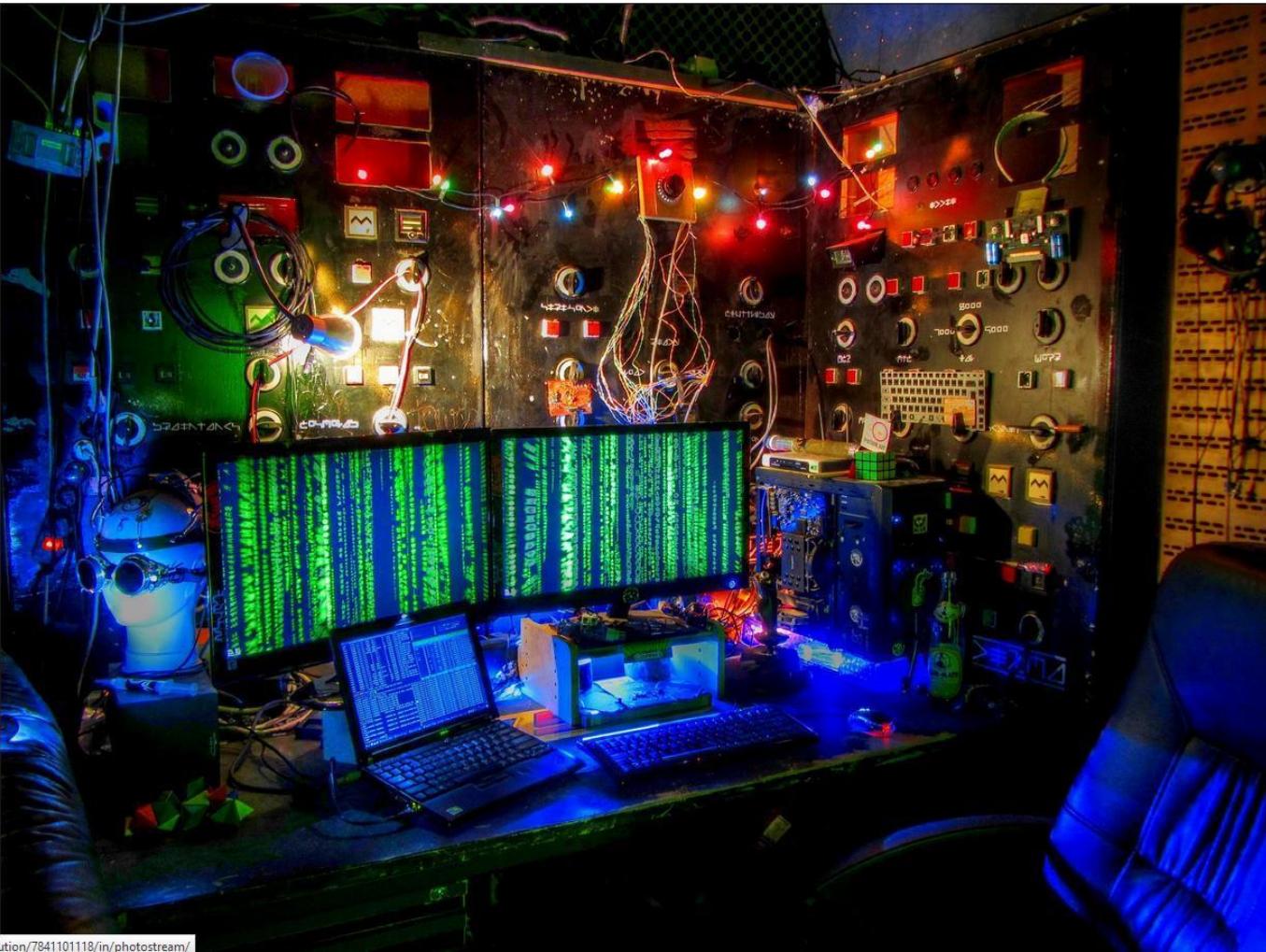
- Partially because ... we have space!
- Spaces to learn informally, next to each other
- People bring their own work and their own workshops
- Responds to the needs and interest of the group
- Self-organized, a lot of meetings
- Recent history of technology, a movement

This is a comprehensive, user-maintained list of all active hackerspaces throughout the world.

There are currently 2456 hackerspaces listed in this wiki, 844 of them are marked as active and 359 as planned. We have also a [list of planned Hacker Spaces](#), as well as a [map](#) including those still in building process - or already closed. Realtime data of some active hackerspaces is available at the [Space API](#) project.

This page is cached due to its long rendering time. If you want to flush the cache, [Click Here](#) 





Attendance/Open Studio Time

- Attendance for this kind of class *really* important - we actively show up for our classmates as much as ourselves
- **Open Studio Time, while generally unstructured, is not optional.** There is a kind of magic that can happen when you are working on individual projects, but together: we may find ourselves informally asking questions that someone else has some insight on, we may end up pair-programming to fix a bug, we may get ideas from seeing someone else's sketch, or we may just appreciate the environment of being surrounded by others thinking. Even if this is not how you typically work, the experiment of this class involves working together in our own version of a hackerspace studio for approx. 1 hour each week. Some weeks, you may be helping others more than working on your own project - which may in fact foster your own ideas down the line. We'll be consistently checking in on what works and what doesn't for us - come with your sense of adventure!
- 1 absence, no questions asked
-  TL;DR
 - No, you can't just bail on Studio Time because you will go work @ home or somewhere else!
 - Leaving studio time counts as an absence

Asynchronous Work:

-  We will also have a lively, active Discord server
 - Everyone will give updates on their own project, weekly
 - 1 update, 1 question, 1 response
 - Document as you go!
- A place to share questions, resources, debug/design together, etc.
- More introverted, silent work - different styles, engagement
- Office hours will take place here, on Tuesdays
- Part of my role will be looking for themes that are surfacing across everyone's different projects, so I know how to help or what workshops I can bring

Asynchronous Work:

This screenshot shows a Discord server interface. At the top, there's a header bar with the server name "cs-design2-spring22" and a checked checkbox labeled "community-code". A message in the header states: "This is our community code, the guidelines we have agreed upon as a group that we will use to work together throughout ...". The header also includes icons for notifications, a star, a user, and a search bar.

The left sidebar contains several channels listed under categories:

- Events**
- community-code** (checked)
- # discord-mod
- PROJECT UPDATES**
- LEARNING**
 - # general
 - # questions
 - # resources
 - # debug
- LOGISTICS**
 - # announcements
 - # notes
 - # 1-on-1-meets
 - # opportunities
- VOICE CHANNELS**
 - Open Discussion
 - Office Hours 00:03

In the center, there's a large "Welcome to cs-design2-spring22" message with a subtext: "This is your brand new, shiny server. Here are some steps to help you get started. For more, check out our [Getting Started guide](#)". Below this are four call-to-action cards:

- Invite your friends > (with a purple bird icon)
- Personalize your server with an icon ✓ (with a green checkmark)
- Send your first message > (with a yellow speech bubble icon)
- Download the Discord App ✓ (with a blue phone icon)

At the bottom, there's a message input field: "Message #community-code" with a send button, and a row of small icons for gifts, GIFs, files, and smiley faces. The bottom right corner shows the user "mab253" is online.

Asynchronous Work:

**This course assumes
significant self-directed work
on your Senior Design project.**

This class is for YOU:

Prototypes, planned by you
Bibliography, planned by you
Workshops, determined by you

A close-up shot from a video. On the left, a woman with long, wavy, light-colored hair is shown from the chest up. She is wearing a dark red t-shirt and a purple and white striped knit beanie. Her hands are clasped together near her chin. On the right, the profile of a man's head and shoulders are visible; he has dark hair and appears to be wearing a dark jacket or shirt.

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CAN YOU JAM WITH THE CONSOLE
COWBOYS IN CYBERSPACE?

L·E·A·R·N·I·N·G



LEARNING IS DISCOVERING THAT NOTHING IS IMPOSSIBLE.

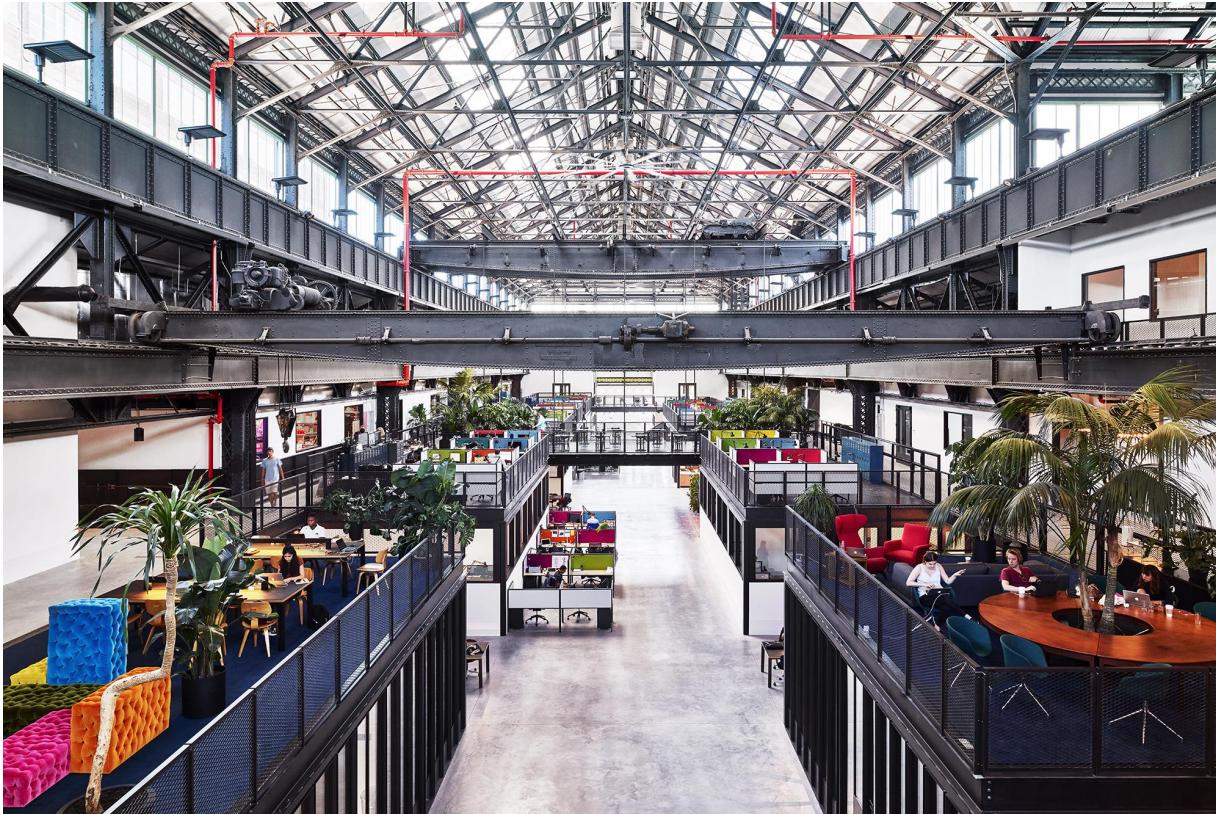
Methodology/Pedagogy

- Where does this experiment come from, for me (MAB) and my background?
 - my own education, thesis, arts
 - starting up communities, collectives
 - radical pedagogy, alternative ways of learning
 - “un-conference” corner of the tech world



Methodology/Pedagogy

- ...also ... jobs.



New Lab, Brooklyn Navy Yard

Community Code, Codes of Conduct:

- Think about a space where you've learned, that might be like what we're trying to make happen here (another class? Club? Writer's workshop, makerspace, sports team, political party? Or maybe this is new to you!)
- What has worked for you in collective spaces, in learning spaces?
- What skills can you offer to this group?
- What do you want from this group?

Community Code, Codes of Conduct:

- How will we agree to work together?
- Work in pairs
- Check out some existing Codes of Conduct:
<https://github.com/mab253/designII-fall2022/blob/main/workshops/week1/codes-of-conduct.md>
in Github repo, in workshops folder
- Discuss elements that you like, want to use, re-write, or change

Next:

- We don't meet again until MON SEPT. 12th
- MAB will email: survey, Discord invite link
- SURVEY DUE: FRI Sept. 9th by 5pm
- DISCORD UPDATE DUE: before Monday's class
- READINGS: (see syllabus)
 - *Hackerspaces: The Beginning*
 - On criticism, critical making
 - Video: example of a solid workshop