

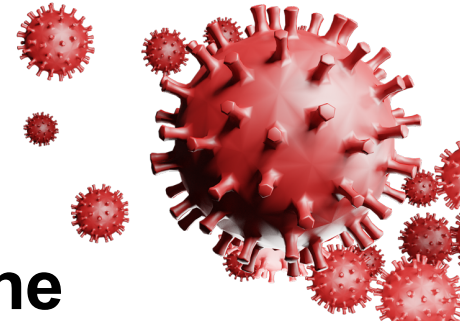
***together
we
build***



/ ANITA B.ORG **20th**

GRACE HOPPER CELEBRATION
VIRTUAL

PROFESSORS IN A PANDEMIC: Tips and Tricks for Teaching Online



Cynthia Lee, Stanford University

Helen Hu, Westminster College

CRA-W.org
@CRAWomen

<http://bit.ly/cra-teaching-2020>



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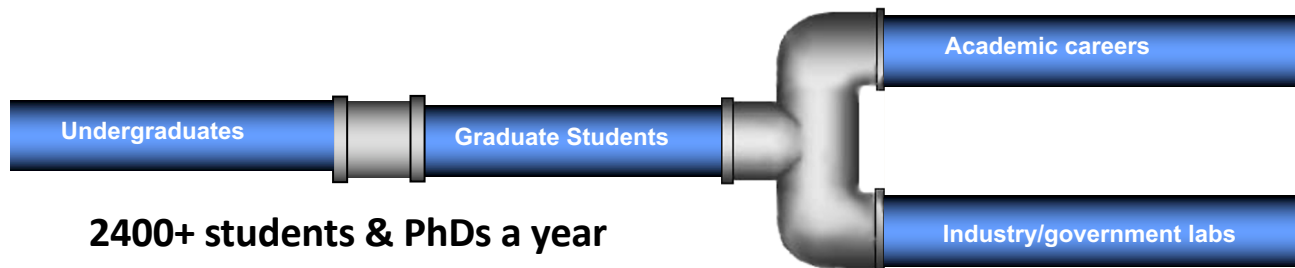
What is CRA-WP?

Individual & Group Research Mentoring

Undergrads: Undergraduate Research Experiences (CREU & DREU), Research-Focused Scholarship opportunities at GHC (GHC Research Scholars)

Grad Cohort: Group Mentoring of Graduate Students (Grad Cohort for URMD & Grad Cohort for Women)

Grad Students & Academics/PhD Researchers: Mentoring Tracks @ GHC, Returning Scholars @ GHC, Group Mentoring for Early & Mid Career @ CMW



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Helen Hu

What I'm doing this year:

- Chair of CS department
- Spring semester
 - Optional synchronous meetings, with asynchronous backup
- Fall semester
 - Officially hybrid (some in-person)
 - Most classes synchronous, virtual

Personal:

- Parent to two middle school students

Cynthia Bailey Lee

What I'm doing this year:

- Senior Lecturer at Stanford University
- Already completed Spring quarter completely virtual (~450 students)
- Fall quarter is virtual
 - Large Intro course
 - Small special topic discussion seminar: Race & Gender in Silicon Valley

Personal:

- "Like a cat lady, but for chickens"
- 🏳️‍🌈



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Principles of Pandemic Pedagogy

- Reciprocal flexibility and forgiveness between you and the student
- More about nourishing seeds of intellectual curiosity than fixed outcomes
- Attend to social and emotional needs

It's ok to just do less



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Modes of Teaching Online

- Asynchronous, Virtual
 - Students connect when they can
- Synchronous, Virtual
 - All students taking part online at the same time
- Hybrid
 - Some students in-person
 - Some connecting virtually (asynchronous or synchronous)
 - Ratio changes your strategy



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Asynchronous Virtual Learning

*Make **As Much** of the Course Accessible
Asynchronously **As You Possibly Can***

(Even if you are in-person, you will have students with individual crises to accommodate)

Asynchronous Virtual Learning

- Lecture: record it, even if low production values
 - Commit to a "show must go on" single take—no perfectionist re-dos and editing
- Office hours: capture for those who couldn't make it
 - Record a 3-5 min video of yourself giving an explanation that came up often
 - Take notes and publish FAQ for students
 - Email or Q&A forum availability
- Exams: take-home style
 - Time window of 48 hours worked well for my class
 - If needed, redesign your assessment style, rather than obsess about possibility of cheating



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Synchronous Virtual Learning

*Prioritize **Community Building** and
Collaboration during Class Time*



Goal: Engage Students

- Shorten Lectures – reduce passive learning
 - 3,2,1 chat tip
- Increase Time to Collaborate
 - Breakout Rooms
 - Structured Groups
 - Let students choose – co-hosts
 - Pair Programming



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Collaboration Options

- [Single Shared Slidedeck](#)
- [Separate Google Docs](#) for each group
(change *edit* to *copy* in URL)
- Pair Programming in collaborative IDEs
 - More shorter programs
 - Use subgoal labeling
 - Switch roles regularly – harder to announce



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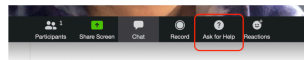
Breakouts: Structure & Check In

Instructions

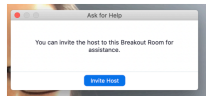
1. Find your breakout room's slides (Slides 4-5, 6-7, 8-9, 10-11)
2. Everyone should open jGRASP:
 - Facilitator - make sure everyone finds the Interactions pane in jGRASP
 - Everyone should type the sample code
3. Take turns filling in rows in the table
 - Quality Control - make sure everyone reaches consensus
4. Then answer the questions on your next slide
5. If time permits, summarize what you learned
 - Spokesperson - be prepared to share
6. [Ask for help if you need it](#)

This is a two-step process:

- 1) Click on "Ask for Help" at the bottom of your Zoom window.



- 2) Click on "Invite Host".



Please be patient... Helen will need to finish up the current conversation but will be with you soon.

- Detailed instructions in shared slides & chat too
- Keep track of rooms visited
- Back-channel for TAs
- Clarify [help process](#)
- Schedule breakout room creation



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Trauma-Informed Pedagogy

*Teaching During a Pandemic,
and a Civil Rights Movement,
and an Economic Shutdown,
and a Hurricane,
and a Fire, ...*




Restoring **Agency** in a Time of Chaos and Helplessness

- Instead of this:

- Mandatory breakout rooms for problem solving
- Video office hours only
- Mandatory camera on so you aren't teaching a sea of names:



- Try this:

- Each class, students set reacts to indicate willingness   
- Synchronous text chat office hours option
- Students set a Zoom profile photo for when camera needs to be off



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You're a **Teacher**, Not a Cop

Redesign

requirements and
assessments,

Not policing,
or double-down
on control and
surveillance

- Students record a video of their thought process for a problem, post on YouTube
 - *Watch at 2x speed for faster grading 😊*
- Students create a visual tutorial about a topic for future students
- Students design an exam problem, including a whole teacher's guide
 - *Learning goals, at least 2 different solutions, common misconceptions the problem tests for*
- Mastery learning



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Mastery Learning

Allow "revise and resubmit" of exams or other work

- No deadline pressure—focus is on crossing finish by the end
- No cheating incentive—staff will help students fix any errors, so why copy?
- No headaches for **you** to manage extensions, etc

** maybe not "no" these things, but at least greatly reduced*



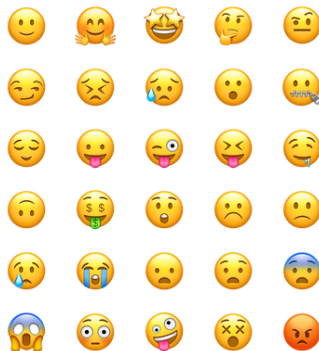
Executive Function is Severely Taxed During Stress

- Communicate more

- Reiterate course expectations

- Check-in regularly

- "Tag yourself" mood photos, Anonymous Polls, Exit Tickets (Google Forms)
- Smaller classes: meet 1:1 for code reviews



- Lenient extension policy

- No reason needed if requested before deadline
- Requests for second extensions prompt check-in
- Reaching out to late students without extensions



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Principles of Pandemic Pedagogy

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Last Thought: These Principles Can
Be Self-Care for You, Too



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Resources Throughout

Examples for Student Collaboration:

- [Shared Slide Deck](#) / [Google Doc for Graded Work](#) / [Help Instructions](#)

Tools:

- [Ed discussion forum](#) with in-browser code execution
- Breakouts: [In MS Teams](#) / [In Google Meet with "Choose a Work Room" template](#)
- Pair Programming: [Repl.it \(instructions\)](#) / [Ed](#) / [glitch](#)
- Polls: [Poll Everywhere](#) / [Zoom Polls](#) / [Mentimeter](#) / [Kahoot!](#)
- Cameras and Screens: [Example Setup](#) / [DIY document camera](#) and [v2](#)

Further reading:

- [3 Proposals...to Reduce Inequality: An Urgent Call to Action for Online Teaching](#)
- [What Does Trauma-Informed Teaching Look Like?](#)
- ["Nobody signed up for this": One Professor's Guidelines for an Interrupted Semester](#)



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