

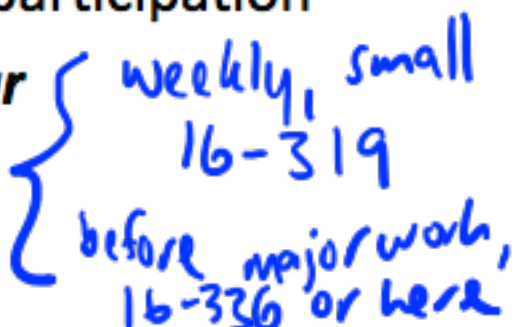
Find a lab bench and a partner!
Cubbies for bags next to entrance.
Pick up **4** handouts at front bench.

- **Introductions**
- **20.109 Philosophy Recap**
- **Semester-Long Workflow**
- **Day-to-Day Workflow**
- **Lab Safety**
- **Self-/Guided Lab Tour**
- **EHS Biosafety talk: 4:15 pm**

The three pillars of 20.109

- Authentic investigation *real protocols*
 - elements of design, unknown outcomes
 - Authentic communication
 - toward professional talks, writing, & visuals
 - if you can't explain it → you didn't understand it*
 - Extensive collaboration... (with limits)
 - group assignments should reflect equal contributions
 - individual assignments may be *discussed* together, but must reflect your own understanding and communication
- well teach you best practices*

Semester-long workflow

- Work in pairs
- Broader community collaboration
- Assessments
 - Major: reports and presentations
 - Minor: FNT, quizzes, notebooks, participation
 - ***Please ask if something is unclear*** 
 - *available over email, OH*
 - ***Key to success: plan ahead and manage your time***

Day-to-day workflow

- Hand in homework (FNT), get graded FNT back
- Announcements and/or FNT discussion
- Quiz 1:10 sharp 10! $\sim 3x/\text{module}$
- Pre-lab interactive lecture
- Lab work
 - see wiki (aka “your friend... or frenemy” --Shannon)

Syllabus = “schedule” + “assignments”
(+ “home”)

Electronic lab notebooks

- Flexibility and one-stop access for protocols and data
- Register for an Evernote account and 'share' your 20.109 notebook with Chris and Agi
 - Chris: cbandoro@mit.edu
 - Agi: agi.stachowiak@gmail.com
- Preparing your notebook
 - naming convention: 20.109(S14)_FirtNameLastInitial
 - let me know associated email account
- More about notebooks next time!

Lab safety: environments

- At the benches
 - coverage (closed-toe shoes etc.), gloves: ~always
 - nitrile gloves at gel bench
 - glasses: optional unless *chemical* *fire* *splash* *particulate*
 - lab coat: optional *-except BL2 (M101)*
- At the fume hood *+dos/don'ts!*
 - glasses, lab coat, gloves: always
- In the tissue culture (TC) room
 - lab coat, gloves: always (except today)
 - no cross-contamination with main lab! (even today)
- Just in case... eyewashes, shower

Lab safety: material hazards

- Chemical
 - caustic
 - toxic (acute, mutagenic, or other effects)
- Biological
 - infectious
- Minor
 - irritants
- Related waste disposal (infrequent)
 - chemical waste in fume hood (tubes → us)
 - biological liquid waste is bleached (vacuum traps)
 - see also posted sink-safe lists

Lab safety: waste disposal (frequent)

general

- gloves
- tubes (plastic)
- tips, other weak sharps



- true sharps
- needles
 - glass tubes, pipets



biological solids

- Petri dishes



you
daily

us
when
full



burn box

all ends
up here!