Teaching Your First Course
Why Do We Teach?

- So that individuals *learn*
- To convey the excitement of our intellectual area
- To capture interest and imagination
- To ensure deep understanding
- To share our own research efforts
Who Do We Teach?

- Undergraduates (focus for today)
  - Majors
  - Non-majors
- Graduate Students (focus)/Post-docs
- Colleagues
- Your chair, your dean
- The public
- Program managers/patent office/others
Remember…

- Developing a good course takes time
  - Learn good time management
- What students learn is less than what you teach
  - Don’t just try to cover the material
- Understand different learning styles
  - Students have different ways of learning
  - Use the resources you have available
  - Be aware of accessibility requirements
What Is the Nature of Your Course?

- Large/medium/small enrollment?
- Lecture-type classroom or smaller more intimate setting?
- Majors? Upperlevel or lower level?
- Non-majors?

NOTE: Styles for these different types of courses are quite different!
Think About “Active Learning”

- Traditional/passive learning = lectures + exams
- Student-centered, active learning can include (among many possibilities):
  - Use of I-Clickers
  - On-line quizzes
  - 1-2 minute papers
  - Student discussion and reporting
  - Projects
Find Out About Resources

- Are i-Clickers available?
- What support for teaching is available?
- Are there faculty groups to discuss teaching?
- Are there on-line resources in your area for student-centered learning?
- Are there sessions at professional meetings or specific meetings relevant to your area?
- Will your Chair pay for you to attend?
Know About Yourself

- If you are asked what you’d like to teach…
  - Do you really love a big lecture setting?
  - Does a small group setting elicit a sense of excitement or a sense of dread?
- You may not have the opportunity to choose, but knowing what attracts you (and why) may help in dealing with your teaching assignment.
Preparation is Key

- Plan for 6-8 hours of preparation per class session the first year
- Get notes from the previous lecturer, but make the course your own
- Be familiar with the material (rehearse a lecture beforehand if you need to)
- Don’t wait until the last minute
  - Not much room to improvise
  - May be easier in smaller classes
Do’s and Do Not’s

- Do not expect perfection
- Do not expect eager, listening faces
- Do learn the names of your student if at all possible
- Do get feedback *during* the semester
  - You can adjust accordingly
- Do work the problems yourself
  - Texts have typos and errors – read the text
Think Very Carefully About Your Syllabus

- Textbook information
- Policies/Grading information
  - What makes up the grade? Is there a curve?
  - Are there make-up exams?
  - Don’t change point assignments mid-semester — stick with the syllabus
  - Think through the grading scheme — they’ll ask, so you might as well be ready!
Don’t Make Exceptions

- If you make an exception for an individual, it will be an exception for the entire course
- Do you allow —
  - Regrading?
  - Late tests? If not, how is grade determined if student was ill/had a death in family?
Finding Your Style

- Adopt a preparation style that suits you
  - If you over-prepare, limit the time by doing it closer to the class
  - If you are anxious, prepare ahead of time but “budget” the time you spend

- Adopts a lecture style that suits you
  - Lots of PowerPoint slides with detail — give students a copy
  - An outline that you fill in
What You Project Matters

- Students pick up on your attitude
  - If you care, they will be more respectful and forgiving
  - If you dismiss them, they will reciprocate
  - If you are open, they will engage
  - If you are defensive, they will attack

- Large classes are harder
  - Get to know a subset of the students by name to break down barriers
Challenges for Women

- Openness can be interpreted as being familiar/easy
  - Students can try to take advantage in a variety of ways and can impact the class
    - Talking to them privately may work
    - Sometimes you just have to shut them down if possible
- Dressing more formally has worked for some women
Find Your Own Style

- Do what makes you feel most comfortable
  - Clothes
  - Presentation style
- Listen to feedback and adjust your style, to the degree you feel comfortable, accordingly
You CANNOT Know Everything

Know that a student will ask a question to which you do NOT know the answer

- Tell them it’s a great question
  - Ask them what they think OR
  - Invite them to come by after class and talk because it’s a little off topic for the day OR
  - Indicate you don’t know, but there are a number of ways to find out
    - Do a web search, find a research article
    - Ask a colleague with expertise
  - Tell them you’ll let them know next class
There Will *Always* Be Someone

- ...who is bored and looks it
- ...who drives you crazy
  - Talking, reading, sleeping, smirking
- ...who questions your authority
  - Directly or indirectly
- ...who does not follow instructions
- ...who simply does not “get it”

Keep your balance, get input, stay steady and *get support when you need it!*
Issues With Today’s Distractions

- Facebook, Twitter, YouTube
  - All compete for your attention and are here to stay; banning computers won’t work
- They expect your respect, you have a right to expect theirs
- Find your own comfort level in handling these distractions
  - If they make you less effective, you can simply tell the class, these activities make me less effective and impact everyone
Examinations

- Establish your guidelines (check with your department/institution)
  - Examples: No A/V device (no iPhone, no iPods, no headphones, nothing electronic)

- Determine the grading policy
  - Go over it with any graders involved
  - Determine policy/process for regrades

- Decide whether to provide a complete answer sheet for the examination
Classroom Needs Vary

- Mathematicians use blackboards
- Biologists use Powerpoints
- Chemists and physicists often use classroom demonstrations

Discover the culture of your discipline at your institution and operate within that culture
Ensuring Assignment Reading

- Use on-line quizzes (probably easiest and best)
  - Variety of resources, often campus-specific
- Pose a specific set of questions and assign them to subgroups
- Assign topics to specific individuals
For Smaller Classes

- Class engagement is more feasible
  - Lecture preparation less onerous
  - Case-studies can be used
- Group activities engage everyone
  - Can do some of this in larger classes, too
- Learning to write is important
  - Can use peer as well as instructor feedback
Seeding Discussion

- Have all (or subsets of) students read a specific assignment (often a chapter or a research paper)
- Ask for critiques of the assignment
  - What makes sense, what doesn’t
  - Why
- Find ways for students to engage each other with your guidance
Evaluations

Do

- Think about the feedback
- Incorporate changes as appropriate
- Note that *completely opposite* comments will be provided
  - “Too much biology, not enough engineering” vs “Too much engineering, not enough biology”

Don’t

- Take feedback too personally
- Try to figure out who said what
After – Recap and Revise

- Fix the lectures/activities that needed the most work first
- Know that you will need to write new exam questions (word gets around)
- Get a teaching mentor and meet ~monthly and go over everything
Time Management/Balance

- Set office hours and keep them
  - Drop-ins can eat away your time
- Try to teach the same course over multiple years
  - Make appropriate adjustments, but minimize preparation time
- Limit undergraduates in your lab to what you can effectively mentor
Find Colleagues for Feedback

- How to deal with absent/failing students
- How to deal with students who are not like you were
- How to recycle quiz/exam questions safely
- How to be appropriate responsive to student requests
- How to protect your time
- How to know what is critical/not critical
Dealing with Teaching Assistants

- Find your comfort level and have a strategy for quality control
  - Can they grade homework? Exams?
  - Can they grade written assignments?
  - Can they convene help sessions?
  - Can they hold office hours?
  - Can they assist in the classroom?
- Can break up assignments based on what you perceive specific individuals can do
Dealing With Parents

- You, for privacy reasons, cannot answer questions from someone other than the student about their performance.
- If the student and parent come to see you together, you can provide input and advice about what is happening to the student.
Dealing with Cheating

- Ask if your institution has an Honor Code
- Discover your institution’s policies on cheating
  - Follow the procedure carefully
  - Decide whether to xerox exams before returning them to prevent changing answers
- Find avenues that work for you!
Tips From Faculty

- Put office hours right after class
- If you have TAs, direct questions first to them (convey that as you are accessible, but they have to check with the TA first)
- Provide a measured response to emails
  - Do not establish high expectations for rapid response (and make longer response times for repeat questions to avoid reinforcement)
- Establish clear criteria for regrading (exams, homework, etc.)
- Accept that someone(s) will have big problems
Tips From Faculty

- One faculty member had students in a large course write down names of two students in the class to contact with questions before even the TA
- Direct students to a blog site (but you have to monitor to ensure answers are correct)
- Draw clear boundaries
  - Don’t instant message
  - Can use Facebook site for the course, not for the instructor (don’t “friend” students)
- Use “announcements” for any errors in class
Tips From Faculty

- Know your institutional culture
- “Good” teaching varies with institution
- Ask a lot of questions about expectations
  - From the institutional hierarchy (e.g., P/T)
  - From faculty colleagues
  - From students if you have the opportunity
- “Good enough” really is good enough
  - Perfection is probably not an option
Tips From Faculty

- Keep your research effort dynamic and healthy!
- If you get a hard teaching assignment, ask to keep it for multiple years.
- Some departments use team teaching.
  - Be sure you communicate with your co-teacher and agree on the course design.
- Don’t negotiate grades — use your best judgment and be prepared to defend it.
Tips From Faculty

- Alert students who are at risk of failing
  - Email that says that their standing is well below average and that they should consider getting a lot more help for the class or dropping the class.

- Smaller classes allow more personal interaction with the lagging students
  - The student has to seek/get help
  - Faculty member cannot “fix” the student
Tips From Faculty

- Grading group projects
  - Group grades
  - Each person grades their own work and each person in the group
  - Give them option to report group isn’t working and find ways to fix it
- Check copyright policy procedures at your institution before copying copyrighted material
Teaching Can Be Fun!

- Develop a teaching style with which *you* are comfortable
- Be diligent, but don’t over-stress
- Seek help/feedback if you run into problems — don’t just suffer
- Anticipate future years when you run into students and they thank you for your course and what it did for them!!