



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!!

