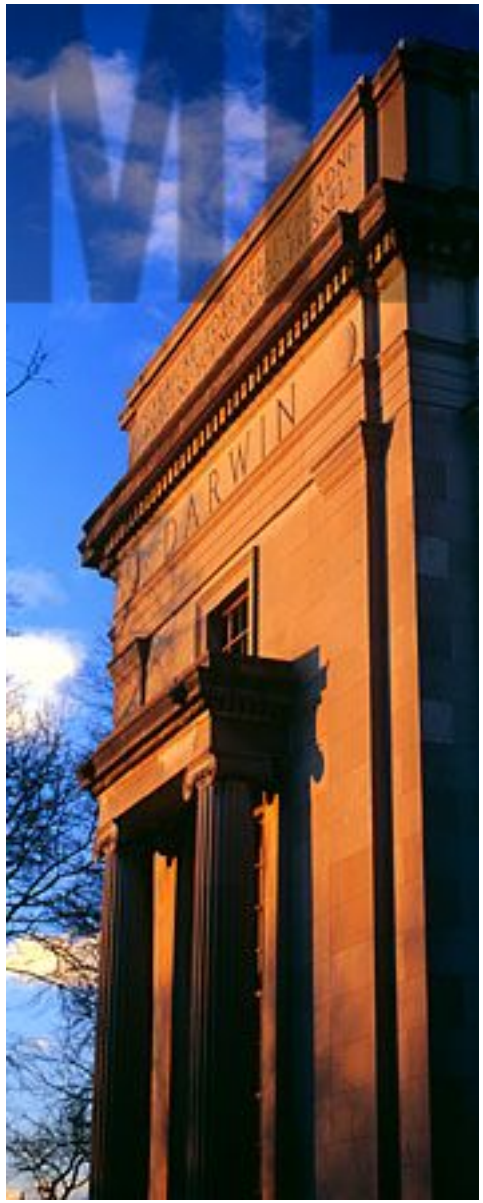
BE TA Training

Forest White
Alan Jasanoff
Agi Stachowiak
Many slides from John Essigman

August 29-30, 2011



Today's Agenda

- 10:15-11:10 Intro lecture (White & Jasanoff)
- 11:10-11:45 Team discussion (small groups)
- 11:45-1:00 Q&A w/TA mentors, lunch
- 1:00-1:10 TAing in BE (Lauffenburger)
- 1:10-1:45 Microteaching demo (White)
- 1:45-2:30 Teaching & diversity (Stachowiak)

Tomorrow's Agenda: Microteaching

- Required for lecture subject TAs only
  - Lab class TAs please see us if interested
- 1-1.5 hr commitment (b/w 10 am and 3:30 pm)
- As presenter
  - 6 min recitation on given topic/problem
  - Listen to feedback
  - Receive DVD of your talk
- As audience
  - Act as if a student in class
  - Give *constructive* feedback

Group formation, responsibilities

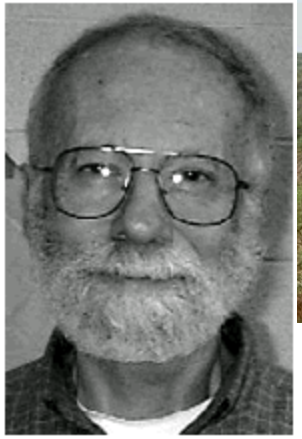
- Groups of 3-6 people + 1-2 mentors
  - Teaching similar class or student population
  - 5 lecture subject groups
  - 1 lab subject group
- All groups will meet and discuss
  - Learning experiences
  - Teaching ideas
- Lecture subject groups must pick time for microteaching session
  - Sign up on wall during lunch
  - For intractable scheduling conflicts, see us

Agenda for SoE-wide Training

Sep. 2, 9 am-12 pm in 3-270. School of Engineering-specific training.
Note: Please pre-register by email to Leann Dobranski

http://engineering.mit.edu/education/education_resources/ta/ta-workshop.php

- Interactive teaching techniques for TAs
- Teaching problem-solving
- Classroom demonstration and role-playing



Arthur Mattuck

Sanjoy Mahajan

See Arthur here: http://web.media.mit.edu/~walter/mattuck.html

Departmental Philosophy

- In BE, quality teaching is critically important
  - This is an SoE mandate
- Teaching experience via the TA mechanism is an important part of your education
- Instills a better understanding of our discipline
- Builds skills
  - Oral and written presentation
  - Leadership
  - Teamwork
- Puts you in contact with a faculty member who probably is not your advisor
  - Becomes part of your professional interactome
- Not to mention pragmatics
  - Tuition is ~$38K

TA Assignments in BE

- Dept. needs ~ 25 TAs per year
- How are assignments made?
  - Doug does it, with some faculty input
  - Doug knows student and instructor personalities
  - Goal is good fit based on student interest and skills
- Most of you are 2nd year graduate students
  - Several undergraduate TAs and postdocs
- BE grad students required to TA one term
  - More in most other departments

Some Facts about TAing in BE

- Do advisors/department get reimbursed for the time you are a TA?
  - Department gets “TA Slots” from Institute
  - Used to support you in first year
  - Those slots pay-forward to reimburse your later RAship
- Do TAs get graded?
  - Graduate TAs register for 20.960 (12-units)
  - Remember, TAing is part of your education
- How much time does it take … really? Later we’ll review results from BE Board survey (hours per week)
  - SoE guidelines call for 20-24 hours per week

Official TA Duties

8.0 GRADUATE STUDENT APPOINTMENTS
8.2 Appointment Categories
8.2.2 Teaching Assistant

The principal duties of a teaching assistant include assisting faculty members in classroom and laboratory instruction, preparing apparatus or material for demonstration, conducting tutorials and discussion sections, and grading quizzes. A full-time teaching assistant usually receives a scholarship to cover tuition costs, in addition to a stipend; a part-time teaching assistant may receive an appropriate partial tuition scholarship.

MIT *Policies and Procedures*, 2008

Specific TA Roles in BE

- Graduate lecture class TA
  - office hours, often some grading
- UG lecture class TA
  - office hours, grading exams, recitation
- In some lecture classes
  - run exam review sessions, pre-take exams, write extra practice problems, write homework solutions, clean blackboards
- Lab class TA
  - pre-run experiments, grading, high contact hours
  - safety is of utmost importance (moral, legal issues)
- Course development
  - on more *ad hoc* basis
- Ultimately, class- and instructor-dependent
  - Have expectations-setting meeting before classes begin

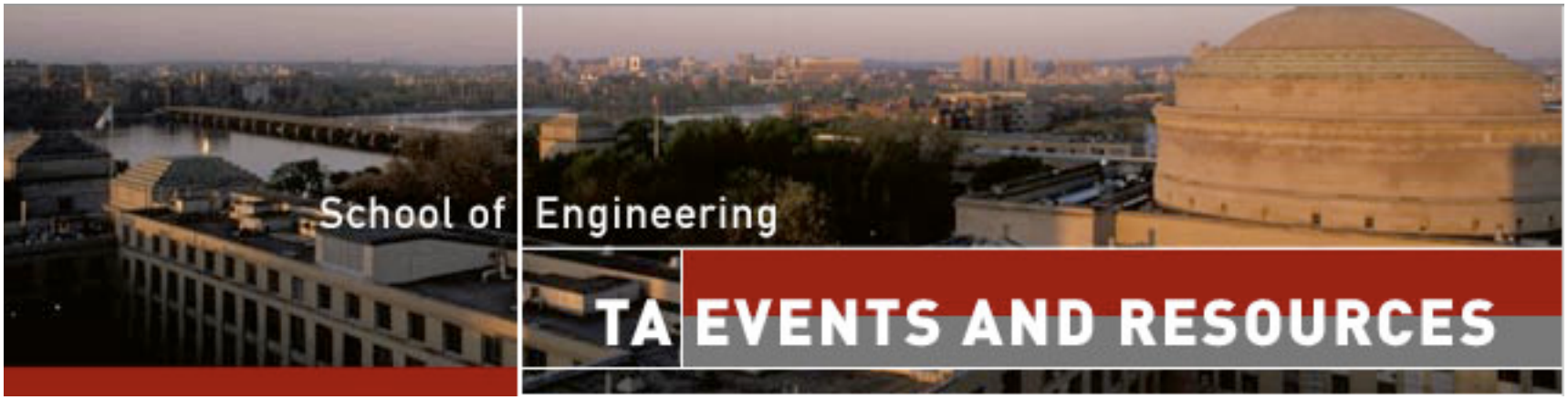
General duties in all roles

- Know your students
  - Get pictures from Stellar/WebSIS
- Know your material
- Attend lecture and periodic (weekly?) staff meetings
- Sundry help within reason
  - Help maintain course web page
  - Track grades, etc. of students in your section
  - Make photocopies, bring items to class, library assistance
- Help assign final grades
  - You are the student advocate
- Note: formal lecturing is the instructor's job

Resources Around the Institute

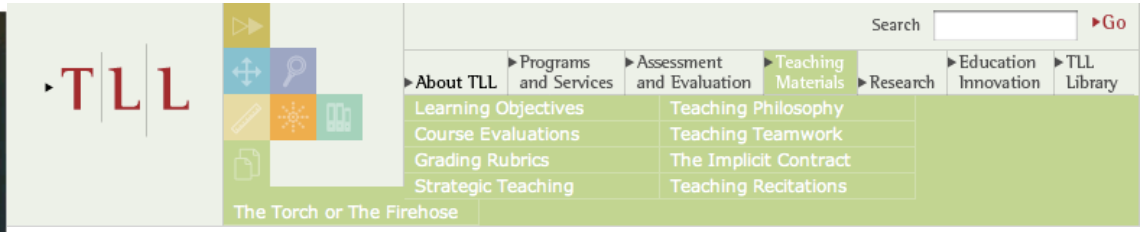
School of Engineering TA Site

- http://engineering.mit.edu/education/education_resources/ta/
- Teaching resources
  - Concise tips plus reading list
- Info on e-administration
  - Creating web sites and mailing lists
- Micro-teaching workshops



Teaching and Learning Laboratory

- http://web.mit.edu/tll/
- Useful web site and resource material
- Offer training workshops
  - Pedagogy experts
  - Emphasize “active learning” – may not be your style



Lori Breslow

OpenWetWare

- Biology/bioengineering public wiki
  - Wealth of information
- Some support, but more DIY than Stellar
- BE lab subjects hosted here
- Potential discussion space
  - Students post questions
  - Students try to answer each other
  - You check page periodically

TA Course Web Pages

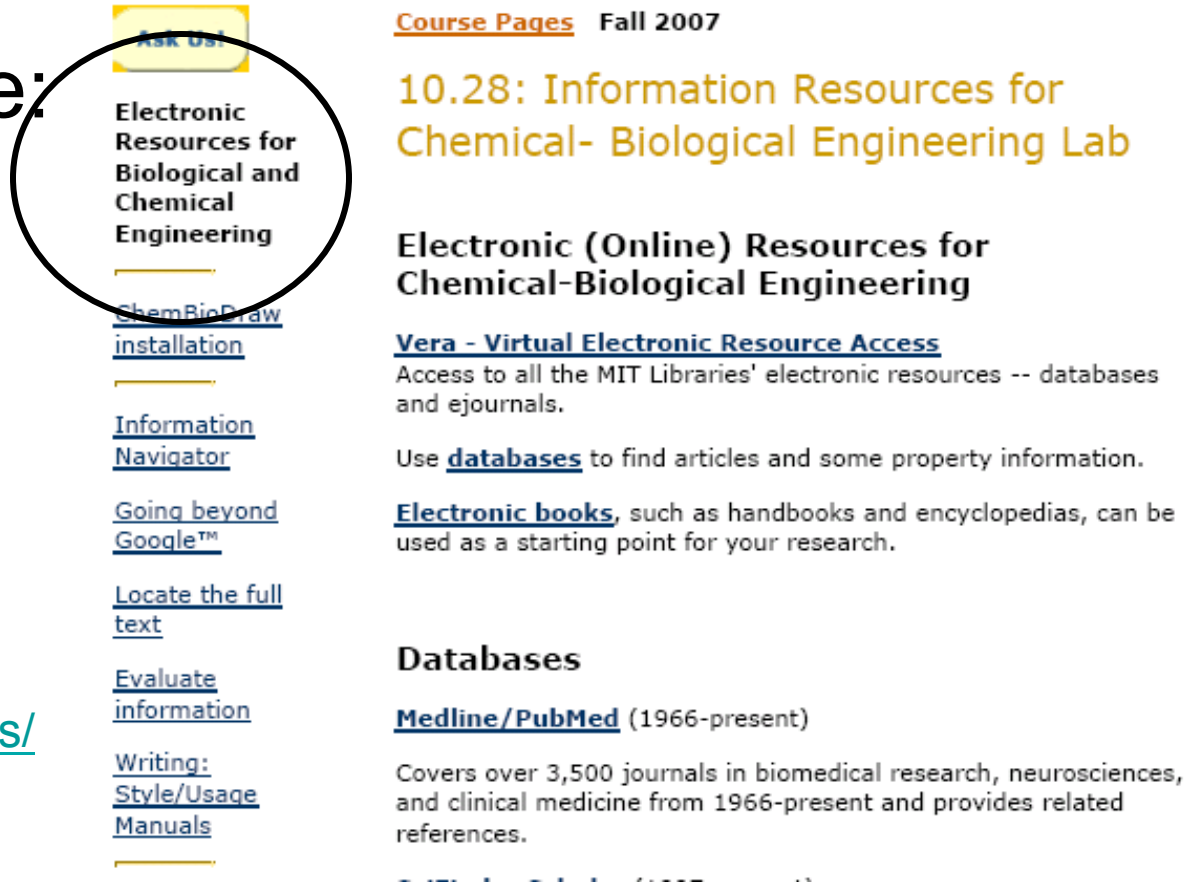
- Stellar – Show 20.320 and 20.380 web sites
  - http://stellar.mit.edu/

MIT Course Management System

- Blogs and Wikis
  - http://scienceblogs.com/effectmeasure/math_model_series/

MIT Libraries

- They will set up a resource page for you
- Very cooperative
- An example:



http://libraries.mit.edu/guides/courses/fall2007/10.28/index.html

“Institutional Memory”

- Talk to former TA’s in the course to understand issues that may have occurred
- Ask instructor or former TA of course if you can look at his/her course evaluations
  - There may be useful suggestions
  - Avoid reinventing the wheel
  - But not all instructors will want to share these data

Know the Rules

- MIT Policies and Procedures
  - http://web.mit.edu/policies/
- MIT Chair of the Faculty Guidelines
  - http://web.mit.edu/faculty/teaching/termregs.pdf

For undergrad subjects:

- No academic exercises between 5-7 PM
- No night exams before 7:30 PM
- No Monday evening exams

Issues to Consider

- Be consistent in your dealings with students
  - If there is more than one TA, be sure to communicate
- Disability issues
  - Kathleen Monagle
  - Section 504 of the Rehabilitation Act
  - Students must have a formal assessment
- Missed work … what constitutes a reasonable penalty and what time lines are appropriate for make up?
- Illness – Make sure the student is OK first, then deal with make-up issues
- Resources: Housemasters, Deans, Department Head, Academic Advisors, Medical Department, S^3, REFS
- Diversity
  - Race, gender, sexual orientation, age, socio-economic status, social skills

Office of Minority Education

- Undergraduate population is about 20% under-represented minorities
  - MITES and other programs give a pipeline of extraordinary quality
  - Do what you can aid retention, encourage academic careers where appropriate
- Dean DiOnetta Jones
- Runs a variety of programs & services
  - http://web.mit.edu/ome/programs-services/index.html

OME

Issues to Consider

- Acting professionally
  - Teachers can be friendly (hopefully) but have a professional relationship with the class
- Get feedback from instructor on your teaching performance
  - How did you do, and how could you do better?
- Ask for feedback from students
  - Confidential questionnaires
- Think outside of the box – Have fun
  - E.g., office hours at 10 PM at 24-Hour Coffee House
  - Coffee with students before class
  - Movie "study break" relevant to class material
    - *And the Band Played On* (HIV/AIDS), *Glory Enough for All* (Insulin), *Race for the Double Helix* (Watson/Crick/Franklin)
  - MIT might (?) provide resources for good ideas ($$$)

Academic Dishonesty

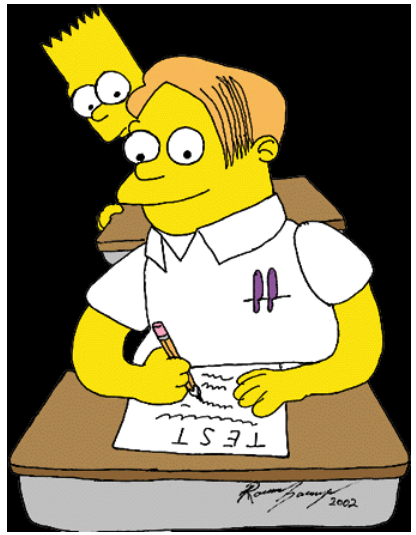
- *Policies and Procedures* says:

10.0 ACADEMIC MISCONDUCT AND DISHONESTY
10.2 Procedures for Dealing with Student Academic Dishonesty
MIT Policies and Procedures

MIT assumes that all students come to the Institute for a serious purpose and expects them to be responsible individuals who demand of themselves high standards of honesty and personal conduct. Cheating, plagiarism, unauthorized collaboration, deliberate interference with the integrity of the work of others, fabrication or falsification of data, and other forms of academic dishonesty are considered serious offenses for which disciplinary penalties can be imposed.

Some academic offenses by students may be handled directly between the faculty member and student, possibly with the assistance of the head of the faculty member's department.

Academic Dishonesty



Cheating happens

- What to look for
  - Session with past TAs will be informative
- How to deal with it?
  - Several paths, but the following is typical
  - TA -> Instructor -> Department Head -> DUE/DSL -> Triage -> Committee on Discipline
  - Check *Policies and Procedures*
  - http://web.mit.edu/policies/10.2.html
- Medical issues may click in when the student is confronted – advise student to seek help
  - One option is to send e-mail to students at risk or in trouble
- MIT procedures regarding citations (plagiarism)
  - http://libguides.mit.edu/content.php?pid=37801

Cheating (Cont.)

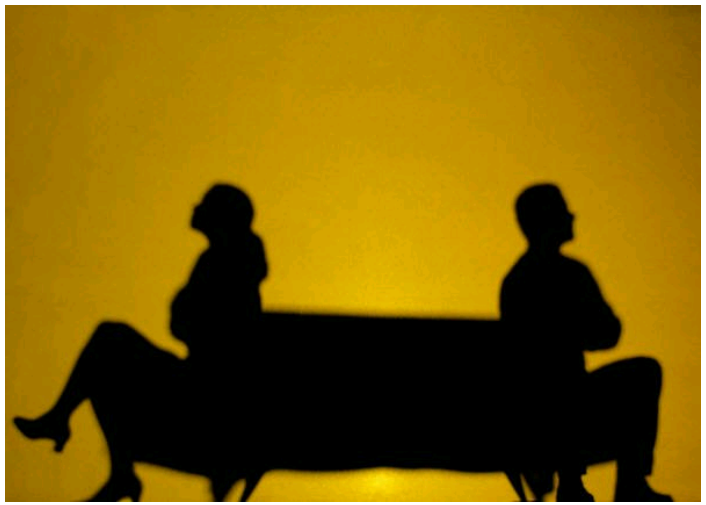
- Clear, concise rules need to be established at the beginning of the course
- Because some students do not go to class, or show up late, collaboration policy should be included on Stellar site
- If problems arise, it is best to confront and discuss the problems with the student in person; do not do this via e-mail

Other situations you may encounter

- I want a re-grade.
- I felt sick so I missed the exam. When is the makeup test?
- My roommate is despondent. I have been staying up with her to keep her from hurting herself. I was unable to do the problem set.
- The workload is too much. I am exhausted. Can I have an extension?
- I overslept and missed the exam.

Mediation and Conflict Resolution Resources

- http://web.mit.edu/mediation/refsprogram.html
- http://web.mit.edu/chemistry/www/links/mediation.html
- http://web.mit.edu/ombud/index.html
- http://web.mit.edu/policies/



Workload and Time Commitment

- What if the workload is too much?
  - On students
  - On you
  - What is reasonable for a TA?
    - The “book” says ~20-24 h/week
    - Including preparation time
    - If more than 25 h, talk with instructor
    - A student group size of ~25 is reasonable; you can get to know them reasonably well

Want to TA Professionally?

- Consider using your soon-to-be perfected TAing skills to help the next generation of MIT students
  - http://web.mit.edu/mites/
  - http://web.mit.edu/seed/
  - http://web.mit.edu/stem/

Your First Meeting with Class Instructors

- Discuss expectations
- Go over the syllabus
- Understand collaboration/grading policies
- Primarily for UG courses – what do you say to the ‘How am I doing in the course?’ question
- Again, if your Instructor does not approach you, be proactive