Incorporating Awareness of Professional Ethics into Science Courses

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What Is Ethics?

“Ethics refers to standards of conduct . . . that indicate how one should behave based on . . . principles of right and wrong. As a practical matter, ethics is about how we meet the challenge of doing the right thing . . . “

Making Ethical Decisions, Josephson Institute of Ethics

http://www.josephsoninstitute.org
What is Professional Ethics?

A standard or code of conduct which members of a profession expect of other members.
General Interest in Requiring Teaching of Ethics

- Challenger explosion
- Cold fusion
- Baltimore Case
- Gallo Case
- Investigations of professional misconduct common in journals and newspapers
Examples of Professional Codes

- Accreditation Board for Engineering & Technology
- National Society of Professional Engineers
- American Mathematical Society
- National Education Association
- American Association for the Advancement of Science
Examples of Professional Codes

- Over 850 explicit codes available online at http://www.iit.edu/departments/csep/PublicWWW/codes/codes.html

- Some codes are less explicit such as responsible conduct of research training, required for NIH & NSF trainees.
Awareness of Professional Codes

- When students enter the professional world, they will be expected to follow an explicit or implicit ethical code.
- Do we teach students that codes exist?
- Do we teach students how to deal with ethical dilemmas in their professional lives?
My Experiences

- Became interested in scientific ethics after a seminar last spring
- Attended a summer workshop on incorporating teaching of ethics into science classes
- Center for the Study of Ethics in the Professions, IIT
How I’ve Incorporated Ethics

- Lecture (Codes & Guide)
  - PowerPoint Presentation
  - Exam Questions
- Case Study #1 Authorship (No Real Dilemma)
  - Group Discussion
  - Worksheets (following Guide)
- Case Study #2 Authorship (True Dilemma)
  - Discussion Boards on Web
  - Required Postings & Paper
Guide to Ethical Decision Making

2. Check facts.
3. Identify relevant factors.
4. Develop list of options.
5. Test options.
6. Make a choice.
7. Review the first 6 steps.
What You Can Do In Your Class

- Awareness of standards or codes within your discipline *(lecture or students look up)*
- Use codes to illustrate necessity of your course content
- Historic cases, videos & discussions
- Case studies & role playing
Resources for Studying or Teaching Professional Ethics

- Center for the Study of Ethics in the Professions, Illinois Institute of Technology
- Institute for the Study of Applied & Professional Ethics, Dartmouth College
- Institute for Global Ethics
- Josephson Institute of Ethics
Resources for Studying or Teaching Professional Ethics

- AAAS – Code & Video Project
- NIH
- NSF
- Most professional societies
- Association for Practical & Professional Ethics