Getting Started: Selected Resources for New Instructors of Ethics in Science, and Engineering and Computing

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This short list of basic resources is intended to help the new instructor of ethics in science, engineering, and computing.

1. Ethics in Science

Short booklets on responsible conduct of research

Committee on Science, Engineering, and Public Policy; National Academy of Sciences; National Academy of Engineering; and Institute of Medicine. (2009). *On Being a Scientist: A Guide to Responsible Conduct in Research* (3rd ed.). Washington, D.C.: National Academy Press. Online at http://www.nap.edu/catalog.php?record_id=12192.

Steneck, Nicholas H. 2004. *ORI Introduction to the Responsible Conduct of Research*. Updated versions available online at http://ori.dhhs.gov/publications/ori_intro_text.shtml.

Full textbooks on responsible conduct of research

Macrina, Francis L. (2005). *Scientific Integrity: Text and Cases in Responsible Conduct of Research* (3rd ed.). Washington, D.C.: American Society for Microbiology.

Shamoo, Adil E., and David B. Resnick. (2009). *Responsible Conduct of Research* (2nd ed.). New York: Oxford University Press.

Online courses on responsible conduct of research (non-credit)

Responsible Conduct of Research, Columbia University
http://ccnmtl.columbia.edu/projects/rcr/

Advice for instructors of research ethics

Resources for Research Ethics Education
http://research-ethics.net/

Poynter Center for the Study of Ethics and American Institutions, Indiana University
http://poynter.indiana.edu/tre/resources.shtml

2. Ethics in Engineering

Short textbooks on engineering ethics

Fleddermann, Charles B. (2007). *Engineering Ethics* (3rd ed.). Prentice Hall.

Martin, Mike W., and Roland Schinzinger. (2009). *Introduction to Engineering Ethics* (2nd ed.). New York: McGraw-Hill.

Full textbooks on engineering ethics

Harris, Charles E., Jr., Michael S. Pritchard, and Michael J. Rabins. (2008). *Engineering Ethics: Concepts and Cases* (4th ed.). Belmont, CA: Wadsworth.

Martin, Mike W., and Roland Schinzinger. (2005). *Ethics in Engineering* (4th ed.). New York: McGraw-Hill.

Videos of engineering ethics cases

Gilbane Gold (1989)
Incident at Morales (2003)
Henry's Daughters (2010)
All three are available from the National Institute for Engineering Ethics
(http://www.niee.org).

Full disclosure: I am a member of the Executive Board of the National Institute for Engineering Ethics

Advice for instructors of engineering ethics

Davis, Michael. (1999). Teaching Ethics Across the Engineering Curriculum. Online at
http://www.onlineethics.org/Education/instructessays/curriculum.aspx

3. Ethics in Computing

Short textbook on computer ethics

Johnson, Deborah G. (2009). *Computer Ethics* (4th ed.). Upper Saddle River, NJ: Pearson Education.

Full textbooks on computer ethics

Baase, Sara. (2008). *A Gift of Fire: Social, Legal, and Ethical Issues for Computing and the Internet* (3rd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Quinn, Michael J. (2011). *Ethics for the Information Age* (4th ed.). Boston: Addison-Wesley.

Tavani, Herman T. (2011). *Ethics and Technology: Controversies, Questions, and Strategies for Ethical Computing* (3rd ed.). New York: Wiley.