

Bioethics Curriculum Online

Access Excellence

<http://www.accessexcellence.org>

Entering 'bioethics' into the search brings up many useful pages related to teaching bioethics.

Bioethics.net

<http://www.bioethics.net/>

<http://highschoolbioethics.org/>

Site of the American Journal of Bioethics/University of Pennsylvania. Updated news stories, bioethics background, and an active bioethics blog. This site also provides a high school bioethics resource.

EIBE Units

<http://www.eibe.info/>

Collections of classroom activities from the European Institute for Biotechnology Education, including a variety of experimental protocols, practical activities, role-plays, information and debates. The units are very clearly written, provide information at an appropriate level, and are well-illustrated. Both biotechnology and bioethics units are featured.

Ethics Updates - University of San Diego

<http://ethics.sandiego.edu>

Ethics Updates is designed primarily to be used by ethics instructors and their students. It is intended to provide updates on current literature, both popular and professional, that relates to ethics. It provides classic texts, case studies, background on theory and helpful resources such as ethics lecture videos.

Genetic Science Learning Center

<http://gslc.genetics.utah.edu/>

Many helpful resources on stem cells, genetic disorders, and ethical issues.

Howard Hughes Medical Center

<http://www.hhmi.org/research/bioethics/>

A web page and companion free DVD on bioethics. Features research ethics, animal research scientific integrity, and genetic alteration. The HHMI web site also has additional resources related to topics such as stem cells.

The High School Human Genome Project at the

University of Washington

[http://hshgp.genome.washington.edu/teacher_resources/](http://hshgp.genome.washington.edu/teacher_resources/modules.htm)

[modules.htm](http://hshgp.genome.washington.edu/teacher_resources/modules.htm). Provides a case study and a bioethical decision-making template. The Ethics curriculum module, which can be downloaded, allows students to explore ethical issues related to the genetic testing of Huntington's disease.

Human Genome Project Information - Ethical, Legal and Social Issues

<http://www.ornl.gov/hgmis/elsi/elsi.html>

The U.S. Department of Energy (DOE) and the National Institutes of Health (NIH) have devoted 3% to 5% of their annual Human Genome Project (HGP) budgets toward studying the ethical, legal, and social issues (ELSI) surrounding availability of genetic information. This represents the world's largest bioethics program, which has become a model for ELSI programs around the world.

Kennedy Institute

<http://www.georgetown.edu/research/kie/>

<http://highschoolbioethics.georgetown.edu/>

The Kennedy Institute is a teaching and research center offering ethical perspectives on major policy issues. It is the largest university based group of faculty members in the world devoted to research and teaching in biomedical ethics and other areas of applied ethics. The Institute also houses the most extensive library of ethics in the world, the National Reference Center for Bioethics Literature; produces bibliographic citations relating to bioethics for the online databases at the National Library of Medicine; and conducts regular seminars and courses in bioethics. The high school bioethics project has developed case studies on topics of interest to secondary school teachers and students.

National Center for Case Study Teaching in Science

<http://ublib.buffalo.edu/libraries/projects/cases/case.html>

The University of Buffalo has many examples of case study teaching in science - try a search with 'ethics'

NIH Bioethics Resources on the web

<http://www.nih.gov/sigs/bioethics/>

A great place to start for background information and various positions on a variety of bioethical issues.

Online Ethics Center for Science and Engineering

<http://onlineethics.org/index.html>

This site contains a wide variety of useful resources and links on research ethics, moral leaders in science and engineering, women and minorities in science and engineering, and codes of ethics. Especially useful are the links for precollege curriculum, ethics in the biological sciences (which features a unit on the ethics of animals and research) and the case studies involving research ethics.

President's Council on Bioethics

<http://www.bioethics.gov>

Your Genes, Your Choices: Exploring the Issues Raised by Genetic Research.

<http://ehrweb.aaas.org/ehr/books/index.html>

This resource is published online by the American Association for the Advancement of Science and features 8 case scenarios easily adapted to a classroom setting.

Wellcome Trust

<http://www.wellcome.ac.uk/>

The mission of the Trust is 'to foster and promote research with the aim of improving human and animal health'. Reflecting the profound impact today's research will have on society, the Wellcome Trust also seeks to raise awareness of the medical, ethical and social implications of research and promote dialogue between scientists, the public and policy makers. *LabNotes* provides teachers with up-to-date information on research findings in biomedicine and the social and ethical implications of this research. The Wellcome Trust commissioned the Institute of Education, London, to find out the importance teachers attached to the study of socio scientific issues and how they went about tackling such issues. A summary of the research — '*Valuable Lessons: Engaging with the social context of science in schools*' - was published in July 2001.

Additional Bioethics Resources Online

Socratic Seminar Websites:

<http://www.paideia.org>

The National Paideia Center has several excellent resources for teaching using seminars. We especially recommend their "Active Thinking Through Dialogue" publication, available to order online.

http://www.studyguide.org/socratic_seminar.htm

Description of Socratic Seminar, pre-seminar activities, discussion of difference between debate and dialogues, student guidelines, and seminar rubric.

<http://www.middleweb.com/Socratic.html>

Lynda Tredway.

Educational Leadership. Discussion about how to engage middle level students in intellectual discourse through Socratic Seminars. Connects students to ethics by having them examine ethical quandaries and to develop moral principles.

<http://www.ncsu.edu/literacyjunction/html/tutorialssocratic.html>

A tutorial on Socratic Seminars with explanation organized around pre-seminar activities, during-seminar activities, and post-seminar activities, stressing the "essential question" approach.

Bioethics Films Available for Loan from the Kennedy Institute of Ethics, bioethics@georgetown.edu
<http://bioethics.georgetown.edu>

Commerical Films Dealing with Bioethics Topics
<http://bioethics.georgetown.edu/hsbioethics/>
Select bibliographies, then commercial films dealing with bioethics topics

Films

Beauchamp, T., and J. Childress, *The Principles of Biomedical Ethics*, Oxford University Press, 2001. 454 p.

This book has long been used as an introduction to bioethics. It is based on the approach developed by Beauchamp and Childress entitled “principlism” and focuses on the principles of autonomy, beneficence, nonmaleficence, and justice. The book refers to cases (in an appendix) and provides a very good comparative overview of the varieties of philosophical theory and evaluates each theoretical approach from the authors’ perspective. The authors provide great references and address “moral character” (virtue theory); ethical theory is very much a part of this introduction. Used frequently at a college level.

Pence, Gregory, *Accounts of Cases that Have Shaped Medical Ethics, with Philosophical, Legal and Historical Backgrounds*, 3rd ed. Boston: McGraw-Hill, 2000. 509 p.

Dr. Pence examines some of the seminal cases in bioethics, those that advanced the development of the field and are still talked about and taught today. The legal and legislative process in bioethics and philosophical debate and perspectives may be covered on a variety of topics - removal of respirators, artificially provided nutrition and hydration, anencephalic infants, etc. Used both at high school and undergraduate level.

Veatch, Robert M., *The Basics of Bioethics*, 2nd ed. Upper Saddle River, New Jersey: Pearson Education, Inc., 2003. 205 p.

Dr. Veatch is a scholar at the Kennedy Institute of Ethics and is one of the early educators and ethicists in the field. He offers an introduction that addresses major issues in bioethics, but with a good dose of the ethical theory that grounds the discussion. The book contains descriptive text, history, case studies, definitions, some contemporary treatment of the issue, and a bibliography for each chapter. The second edition has been updated to track developments in clinical medicine and ethical theory. This book has been used successfully in both elective high school courses on bioethics and at the undergraduate level.

Further Reading

Anthologies

- Beauchamp, Tom and Walters, LeRoy, eds. *Contemporary Issues in Bioethics*, 6th ed. Belmont, CA: Wadsworth, 2003. 800 p. [ISBN 0-534-58441-1]
- Mappes, Thomas A. and DeGrazia, David, eds. *Biomedical Ethics*, 5th ed. Boston: McGraw-Hill, 2001. 707 p. [ISBN 0-07-230365-4]
- Munson, Ronald, ed. *Intervention and Reflection: Basic Issues in Medical Ethics*, 6th ed. Belmont, CA: Wadsworth/Thompson Learning, 2000. 891 p. [ISBN 0-534-52039-1]
- Shannon, Thomas A. *An Introduction to Bioethics*. Mahwah, NJ: Paulist Press, c1987, 1997. 189p.
- Steinbock, Bonnie; Arras, John D.; and London, Alex John. *Ethical Issues in Modern Medicine*, 6th ed. Boston: McGraw-Hill, 2003. 830 p. [ISBN 0-7674-2016-0]
- Teays, Wanda and Purdy, Laura M., eds. *Bioethics, Justice, and Health Care*. Belmont, CA: Wadsworth/Thomson Learning, 2001. 683 p. [ISBN 0-534-50828-6]

Other Useful resources

- Crigger, Bette-Jane, ed. *Cases in Bioethics: Selections from the Hastings Center Report*. Third Edition. New York: St. Martin's Press, 1998. 295 p.
- Levine, Carol, ed. *Taking Sides: Clashing Views on Controversial Bioethical Issues*. Ninth Edition. Guilford, CT: McGraw-Hill/Duskin, 2001. 380 p.
- Reich, Warren Thomas, ed. *Encyclopedia of Bioethics*. Revised Edition. New York: Simon Schuster Macmillan, 1995.

Journals

- Hastings Center Report (bimonthly journal) published by the Hastings Center, Route 9D, Garrison, NY 10524; tel. 845-424-4040; fax. 845-424-4545. Short, scholarly articles; case studies and commentaries
- Journal of Bioethics
Online at <http://www.bioethics.net/>

- AAAS Project 2061: Science for All Americans (1989)
Oxford Publishing.
- Campbell C, Donnelly S, Jennings B, and Nolan K. (1990).
New Choices, New Responsibilities: Ethical Issues in the Life Sciences. Briarcliff Manor, N.Y.: Hastings Center.
- Carter, Stephen (1996). *Integrity*, Basic Books, HarperCollins.
- Macrina, Francis (2000). *Scientific Integrity: An Introductory Text with Cases*, ASM Press, 2000. (Excerpt from Chapter 2: Ethics and the Scientist, Fuchs and Macrina)
- National Research Council, National Science Education Standards (1996). National Academy Press, 1996.
- Paul, R., and Elder, L. (2003). *Ethical Reasoning*, The Foundation for Critical Thinking, 2003.
- Pomery, John (1996). *Thinking Aporetically About Self and Community*, presented at the Ackerman Center for Democratic Citizenship.
- Rest, J.R. (1984). *The major components of morality*. In W. Kurtines & J. Gewirtz (Eds.) *Morality, moral behavior, and moral development* (pp. 24-40). New York: Wiley.
- Veatch B. (2003). *The Basics of Bioethics*, 2nd edition, Prentice Hall, Upper Saddle River, NJ.
- Wertz, Dorothy (1996). *Ethics: A Primer for Non-Ethicists*. The Genetics Resource. Volume 10, No. 1.
- Zeidler, D, Sadler T, Simmons M, Howes E. (2005). Beyond STS: A Research-Based Framework for Socioscientific Issues Education. *Science Education* 89:357– 377.



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