

PELLISSIPPI STATE COMMUNITY COLLEGE
MASTER SYLLABUS

SPECIAL TOPICS IN BIOLOGY
History of Medicine
BIOL 1000

Class Hours: 0.0

Credit Hours: 3.0

Lab Hours: 0-4

Date Revised: Fall 2011

Catalog Course Description:

Study and discussion of a selected topic in biology. Content will vary, as this course is a means for classes to explore certain biology-related topics in depth. Classes may be taught by visiting professors. May be repeated for credit when a different topic is taught.

NOTE: This is an online elective course designed for nursing and pre-nursing students to further knowledge about the history of medicine from Ancient Greece to modern day. Topics covered include Hippocrates, humoral medicine, human dissection and anatomy, surgical advances including anesthesia and antisepsis, Pasteur's germ theory, advances in women's medicine including childbirth fever and The Pill, diagnostic advances including X-ray and CT's, treatment advancements including vaccines and antibiotics, the public health campaign for eradication of small pox and the mapping of the human genome. Emphasis will be on the discoverers and the scientific method used in the medical advancements.

Entry Level Standards:

The student should have a good basic understanding of science and an interest in studying a topic in depth. The student should also be able to write well, as the course may involve written papers.

Prerequisites:

Consent of instructor

Textbook(s) and Other Course Materials:

Required: Adler, Robert E.. Medical Firsts From Hippocrates to the Human Genome. John Wiley and Sons, Inc. 2004. ISBN 0-471-40175-7.

I. Week/Unit/Topic Basis:

- 1 Introduction, Hippocrates, Herophilus and Erasistratus (Introduction, Ch. 1 & 2)
- 2 Varro and Soranus (Ch. 3 & 4)
- 3 Galen and Abu Bakr al-Razi (Ch. 5 & 6)
- 4 Ibn al-Nafis and Paracelsus (Ch. 7 & 8)
- 5 Andreas Vesalius and Johann Weyer (Ch. 9 & 10)
- 6 William Harvey and Edward Jenner (Ch. 11 & 12)

- 7 Anesthesia and Antisepsis (Ch. 13 & 14)
- 8 Snow and Pasteur's Germ Theory (Ch. 15 & 16)
- 9 Roentgen' X-ray and Sigmond Freud (Ch. 17 &18)
- 10 Ivanovsky'sViruses and Fleming's Penicillin (Ch. 19 &20)
- 11 Margaret Sanger's Pill and Organ Transplantation (Ch. 21 &22)
- 12 In Vitro Fertilization and Eradication of Small Pox (Ch. 23 &24)
- 13 Mad Cow Disease and the Immune System (Ch. 25 &26)
- 14 Human Genome and the Future (Ch. 27 &28)
- 15 Final Exam

II. Course Objectives*:

- A. Develop an understanding of a particular aspect of biology. I.5
- B. Develop an understanding of technological advances of a particular aspect of biology. I.5, V
- C. Know how to read a scientific paper critically. I.2, III.2
- D. Develop critical thinking skills and problem solving skills to review and analyze information relating to the selected topic. III.1, III.2
- E. Develop an appreciation of the societal issues involved with the special topic, when appropriate. IV

*Roman numerals after course objectives reference TBR's general education goals.

III. Instructional Processes*:

Students will:

- 1. Engage in teamwork to facilitate cooperative learning. *Active Learning Strategies*
- 2. Approach problems both mathematically and verbally. *Communication Outcome, Problem Solving and Decision Making Outcome, Numerical Literacy Outcome*
- 3. Use critical thinking skills to solve problems. This will be done in groups to promote idea sharing. *Problem Solving and Decision Making Outcome, Active Learning Strategies*
- 4. Use critical thinking skills to evaluate scientific literature. *Communication Outcome, Information Literacy Outcome*
- 5. Learn about appropriate technologies. *Technological Literacy Outcome*
- 6. Gain the knowledge to have a foundation in the selected topic, assisting the student in moving on to upper level science courses and eventually to the job. This will be done by a variety of means, including listening to lectures, experimenting (when appropriate), participating in field trips, viewing video tapes and video discs, and participating in group

discussions. *Communication Outcome, Personal Development Outcome, Numerical Literacy Outcome, Transitional Strategies, Active Learning Strategies*

7. Use discussions to evaluate the societal implications involved with the special topic.
Personal Development Outcome, Cultural Diversity and Social Adaptation Outcome

*Strategies and outcomes listed after instructional processes reference TBRs goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

Upon successful completion of this course, the student should be able to:

1. Discuss basic and advanced facts associated with the selected topic. A
2. Discuss implications for society and for the future based on information regarding the selected topic. A, B, E
3. Understand the manner in which the special topic fits into the overall picture of biology. A,D
4. Read a scientific paper. C, D
5. Write a scientific paper. C, D
6. Discuss and use (depending on the course) appropriate technologies. A, B

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Evaluation Procedures:

Three papers: Disease Paper—100 pts
Historical Person paper- 100 pts
Scientific article paper—50 pts
Discovery powerpoint – 100 pts

Three exams: Unit 1 : Intro – Ch. 8—100pts
Unit 2: Ch 9-18—100 pts
Unit 3: Ch 19-28—100 pts

Discussion Board: 150pts

B. Grading Scale:

90-100%	A	720-800 pts
80-89%	B	640-719 pts
70-79%	C	560-639pts
60-69%	D	480-559pts
below 60%	F	below 480 pts

VI. Policies:

A. Attendance Policy:

Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of the Learning Division, may have requirements that are more stringent. In very specific circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of the Learning Division.

B. Academic Dishonesty:

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:

- Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.
- Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
- Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented as one's own work.
- Taking an exam for another student.

C. Accommodations for disabilities:

Students who need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127, 132, 134, 135, 131 or by phone: 539-7153 or TTY 694-6429. More information is available at www.pstcc.edu/departments/swd/.

D. Other Policies:

All discussion board postings must be respectful and encouraging. No derogatory remarks allowed. If you have questions about your grade or a graded test or paper question, email the instructor with those questions and do not post on the discussion board.

Papers should be written using APA style.