

BIO 122-004: HUMAN BIOLOGY

Spring 2006: MTR at 8:30 AM [Series A]

Room: Albertus Magnus 135

Credit Hours: 3.00

PROVIDENCE
COLLEGE**INSTRUCTOR:**

Name: Fr. Nicanor Pier Giorgio Austriaco, O.P., Ph.D.

Office: Hickey 252

Laboratory: Albertus Magnus 212

Phone: 401-865-1823 (office)
401-865-1906 (personal)

Email: naustria@providence.edu

If I am not teaching, I am generally in my office or in my laboratory from 10:00 AM - 5:00 PM daily and am easily available with a prior appointment. To make an appointment, call me at 865-1906. You may also contact me via email. I will keep Tuesday afternoons from 2:00 PM to 4:30 PM for drop-in appointments. Please feel free to talk to me about any issue relating either to the course or to your life as a student here at Providence College.

**A PRAYER BEFORE STUDY
St. Thomas Aquinas, O.P.**

O God, Creator of all things, true source of light and wisdom, graciously let a ray of your light penetrate the darkness of my understanding. Give me a keen intellect, a retentive memory, and the ability to grasp things correctly and fundamentally. Give me the talent of being exact in my explanations and the ability to express myself with thoroughness and charm. Point out the beginning, direct the progress, and perfect my work. We ask you this through Jesus Christ Our Lord. Amen.

COURSE DESCRIPTION:

This course is designed for non-majors seeking to fulfill part of their natural science requirement. It will focus on the human body as an integrated organism of living systems composed of organs, tissues, and cells. Students should leave this course with a firm grasp of how their bodies normally function and how they can fail to function in disease.

REQUIRED TEXT:Sylvia S. Mader, *Human Biology*, 9th edn. (New York: McGraw Hill, 2005).

ISBN: 0-07-284186-9

For some of the lecture topics in the course, research or review articles will be assigned for reading. These will be uploaded to the ANGEL website for this course.

ACADEMIC EXPECTATIONS:

Your performance in this course will be based on three exams (90%) and a book review (10%). The final examination will NOT be comprehensive and will only cover the material in the third part of the course. Each exam will be worth 100 points and will consist of multiple choice, short answer, and essay questions. Note that you will be asked not only to recall pertinent information from the lectures and from the reading but also to synthesize the material and apply it to novel conceptual problems.

Every year, numerous books that treat biological topics raised in this course are published for a popular audience. To introduce you to this literature, please read ONE of the books listed below and write a short book review of 500-1000 words. Your book review should consist of two parts, a summary of the book followed by a short critique of the text.

Your critique should address the following questions, among others. **CONTENT:** What did you learn from the book? What was the most interesting scientific insight you gained from reading this book? **STYLE:** Was the author able to take the scientific material and make it intelligible for a popular audience? Were there sections that were confusing to read? **OVERALL ASSESSMENT:** Did you like the book? Why or why not? Would you recommend that your parents read this book? Why or why not?

Academic dishonesty, cheating, and plagiarism (“the stealing and passing off of the ideas or words of another as one’s own without crediting the source”) are not tolerated in the professional world of scientific and medical research and will not be tolerated in this class. For the first offense, the student will receive a zero for the examination. If a student aids another student during the exam, both parties will receive a zero. For the second offense, the student will receive an F for the course. Note that plagiarism on the book review – especially copying text from the Web without proper attribution – will result in a zero for the assignment. Please consult the current Providence College Undergraduate Catalogue for its statement on “Academic Honesty.”

LIST OF POSSIBLE BOOKS FOR THE BOOK REVIEW

Natalie Angier, *Woman: An Intimate Geography* (New York: Anchor Press, 2000).

Stephen S. Hall, *Merchants of Immortality: Chasing the Dream of Human Life Extension* (Boston: Houghton Mifflin, 2003).

Matt Ridley, *Genome* (New York: Harper Perennial, 2000).

Ellen Ruppel Shell, *The Hungry Gene: The Science of Fat and the Future of Thin* (New York: Atlantic Monthly Press, 2002).

Bryan Sykes, *The Seven Daughters of Eve* (New York: W.W. Norton & Company, 2002).

Robert A. Weinberg, *One Renegade Cell* (New York: Basic Books, 1999).

TENTATIVE SYLLABUS:

Topics	Reading from Mader's <i>Human Biology</i>
Introduction	Chapter 1
Chemistry of Life/Cell Biology	Chapters 2/3
The Human Organism as a Living System	Chapter 4
Cardiovascular System	Chapter 5/6
Digestive System	Chapter 7
EXAM I	February 23, 2006
Respiratory and Urinary Systems	Chapters 8/9
Skeletal and Muscular Systems	Chapters 10/11
Nervous and Sensory Systems	Chapters 12/13
Endocrine System	Chapter 14
Reproductive System and Development	Chapter 15/16
EXAM II	April 6, 2006
BOOK REVIEW DUE	April 10, 2006
Genetics and Genetic Counseling	Chapters 18/20
Immune System, STDs, and AIDS	Chapters 21/22/23
Cancer	Chapter 24
EXAM III	May 11, 2006