OBJECTIVES: This is the first of two biology core courses. Lectures will center on the following topics: theories of evolution and sources of variability; the fossil record; origin of life; a phylogenetic survey of organisms (from bacteria to higher vertebrates) and their anatomical, physiological, ecological, developmental, and behavioral adaptations.

LABORATORY/FIELD EXPERIENCE: BIOL 1105 Organisms and Evolution Lab is a required corequisite.

READINGS: The class textbooks will be Biology 7th edition by Campbell Reece and Mitchell.

EVALUATION: Student's performance will be determined by a series of in-class exams and quizzes. A separate laboratory grade that will be based on lab reports and lab practical exams will be given for BIOL 1105.
BIOL 1105
Organisms and Evolution Lab
001 M 11:25AM-2:10PM(Burleigh, D)
002 T 8:30AM-11:15AM (Staff)
003 T 2:25PM-5:10PM (Staff)
004 W 11:25AM-2:10PM(Burleigh, D)
005 W 2:25PM-5:10PM(Staff)
006 R 11:25AM-2:10PM(Staff)
Spring 2006

OBJECTIVES: Corequisite to BIOL 1100 (Organisms and Evolution), weekly exercises aim to illustrate and amplify the lecture material in an investigatory format as much as possible, so that students can be introduced to a scientist's attitude toward hypothesis testing, data interpretation and report writing.

COURSE CONTENT: Individual exercises vary from year to year but usually include: (1) examining and interpreting fossils, (2) quantitatively measuring the range of variation of some species characteristics, (3), modeling the process of natural selection, (4) observing and asking questions about live specimens representing phyla/divisions of all six kingdoms, noting both their unities and diversities, (5) making a field survey of botanical species, (6) dissecting some preserved animal specimens to compare their digestive systems, and (7) measuring thermoregulatory capabilities in some live vertebrates.

PREREQUISITES: BIOL 1100 is a corequisite

CLASS FORMAT: Lab sections of roughly 20 students

READINGS: A manual is available in the bookstore.

EVALUATION: In all sections at least three formal reports will be graded. There is a lab practical at the end of the term.
OBJECTIVES: The course surveys the basic anatomy and physiology of the human body in order that students requiring a foundation in human biology be prepared for further coursework in related fields outside of core biology.

COURSE CONTENT: Students will learn the basic anatomy and physiology of the eleven human body organ systems, their interrelationships and their path physiologies, in order that they acquire a sound survey of how the human organism functions.

PREREQUISITES: High school biology and chemistry

ATTENDANCE: Mandatory


EVALUATION: Chapter tests, attendance and participation. Tests are emphasized. Chapter tests are given in lieu of a midterm or final.
BIOL 1200
Cells & Molecules
001 MWF 9:55AM-11:10AM (Straub, P)
002 MW 3:35PM-5:25PM (Staff)
003 MWF 12:45PM-2:00PM (York, K)
Spring 2006

OBJECTIVES: Second half of year course in General Biology for science and non-science majors.

COURSE CONTENT: Biological Molecules, Cell Structure and Function, Metabolism, General and Molecular Genetics

PREREQUISITES: BIOL 1100 (Organisms & Evolution), CHEM I (Chem 2100) and CHEM II 2120 (can be taken concurrently)

ATTENDANCE: Required

CLASS FORMAT: Lecture

READINGS: Text: Biology (7th edition) Campbell. Optional text study guide for Biology (Fred Campbell

LABORATORY/FIELD EXPERIENCE: Weekly Laboratory Required. (BIOL 1205)

EVALUATION: 3 Major Tests, Cumulative Final and Quizzes
BIOL 1205
Cells & Molecules Laboratory
001 M 2:10PM-4:55PM (Straub, P)
002 T 8:30AM-11:15AM (Baranowski, E)
003 T 11:25AM-2:10PM (Baranowski, E)
004 W 11:25AM-2:10PM (Hutchison, R)
005 R 8:30AM-11:15AM (Baranowski, E)
006 R 11:25AM-2:10PM (Baranowski, E)
Spring 2006

OBJECTIVES: Laboratory component of cells and molecules course.

COURSE CONTENT: Exercises exploring biological molecule cells structure and function, metabolism and enzyme activity.

PREREQUISITES: BIOL 1100 (Organisms and Evolution) with a grade of “C” or better CHEM I 2100, CHEM II 2120 can be taken concurrently.

ATTENDANCE: Required

CLASS FORMAT: Laboratory

READINGS: Cells and Molecules Laboratory manual and Biology 7th edition, Campbell.

PAPERS/PROJECTS: Formal laboratory reports on two or three exercises.

EVALUATION: Exercises, laboratory reports, laboratory final, and participation in the lab.
OBJECTIVES: A lecture-discussion course introducing the basic principles of ecology.

COURSE CONTENT: This course is designed for students who have completed one year of basic biology (Organisms & Evolution and Cells & Molecules or their equivalents), and considers biological organization at the organismal population, community, and ecosystem levels. Topics to be discussed will include interactions of physical and biological factors with the organism, energy flow, nutrient cycles, population structure and growth and concepts of community ecology. In addition to presenting the basic principles of ecology, lectures will also consider current applications of ecological theory (e.g., biodiversity, conservation biology).

PREREQUISITES: Organism and Evolution and Cell and Molecules Not open to students who have taken ENVL 2200.

ATTENDANCE: Expected

CLASS FORMAT: Lecture/Discussion

READING: TBA (One Textbook)

EVALUATION: Grading will be based on 3 in class exams and 1 or 2 in class quizzes.
BIOL 2110
Genetics
001 MWF 9:55AM-11:10AM (Sedia, E)
002 MWF 11:20AM-12:35PM (Harmer, T)
Q2
Spring 2006

OBJECTIVES: This is the 3rd core course required of all biology majors. Goal is mastery of basic Mendelian and molecular genetics.

COURSE CONTENT: Mendelian and molecular Genetics with examples from bacteria, insects, fungi, plants, and humans.

PREREQUISITES: BIOL 1100 and BIOL 1105; BIOL 1200, and 1205,CHEM 2110 and CHEM 2115, CHEM 2120 and CHEM 2125, and Math 1100.

ATTENDANCE: Highly Recommended

CLASS FORMAT: Lecture/Discussion/Problems

LABORATORY/FIELD: Co-Requisite: BIOL 2115, Genetics Laboratory.

READINGS: Textbook to be announced

EVALUATION: Lab grade from BIOL 2115 25%, Lecture Homework, Quizzes and Exams 75%.
OBJECTIVES: Hands-on experience in genetics.

COURSE CONTENT: Problem solving, laboratory exercises using *Drosophila* (Fruit Flies), bacteria and man. Recombinant DNA exercises.

PREREQUISITES: BIOL 1200 (Cells & Molecules) and Corequisite BIOL 2110 (Genetics Lecture).

ATTENDANCE: Required.

CLASS FORMAT: Laboratory.

READINGS: Lab Manual

PAPERS/PROJECTS: Lab reports and quizzes; Problems in Lab manual.

EVALUATION: Attendance and participation, lab report, quizzes, problems, and lab practical exam. Final grade is submitted to lecture (BIOL 2100) instructor, and comprises 25% of lecture grade.
OBJECTIVES: This course explores the various systems of the body and their role in maintaining normal life. The cardiovascular, nervous, musculoskeletal, respiratory, digestive, urinary, reproductive, and endocrine systems are examined from their cellular makeup to their interactions with each other. Practical and clinical aspects are presented to help underscore the relevance of this subject. Each cell, tissue, organ, and system must be working properly and in harmony with each other for an organism to survive.

The laboratory portion of the course is designed to illustrate many of the physiologic principles learned in the classroom. Some experiments may involve the use of live animals. Federal laboratory guidelines are closely followed in the handling, anesthesia, and euthanasia of all animals. In addition, instruction will be given on the proper handling of animals in the laboratory. Generally labs cannot be made up and successful completion of the laboratory portion of the course is necessary to receive a passing grade. If laboratory attendance will be a problem or if there is any objection to the use of laboratory animals this course should not be taken.

PREREQUISITES: BIOL 1100/1105; BIOL 1200/1205; CHEM 2110/2115 and CHEM 2120/2125. Although not required, an anatomy course is very helpful. It is difficult to separate structure (anatomy) from function (physiology).

OBJECTIVES: The purpose of this course is to provide an introduction to the gross structure of the human body. Specific objectives: To correlate modern information from cell biology and microanatomy with gross anatomy to provide transition from introductory courses in biology. To understand the basic systems of the body in terms of their structure and interconnections. To learn the “language” of anatomy. To apply knowledge gained of the structural framework of the human body so that learning will be more meaningful in terms of preparing for allied health fields.

COURSE CONTENT: This course is a comprehensive introduction to the developmental and gross anatomy of the human body that is designed for students planning to continue in the allied health fields. Each section of the course will be devoted to an organ system, although the integration and interrelationships of these systems will be stressed. The required laboratory will include dissections of the cat and other specimens to illustrate structures discussed in class. Histological demonstrations will provide insight on the underlying form of gross anatomical structures. Dissections along with class lecture will form the basis for understanding the basic anatomical structures of humans.

PREREQUISITES: BIOL 1100, 1200 or equivalent, CHEM 2110 or equivalent

ATTENDANCE: Expected at all sessions, and required in laboratory.

CLASS FORMAT: Lecture, discussions, and review sessions.

LABORATORY: Required dissections of cats and other animal structures/organs.

READINGS: Human Anatomy, Van de Graaff (Required), Laboratory Book (Required) and Supplemental coloring books, atlases, etc. (Recommended)

REQUIREMENTS: A student must make a “C” or better in this course to move on to the Physical Therapy program. Keep up with the assigned readings, Complete all assigned homework on time, Have a grade for all quizzes, lab practicals exams administered. Attendance in laboratory and Complete all assigned laboratory dissections and work sheets.

EVALUATION: Four examinations based on readings and the lectures, Announced and unannounced quizzes during lecture. Occasional homework; Laboratory practical tests; Laboratory quizzes; Laboratory dissections/homework will be evaluated and Laboratory attendance.Lecture - Exams and quizzes 75%, Lab Practicals, dissections, and quizzes 25%. Although it may appear that one could choose not to do the labs, the student MUST complete all lab assignments, practicals, and quizzes to pass the course.

Failure to participate in laboratory work will result in an “f” for the course; cheating and plagiarism will result in an “f” for the course.
OBJECTIVES: The purpose of this laboratory is to provide an introduction to the gross structure of the human body in combination with BIOL 2180. Specific objectives: To correlate modern information from cell biology and microanatomy with gross anatomy to provide transition from introductory courses in biology. To understand the basic systems of the body in terms of their structure and interconnections. To learn the “language” of anatomy. To apply knowledge gained of the structural framework of the human body so that learning will be more meaningful in terms of preparing for allied health fields.

COURSE CONTENT: This required laboratory course is designed to accompany BIOL 2180 lecture. The laboratory includes dissections of the cat and other specimens to illustrate specimens discussed in BIOL 2180. Histological specimens will also be examined. See course description for BIOL 2180 for more information. Students MUST enroll and complete BIOL 2180 and BIOL 2185 in the same semester.

COREQUISITE: BIOL 2180 must be completed in the same semester

PREREQUISITES: BIOL 1100, 1200 or equivalent, CHEM 2110 or equivalent.

ATTENDANCE: Required as part of the grade of this course.

CLASS FORMAT: Dissections, examination of prosections and histological mounts

READINGS: Human Anatomy, Van de Graaff (Required); Laboratory Book (Required); Supplemental coloring books, and atlases, etc. (Recommended)

REQUIREMENTS: Attendance and participation, keep up with the assigned readings, complete all assigned dissections on time. Have a grade for all quizzes and practicals administered.

EVALUATION: Laboratory practical tests, announced and unannounced quizzes, evaluation of dissections homework and laboratory attendance & participation. A grade of “P” or “F” can be earned for this laboratory. The actual number grade earned in the above activities will comprise 25% of your BIOL 2180 grade. Although it may appear that one could choose not to do the labs, the student MUST complete all lab assignments, practicals, and quizzes to pass the course. Failure to participate in laboratory work will result in an “F” for the course. Failure to complete BIOL 2185 in the same semester will result in an “F” for BIOL 2180. Cheating and plagiarism will result in an “F” for the course.
OBJECTIVES: Upon completion of the course, students should be able: To describe how bone forms and how developmental anomalies occur in Humans. To identify unknown human bones to the correct element and side of the body. To identify human bones as opposed to those of other animals. To identify the “race” sex, and age of a human skeleton. To identify disease based on human skeletal evidence. To identify changes in bone due to disease congenital abnormalities, injuries, taphonomy, or modifications (including surgery).

COURSE CONTENT: This course is an introduction to the study of human bones with the emphasis on their use of archaeological analysis and criminal investigations. Laboratory work will focus on bone identification and the identification of information useful in these investigations (e.g., age, sex, pathology). Cultural factors affecting the spread of disease and the appearance of bones will also be studied. The context of “race” as used in forensic science will be compared and contrasted with anthropological and biological concepts. Field techniques used by archeologists, physical anthropologists and forensic scientists will be studied. Finally, the application of forensic osteology to the human rights issues will be examined.

PREREQUISITES: One course in any of the following: ANTH, BIOL OR CRIM Not Open To Freshmen.

ATTENDANCE: Required

CLASS FORMAT: Laboratory with lectures/discussions included

READINGS: Texts to be announced; also, topical articles

EVALUATION: Laboratory Practices 25%, Quizzes 15%, Term Paper 25%, and Final 25%

Failure to participate in laboratories and in-class assignments or to turn homework in will result in an “F” for the course. Cheating or plagiarism will result in an “F” for the course.
BIOL 3130-001
Ornithology
Jack Connor
MWF 8:30AM-9:45AM
W2
Spring 2006

COURSE CONTENT: A field course and introduction to ornithology for BIOL, ENVL, and MARS majors. Students develop skills in identification and observation, study the behavior of local birds on campus and close-by), and investigate the evolution, behavior, anatomy, physiology, and ecology of birds. In particular, we examine the origin and diversification of birds, feathers, thermoregulation, aerodynamics, flight, and flightlessness, feeding and feeding adaptations, social behaviors, vocalisations, and other communication, migration and winter behaviors, courtship, nesting, parenting, and mating systems, and finally, biogeography, speciation, and conservation.

Note: This is a W2 course. Each student designs a study of bird behavior, observes and records the behaviors of birds in the field as the principal investigator of one project, contributes reports to fellow students’ projects, writes an interim report and a final report, and participates in in-class exercises and responses to the readings.

PREREQUISITES: BIOL 2100 and ENVL 2200 (not open to those with credit for GNM 2444)

ATTENDANCE: Expected, Factored into grade.

CLASS FORMAT: Lectures, discussions, and in-class exercises on Mondays and Wednesdays; field trip walks each Friday (weather permitting). If you own or can borrow a pair of binoculars, you will better enjoy this course.


EVALUATION: Two exams, field reports, “in-progress” research steps, project paper, and class readiness and participation.
OBJECTIVES: Developmental biology is an exciting field covering a diverse range of biological phenomena from egg and sperm formation to the process of aging. This course will center on a discussion of the concepts and events in the development of plants and animals. We will cover topics such as embryo development, early cell specialization and possible mechanisms controlling it, organ and pattern formation, growth, role of hormones in animals and plants, regeneration, metamorphosis, cancer, and aging. We will explore the questions and problems confronting biologists doing research in these areas.

PREREQUISITES: BIOL 1101, BIOL 1200 and CHEM 2112 Genetics BIOL 2110

CLASS FORMAT: The course format will include lectures, discussions and films.

READINGS: The textbook will be Developmental Biology, 7th ed. by Scott Gilbert.

LABORATORY/FIELD EXPERIENCE: There will be a weekly lab session. The exercises will be experimental and will include, for example, sea urchin fertilization and early development, early frog development, effects of alcohol on chick development, plant embryo development, and tadpole metamorphosis.

EVALUATION: 3 Exams and Quizzes - 75%, Lab Reports - 25%
BIOL 3180-001  
Plant Physiology  
Ronald Hutchison  
MWF 11:20AM-12:35PM  
Spring 2006

OBJECTIVES: A rigorous examination of how plants work.

COURSE CONTENT: This course examines the physiology, biochemistry and genetics of higher plants. Topics include: growth and development, structure / function relationships, water use, energy capture, photosynthesis, metabolism and reproduction.

PREREQUISITES: BIOL 2100, BIOL 2120 helpful.

ATTENDANCE: Expected

CLASS FORMAT: Lecture

LABORATORY/FIELDEXPERIENCE: Corequisite: BIOL 3181 Plant Physiology Lab

READINGS: Text assignments and current literature.

PAPER/PROJECTS: Current literature reports.

EVALUATION: Three hourly examinations.
OBJECTIVES: Laboratory experience in modern plant physiology.

COURSE CONTENT: This laboratory complements BIOL 3180, Plant Physiology and allows students to gain hands on experience with modern biological techniques including: plant tissue culture, electrophoresis, protein and enzyme extraction and analysis, DNA analysis.

PREREQUISITES: BIOL 2100, Co-requisite is BIOL 3180.

ATTENDANCE: Mandatory.

CLASS FORMAT: Laboratory.

LABORATORY/FIELDEXPERIENCE: Training in laboratory skill of modern plant physiology.

READINGS: Lab protocols and current literature.

PAPER/PROJECTS: Lab reports.

EVALUATION: Lab reports, notebook, quizzes.
PREREQUISITES: BIOL 1100 or GEOL 2101

COURSE CONTENT: The only direct evidence that evolution actually occurred is provided by the fossil record. This course will focus on one part of that record, the history of the vertebrates, or animals with backbones.

Vertebrate fossils are of particular interest to biologists because they reveal information about the origins, relationships, adaptations, and changing patterns of distribution through time of those organisms to which we are most closely related. To geologists they are important because of their bearing on such problems as paleogeography (continental drifting, land bridges, epicontinental seas, etc.), interpretation of depositional environments, climatic changes, stratigraphic correlation, and dating of rocks. This course will address all of these topics.

EXPERIENCE/LABORATORY/FIELD: Weekly laboratories or field trips will provide opportunities to study specimens, visit museums, and meet a variety of professional vertebrate paleontologists who will discuss their research. Lab topics will include: Types of fossil preservation and preparation of an actual specimen by each student; Vertebrate osteology and dentitions; how to interpret fragmentary evidence and reconstruct extinct animals from incomplete material; Surveys of a variety of groups, such as: (a) Fossil vertebrates of New Jersey, (b) South American mammals, (c) Dinosaurs, (d) Rodents, (e) Primates, (f) Hominids (us and our immediate ancestors)

Museums (both laboratories and exhibits) or fossil localities likely to be visited include: The Academy of Natural Sciences, Philadelphia; The American museum of Natural History (NYC); The U.S. National Museum (Smithsonian Institution, Washington D.C.); Princeton University; The Sewell Mark pit (N.J.) - a site currently being worked by the N.J. State museum Calvert Cliffs (Md.)

TEXT: Colbert - Evolution of the Vertebrates. There will be a number of readings on reserve in the library in addition.
OBJECTIVES: An introductory course that focuses on the chemistry of living organisms. Topics include amino acids and proteins; enzyme catalysis and kinetics and metabolism which covers both anabolic and catabolic pathways. The mechanisms for regulation are addressed.

PREREQUISITES: Prerequisites CHEM 2120 and BIOL 1200.
BIOL 3300-001
Invertebrate Zoology
Richard Hager
TR 6:00PM - 7:50PM
W 2:10PM - 4:55PM
SPRING 2006

OBJECTIVE: An introduction to the invertebrate members of the animal kingdom. Lectures will present a phylogenetic survey of the invertebrates with emphasis on functional anatomy, natural history, and evolutionary affinities of the various groups. Audio-visual aids will be used to supplement lecture material.

PREREQUISITES: BIOL 1100 or MARS 2201

READINGS: Invertebrates, Brusca and Brusca Invertebrates, Zoology: A Laboratory Manual, Wallace and Taylor

LABORATORY /FIELD EXPERIENCE: Weekly laboratory exercises will familiarize students with the practical anatomy of the major invertebrate groups. Live material will be used, when possible, for behavioral and physiological observations. Occasional field trips will be directed towards field natural history and identification of local specimens.

EVALUATION: Grading will be based on 3 hour exams, 3 quizzes and a laboratory notebook. This course is design to introduce the invertebrates to BIOL, ENVL, and MARS majors.
OBJECTIVES AND COURSE CONTENT: A course designed to familiarize the student with aspects of the five extant classes of fishes, with emphasis on taxonomy, ecology, and behavior. Extensive identification of east coast U.S. freshwater and marine fishes in the laboratory sessions will familiarize the student with some of the local and more common species, with external fish anatomy, and with some of the pertinent literature in the field. Indoor laboratory work early in the semester will be supplemented by field trips later in the semester. Two reports are required: (1) One on the species collected on our trips and (2) One on a species or genus or family of your and instructor’s choice.

PREREQUISITES: BIOL 1100 and one BIOL field course or equivalent, or see instructor.

ATTENDANCE: Required and recorded for each meeting.

CLASS FORMAT: Standard faculty lecturing.

LABORATORY/FIELD EXPERIENCE: Laboratory exercises will be a major part of the course. Field trips are required to study local fishes in their natural habitats. Extensive identification in the laboratory of specimens collected, and of other species.

READINGS: To be assigned; two texts and two field guides required.

PAPERS/PROJECTS: Two thorough, well-organized, and well written reports are required.

EVALUATION: Based on a maximum possible total of 1,000 points, as follows: Lecture Test 1 = (200 points); Final Lecture Exam = (200 points); Laboratory practical exam = (200 points); Attendance, Attitude = (200 points); Report 1 = (100 points); Report 2 = (100 Points)
BIOL 3350-001  
Biochemical Lab Methods  
Kelly Keenan  
TR 12:30PM-4:20PM  
W2  
Spring 2006

OBJECTIVES: A project-based laboratory course with the goal of introducing the student to the research process and to teach biochemical laboratory methods.

PREREQUISITES: BIOL 1200, CHEM 2120, and BIOL/CHEM3250

ATTENDANCE: Mandatory

CLASS FORMAT: Two labs a week with no lecture.

EVALUATION: based on lab reports, a rough and final draft are required. It will include a service learning component.
OBJECTIVES: A one-credit preview of summer courses MARS 3416, and BIOL 3416 which includes field and boat work in Florida waters (from Tropical hammocks to coral reefs of the Florida Keys).

*NOTE: A passing grade in MARS 3415 does not guarantee placement in MARS 3416 which is based on total college credits earned and instructor evaluation.

COURSE CONTENT: An overview of marine biological environments in Florida coastal environments, discussion of field, lab, and boat procedures.

PREREQUISITES: Either MARS 1100 OR MARS 2201 or at least 8 credits of biological courses.

ATTENDANCE: Required.

CLASS FORMAT: Lecture.

EVALUATION: Based on one test.
BIOL 3504-001
Conservation Biology
Daniel Hernandez
MWF 9:55AM–11:10PM
Spring 2006

OBJECTIVES: Explore origins, development, and current status of conservation biology. Through readings, writing assignments, students will examine current threats to biodiversity, alternative views of biodiversity & biological habitats, and the practical application of ecological and genetic principles to maintaining biodiversity in specific ecosystems and conserving threatened and angered species.

PREREQUISITES: ENVL 2100 or equivalent; or permission of instructor.

ATTENDANCE: Required.

CLASS FORMAT: Lectures, class discussion, and student presentations at the end of semester.

LABORATORY/FIELD EXPERIENCE: Independent projects and local field trips.


EVALUATION: Exam (midterm and comprehensive final) and independent project.
OBJECTIVES: The objective of the course is to provide a more in depth examination of metabolism with an emphasis on clinical cases.

COURSE CONTENT: Advanced Biochemistry provides a more in depth examination of the protein function, mechanisms of enzyme action and carbohydrate metabolism themes discussed in the Biochemistry course. The course also explores additional topics such as lipid, amino acid and protein metabolism that are relevant to the student going onto graduate or professional schools. The experimental support for our current understanding of metabolism and cell function will be emphasized. Clinical cases and selected papers from the scientific literature will be discussed.

PREREQUISITES: BIOL/CHEM 3250 (Biochemistry) Minimum grade of C

ATTENDANCE: Not mandatory but essential. While your old biochemistry textbook serves as a good reference source, this course relies heavily on instructor handouts and class discussion of papers and case studies.

CLASS FORMAT: Lecture

LABORATORY/FIELD EXPERIENCE: None

READINGS: Scientific papers and clinical case studies

PAPERS/PROJECTS: None

EVALUATION: Examinations
OBJECTIVE: To thoroughly understand how all of the body systems function and interact to maintain health.

COURSE CONTENT: Cellular physiology and energy metabolism will be studied first to provide a solid foundation for understanding the various organ systems. Particular attention will be paid to muscle physiology, cardiovascular function, pulmonary function and renal physiology. In addition the endocrine, blood, immune and digestive systems will be explored.

PREREQUISITES: BIOL 2150, 2151, 2180 or BIOL 3150

ATTENDANCE: Suggested (Exams based on class notes)

CLASS FORMAT: Lecture

LABORATORY/FIELD: None


PAPERS/PROJECTS: One paper for the semester

EVALUATION: Homework problems, paper, hourly exams and final
OBJECTIVES: To expose students to a variety of speakers presenting their research, in order to increase awareness of the diversity of the biological sciences, and of research, graduate, and professional opportunities available.

COURSE CONTENT: Topics covered span the breadth of the biological sciences, from botany to zoology, from ecology to psychopharmacology, from molecular genetics to paleobiology.

PREREQUISITES: None.

ATTENDANCE: Attendance is required.

CLASS FORMAT: Lecture/Seminar

READINGS: None required.

PAPERS/PROJECTS: Each student will prepare an abstract of one of the seminars presented during the semester (250 words).

LABORATORY/FIELD EXPERIENCE: Does not include lab work.

EVALUATION: There are no grades assigned for Biology seminar. However, this course is required for graduation by Biology majors, and will not appear on the transcript unless the above requirements are met.