

El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA	<u>Biology</u>
COURSE RUBRIC AND NUMBER	<u>BIOL 1409</u>
COURSE TITLE	<u>Human Biology</u>
COURSE CREDIT HOURS	<u> 4 3 : 2</u> Credits Lec Lab

I. Catalog Description

Provides a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. **THIS COURSE IS NOT INTENDED FOR SCIENCE MAJORS.**
Prerequisite: BIOL 1408. (3:2). Lab fee.

II. Course Objectives**LECTURE AND LABORATORY**

The objectives for the lecture and lab are essentially the same. The lecture stresses the theoretical aspects of human anatomy and physiology while the laboratory focuses on applications with a significant “hands-on” component.

- A. Unit I. From Cells to Organ Systems: Tissues
1. Use correct anatomical terminology.
 2. Explain the basic concept of homeostasis and demonstrate how this key concept is the most important unifying theme of the body systems.
 3. Describe basic chemical and physical principles that are of particular importance in anatomy and physiology.
- B. Unit II. The Skeletal System and The Muscular System
1. Be able to discuss bone development.
 2. Describe the various functions of the skeletal system.
 3. Disorders of the skeletal system.
 4. Be able to distinguish between the different types of muscle tissue.
 5. Be able to discuss the function and differences between the different types of muscles.
 6. Disorders of the Muscular system.
- C. Unit III. Cardiovascular, Lymphatic and Immune Systems
1. Know the components and functions of blood.
 2. Have knowledge of the structure and function of the heart and major blood vessels of the body.
 3. Cardiovascular disorders.
 4. Be able to explain the basic functions of the Lymphatic and Immunity Systems.
 5. Be able to apply physiological concepts to: Tissue rejection and other disorders of the Immune System.

- D. Unit IV. The Respiratory System
1. Be able to discuss the anatomy and physiology of the upper and lower respiratory tracts.
 2. Be able to discuss the physiology of breathing.
 3. Disorders of the Respiratory System.
- E. Unit V. The Nervous System and the Endocrine System
1. Be able to discuss the anatomy and physiology of the various part of the Nervous System.
 2. Special senses: Explain the physiology of eye-sight, hearing, taste and touch.
 3. Disorders of the Nervous System and sensory mechanism.
 4. Discuss the effects of drugs on the Nervous system.
 5. Be able to explain how the endocrine system regulates the bodily functions and have knowledge of the functions of the different endocrine glands.
 6. Disorders of the Endocrine System.
- F. Unit VI. Digestive System and Nutrition
1. Discuss the function of the organs of the Digestive System.
 2. Know the accessory organs of the Digestive System and their function in digestion.
 3. Be able to discuss the concept of metabolism including special topics such as nutrition and weight control.
 4. Disorders of the Digestive System.
- G. Unit VII. Urinary System and the Male and Female Reproductive Systems
1. Be able to discuss the anatomy and physiology of the Urinary System and its function in homeostasis.
 2. Disorders of the Urinary System.
 3. Be able to discuss the anatomy and physiology of the Male Reproductive System and Female Reproductive Systems. Understand the human's sexual response and have a knowledge of STD's and how this relates to society.

III. THECB Learning Outcomes (ACGM)

Upon successful completion of this course, students will:

1. Describe modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
2. Describe phylogenetic relationships and classification schemes.
3. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
4. Describe basic animal physiology and homeostasis as maintained by organ systems.
5. Compare different sexual and asexual life cycles noting their adaptive advantages.
6. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

Learning Outcomes (Lab)

1. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
3. Communicate effectively the results of scientific investigations.
4. Define modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
5. Describe phylogenetic relationships and classification schemes.
6. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
7. Describe basic animal physiology and homeostasis as maintained by organ systems.
8. Compare different sexual and asexual life cycles noting their adaptive advantages.

9. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

IV. Evaluation

LECTURE

- A. Pre-assessment: None Available
- B. Post-Assessment:
 1. **Quizzes:** The type of quiz, number and frequency will be announced by the instructor at the beginning of the course.
 2. **Exams:** The type, of exam, number, and frequency will be announced by the instructor at the beginning of the course. It is recommended that instructors administer all exams in class with at least a portion of the exam requiring written expression by the students. (Objective/Essay Combination). These evaluation methods and their frequency will be left to the discretion of the individual instructor.
 3. Grading Scale:

90 –100	=	A
80 –89	=	B
70 –79	=	C
60 –69	=	D
Below 60	=	F
- C. Grading will follow current EPCC standards.

LABORATORY

- A. Pre-assessment:

At present there is not pre-assessment tool for the laboratory portion of Human Biology (BIOL 1409).
- B. Post-assessment:
 1. **Quizzes/Exams:**
The number, frequency, and type of quizzes and exams is left to the discretion of the instructor.
 2. **Practical Exams:**
There will be at least two major practical exams during the semester.
 3. **Lab reports, journals, special projects:**
The instructor may opt to use additional assessment vehicles in determining the overall grade for the lab. These evaluation methods and their frequency will be left to the discretion of the individual instructor.
- C. Grading Scale

The particular weight given to the above evaluation methods is left up to the instructor, but the overall grade for lab will be determined using the following grading scale:

90 –100	=	A
80 –89	=	B
70 –79	=	C
60 –69	=	D
Below 60	=	F

V. Disability Statement (American with/Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024)

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.