

El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA	<u>Biology</u>
COURSE RUBRIC AND NUMBER	<u>BIOL 1113</u>
COURSE TITLE	<u>Vertebrate Zoology Laboratory</u>
COURSE CREDIT HOURS	<u>1 0 :</u> <u>3</u> Credits Lec Lab

I. Catalog Description

Accompanies Biology 1313, General Zoology. Laboratory activities will reinforce fundamental biological concepts relevant to vertebrate animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology. (This course is intended for science majors.) **Corequisite: BIOL 1313. (0:3). Lab fee**

II. Course Objectives

A. Unit I. Taxonomy and Systematics

1. Describe classification and systematics of Chordates, emphasizing vertebrates.
2. Discuss the evolutionary relationships of the Phylum Chordata.
3. Describe and identify members of the following related animal taxa: Early Chordates, jawless fishes, gnathostome fishes, amphibians, reptiles, archosauria and mammals.

B. Unit II. Vertebrate Systems

1. Describe the processes and systems of vertebrate reproduction, growth and development, principles of inheritance and population dynamics.
2. Compare and contrast the systems employed by various vertebrate animals including the integument, skeletal, muscular, nervous, respiratory, circulatory and digestive systems.
3. Describe how homeostasis is regulated by vertebrate systems, including nervous, excretory, digestion, endocrine and immune systems within the vertebrate animals (with emphasis on unique adaptations of the various vertebrates).

C. Unit III. Ecology and Biogeography

1. Describe the relationships of animals with their environment with regard to Intraspecific behavior and ecology.
2. Describe interspecific interactions between vertebrate groups.
3. Describe conservation and management strategies regarding extinction and extirpation of vertebrate groups.

III. THECB Learning Outcomes (ACGM)

Upon successful completion of this course, students will:

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. Compare and contrast the structures, reproduction, and characteristics of animals.
5. Describe the characteristics of life and the basic properties of substances needed for life.
6. Identify the principles of inheritance and solve classical genetic problems.
7. Describe phylogenetic relationships and classification schemes.
8. Identify the major phyla of life with an emphasis on animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
9. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
10. Identify the substrates, products, and important chemical pathways in respiration.
11. Describe the unity and diversity of animals and the evidence for evolution through natural selection.
12. Describe the reasoning processes applied to scientific investigations and thinking.
13. Describe basic animal physiology and homeostasis as maintained by organ systems.
14. Describe modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
15. Describe the structure of cell membranes and the movement of molecules across a membrane.

IV. Evaluation

- A. Objective and short essay exams
- B. Grading will follow current El Paso Community College catalog standards.

Grading Scale:

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

V. Disability Statement (Americans 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