

I. COURSE INFORMATION

- A. Biology 210 Biology II (Organismal)
- B. 5 credit hours
- C. Freeman, Quillin, Allison, Black and Podgor. *Biological Science*. 7th ed. New York: Pearson, 2020
- D. Prerequisites: Completion of BIO150 with a C grade or above, or by permission of the instructor
- E. KRSN: BIO 1030 Biology II for Majors with Lab

The learning outcomes and competencies detailed in this course outline or syllabus meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Groups project for this course as approved by the Kansas Board of Regents.

II. COURSE DESCRIPTION

Biology II is an integrated lecture and laboratory course for biology, pre-medicine, pre-physician's assistant, and pre-veterinary students. The course covers the morphology, physiology, behavior, taxonomy, evolution, and ecology of the Domains Bacteria, Eukarya, and Archaea.

III. LEARNING OUTCOMES

- A. Summarize and explain the processes and mechanisms of evolution
- B. Interpret organismal diversity using phylogenetic hypotheses
- C. Relate structure to function in organisms. 4. Explain how organisms interact with their environments
- D. Design and perform experiments incorporating organisms in a laboratory setting
 - a. Develop observational skills from the microscopic to the macroscopic and ecological levels
 - b. Apply quantitative measurement skills incorporating the metric system
 - c. Interpret and communicate data using appropriate analytical and statistical skills

IV. MAJOR CONTENT AREAS

- A. Organs and organ systems
- B. Organismal growth and development
- C. Population genetics and evolution
- D. Speciation
- E. Phylogeny and classification
- F. Survey prokaryotes
- G. Survey viruses
- H. Survey fungi
- I. Survey protista
- J. Survey plantae
- K. Survey animalia
- L. Population dynamics
- M. Community ecology
- N. Ecosystem ecology
- O. Biomes

V. ASSIGNMENTS (may include but are not limited to)

- A. Assignments
- B. Laboratory activities
- C. Quizzes and exams

VI. EVALUATION METHODS (may include but are not limited to)

- A. Projects and lab exercises
- B. Lecture and lab exams
- C. Assignments

D. Quizzes and exams