EAST TENNESSEE STATE UNIVERSITY

BIOL 1130 –Biology for Science Major III

Credits: 4 Section:_____ Term:_____

Location & Meeting Time

Classroom location:
Class Meeting Schedule:

Contact Information

Instructor:
Email:
Phone: (423) 439-4329
Office: Biological Science/ Brown Hall room 125

Instructor Availability

Office Hours:

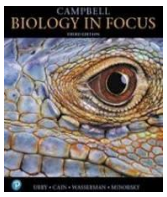
Course Description & Materials

Prerequisites: BIOL 1110/BIOL 1111. Corequisites: BIOL 1131.

Principles of population biology including taxonomy and systematics, evolutionary processes, the phylogenetic history of life on earth, and ecological relationships. Designed for biology majors, minors, and others who plan to take upper-level courses for which this is a prerequisite. Three hours lecture and two hours of lab per week. A common grade will be given for BIOL 1130/31.

Required Materials

I. **REQUIRED MATERIALS:** The department of Biological Sciences uses a common textbook for BIOL 1110,1120, and 1130.



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OR

B. Campbell Biology in Focus 3e (E-Text Only) w/ MasteringBiology Access Card. ISBN-13: 978-0134710679,ISBN-10: 0134710673

Course Overview

Course Purpose and Objectives: N\A

Expected Learning Outcomes

Upon completion of the course:

1. Students can explain the factors that cause change in genetic structure over time.
2. Students will be able to use phylogenies to interpret patterns of evolution and relationships among organisms.
3. Students can explain the flow of genetic and epigenetic information among levels of biological organization.
4. Students can describe the major types of interactions between and among organisms and their environment.

Skills associated with this course:

- Understand hypothesis-driven and evidence-based research.
- Apply statistical and bioinformatics tools to analyze and interpret data.
- Use mathematical modeling and simulation tools to describe living systems.

Major Course Topics (subject to change)

- Population Genetics
- Mutation, Migration
- Quantitative Genetics (Continuous traits, Phenotypic variance and covariance)
- Quantitative Genetics (Response to selection)
- Natural Selection
- Speciation , Phylogenetics
- Evolution of Protists, Plants and Fungi
- Evolution of Animals
- Population Growth Models
- Island Biogeography and Metapopulations Conservation Biology
- Community Ecology – Competition and Predation

Course Policies

Attendance policy: varies by instructor

Sample Assignments

1. **Workload:** The workload for this course is based on approximately 12-15 hours of work per week on the course (3 hours in lecture, 2 hours in lab, and 7-10 hours of additional work outside of class each week overthe course of 15 weeks). ETSU is accredited by the Southern Association of Colleges and Schools (SACS) who regulates the definition and determination of credit hours awarded for verified student achievement.

2. **Elearn/D2L:** All communication will be made through the online learning platform, D2L (elearn.etsu.edu),or directly through ETSU email. **Mastering Biology will be accessed through D2L** . Check the site regularly (at least once per day) for updated information and details about upcoming assignments or events.The gradebook will also be maintained on D2L.

3. **Homework:** To be completed using Mastering Biology. Homework will be available for a limited time and **must** be completed during that time, no exceptions. Homework assignments are designed to provide extra exposure to topics that are more challenging. Credit for assignments will vary and may be graded for correctness or for participation only.

4. **Exams:** All exams are designed to evaluate the depth of your mastery of the lecture material.

   A. Exam Format: There will be 3 exams, all administered through D2L (Brightspace) over the course of aweek. As exams are essentially open note exams (due to the online format) each one will be over quitea few chapters. This is intended to promote studying head of time so that you can finish the exam in the allotted time. If you expect to be able to look up each question you may find time runs out.

GRADING SCHEME: Your final grade will be a single grade comprised of lecture (75%) and lab(25%) grades.

Grade Distribution: The lecture grade will be based upon a combination of homework and exam scores as follows:

Assignment	***Point Value per Assignment***	***Percent for Course (Assignments willbe weighted as follows)***
Exam 1	100 points	65% (All exam points)
Exam 2	100 points	
Exam 3	100 points	
Homework (10)	Points vary by assignment	10% (All homework points)
		75% Lecture
Laboratory (1131)		25% Lab
		100%

Grading Scale:

A	92-100%	A-	90 -91%		
B+	88-89%	B	82-87%	B-	80-81%
C+	78-79%	C	72-77%	C-	70-71%
D+	68-69%	D	60-67%	F	0-59%

Laboratory Attendance: Completion of labs is mandatory if you want to pass the course. See lab syllabusfor

more information.

Academic Integrity: Cheating will not be tolerated. Not only is it important that you uphold a high standard of integrity in all that you do but providing a truthful and accurate depiction of your understanding of the material is vital to an instructor's ability to help you succeed in the course. ETSU policy requires that EVERY incident of academic dishonesty – no matter how minor – be reported to the Dean (see ETSU Policy here: http://www.etsu.edu/academicintegrity/default.aspx . All students will be required to sign an Academic Honesty contract affirming their understanding and adherence to all policies. Any student suspected of cheating in any way will be issued an automatic grade of 'F' for the assignment under which the violation occurred. Any student with a repeated academic integrity violation will be issued an automatic grade of 'F' for the course – no exceptions, no matter how minor.

Special student needs: Students with special circumstances such as disabilities or extraordinary family or health situations should *contact the instructor at the start of the semester* to arrange necessary accommodations. We will work with ETSU Disability Servicesto arrange for appropriate accommodations. If you feel you have special needs regarding classroom and testing situations you may contact ETSU Disability Services yourself. Disability Services is located in the D.P. Culp Center, Room 326, telephone 439-8346. http://www.etsu.edu/students/disable/

Tutoring: The ETSU Center for Academic Achievement (CFAA) offers individual and group tutoring for Biology students. To arrange for online tutoring help, visit their web site: http://www.etsu.edu/uged/cfaa/learning/. The CFAA is normally located in theSherrod Library (main floor, just beyond the Brueghel's Bagel shop).

Other

Syllabus Attachment Information: The University's approved Syllabus Attachment Information page provides information about important University and Academic Policies that all students should know. Syllabus Attachment Link- Click Here