



## EAST TENNESSEE STATE UNIVERSITY

### BIOL 1120 –Biology for Science Major II

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:

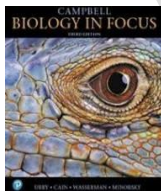
#### Course Description & Materials

Corequisites: BIOL 1121.

Principles of organismal biology, including structure and function of multicellular organisms, especially chordate animals, and flowering plants. 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 in BIOL 1120/21.

#### 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:

Over the course of the semester you will be asked to apply scientific thinking and reasoning to uncover and examine the development and physiology of living systems. You will encounter several overarching themes throughout the course, including, but not limited to the following learning outcomes and scientific skills:

### Expected Learning Outcomes

Upon completion of the course:

1. Students will be able to construct and interpret phylogenies to infer patterns of evolution and relationships among organisms.
2. Students can compare and contrast major developmental events and processes in a diversity of organisms.
3. Students can explain the transfer and transformation of energy and matter within and among levels of biological organization.
4. Students can relate how physical constraints influence biological form and function.
5. Students can analyze the relationship of structure and function in organisms and biological processes.
6. Students can define how emergent properties relate to different levels of biological organization.
7. Students can describe and differentiate the major types of interactions between and among organisms and their environment.

Scientific Skills:

- Understand hypothesis-driven and evidence-based research.
- Identify accurate and reliable sources of information.
- Apply rigorous experimental design and data collection.
- Evaluate scientific results in context of methods or protocols used.
- Construct appropriate and testable hypotheses and derive predictions.
- Use effective representations and visualizations for biological data.
- Articulate methods and knowledge in written and oral forms.
- Interpret data from various sources to develop an appropriate conclusion and recognize knowledge gaps.
- Ability to apply biological research to address societal problems.

### Major Course Topics (subject to change)

- The Rise of Animal Diversity
- Neurons, Synapses, and Signaling
- Motor Mechanisms and Animal Behavior
- Circulation and Gas Exchange
- Immune System
- Animal Nutrition

- Reproduction and Development
- The Colonization of Land by Plants & Plant Structure and Growth
- Resource Acquisition, Nutrition, and Transport in Vascular Plants
- Plant Responses to Internal and External Signals

## 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 over the 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 a week. As exams are essentially open note exams (due to the online format) each one will be over quite a few chapters. This is intended to promote studying ahead 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:

<b>Assignment</b>	<b>Point Value per Assignment</b>	<b>Percent for Course (Assignments will be weighted as follows)</b>
Exam 1	100 points	50% (All exam points)
Exam 2	100 points	
Exam 3	100 points	
Homework (10)	Points vary by assignment	25% (All homework points)

Laboratory (1131)		75% Lecture
		25% Lab
		<b>100%</b>

**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 syllabus for 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 Services to 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 the Sherrod Library (main floor, just beyond the Brueghel's Bagel shop).

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## 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](#)