

## **BIOL 1150 GENERAL BIOLOGY II – Fall 2015**

**Instructor:** Dr. Laurissa Hamilton

**Office:** N-261      **Office Hours:** Monday and Wednesday 09:15am – 10:45am and by appointment

**Contact Information:** my office (*best*) or lhamilton@csustan.edu (*good*) or (209) 667-3489 (*worst*)

**Texts & Materials:** All required and recommended materials are available in the campus bookstore. You may be able to find the same books for better prices by using online sources.

### **1. *Campbell Biology with Mastering Biology*, 10th edition by Campbell and Reece, 2011, ISBN 9781269590068**

- I selected this text as the primary book for this course because it is comprehensive, relatively easy to read, has excellent figures, and is a standard in the field. It also comes in a variety of formats.
- Text is available in several formats: Hardbound, paperback, loose-leaf three-hole punched, and as an e-book.
- The 9<sup>th</sup> edition is probably fine to use, but you may wish to compare the 9<sup>th</sup> and 10<sup>th</sup> editions.
- You will have required assignments through the Mastering Biology website, so you must also purchase this module. If you buy a used book elsewhere, you can purchase access to Mastering Biology separately.
- The Mastering Biology will provide you tools that will assist your success and learning. Plus, you'll earn points for completing homework assignments!

### **2. The iClicker is **required** for this course.**

- Using clickers in class helps to make lecture more interactive. It keeps you awake, allows you to earn participation points, and it helps me to gauge how well the class understands my presentation.
- Register your iClicker at [www.iclicker.com](http://www.iclicker.com) right away! Be sure to use your CSU Stanislaus username! (e.g. lhamilton) as your ID.
- \*\*\*Beginning on Monday (9/28) you will not be eligible for potential points via the iclicker system if you have not registered your iclicker. Points will begin accruing toward your grade on beginning on Monday, August 31<sup>st</sup>.\*\*\*
- iClicker grading: 1 pt. for participating in the **entire day's session**, 1 pt. for the correct answer, ¼ pt for incorrect answer.
- You *can* purchase a used iClicker and re-register it under your own name.

### **3. You will need to use the **Blackboard course site** for this class.**

- Go to <http://my.csustan.edu> and click on the "Blackboard" link on the left side of the page.
- Login and enter the Biology 1150-006 course site to find course content.
- There are many student computer labs available on campus; you do not need to own a computer.

## **COURSE DESCRIPTION AND OBJECTIVES**

### ***Purpose of Course***

The purpose of the introductory series is twofold: (1) to introduce students to the breadth of the biological sciences and (2) to help beginning biology majors master the fundamental facts and theories needed for success in subsequent courses.

This course is the second in the two-course series. We will discuss life from the earliest cells to ecosystems. Learning objectives will be met through a combination of Lecture (LE) & Lab (LA) experiences.

### ***Learning Objectives***

Students will be able to describe, identify, and/or explain:

- The main ways organisms acquire, store, use and transfer energy. (LE, LA)
- The main ways organisms acquire, transport, process, use and transfer nutrients. (LE, LA)
- How organisms grow and change in appearance and abilities. (LE, LA)
- The main ways that organisms monitor, respond to and are affected by their environments. (LE, LA)
- How organisms are categorized and relationships investigated and analyzed. (LE, LA)
- The evolution of organisms and their diversity. (LE, LA)
- How biology is integrated with other sciences. (LE, LA)

Students will be able to:

- Apply the scientific method to the solution of biologically-based problems. (LA)
- Identify information needs; access, critically evaluate, and apply scientific information. (LE, LA)

- Function effectively and safely in the laboratory and in the field. (LA)
- Use a range of written and oral communication skills. (LE, LA)
- Apply effective learning strategies. (LE, LA)
- Think independently, yet function as a productive member of a team when appropriate. (LE, LA)

Students will:

- Value the process of scientific inquiry as a means of understanding the natural world. (LE, LA)
- Develop an appreciation for biology and its relevance to broader societal issues. (LE, LA)
- Identify with and participate as a member of the scientific community. (LE, LA)
- Conduct themselves and their activities in a professional manner. (LE, LA)

### Course Requirements

Prerequisite: Passing grade in BIOL 1050.

Corequisite: Enrollment in a lab section of BIOL 1150.

### Assessment Methods, Grades, and Grading

The most practical assessment measure for content-heavy courses is the objective exam. Most of your grade for the lecture portion of the course will be based on lecture exams. Participation points will be available daily in lecture, through participation with your iClicker. Questions will include pre-test quiz questions, comprehension questions, and summary/review questions. Thus, you have the opportunity to earn participation points through the entire class period. There **may** be opportunities to gain a few points of extra credit in lecture and lab. Lab points are added to lecture points to calculate your total grade in the course. **I do not use a curve.** This course is graded plus/minus, and there is a CR/NC (Credit/No Credit) option.

Grade Calculations Grades are based on the percentage of points earned.

A 93-100%	A- 90-93%	B+ 87-90%	B 83-87%	B- 80-83%	C+ 77-80%
C 73-77%	C- 70-73%	D+ 67-70%	D 63-67%	D- 60-63%	F 0-60%

If you take the credit/no credit option: CR 70-100% NC 0-70%

Any homework or extra credit assignment must be turned in on the day and time it is due. Under normal circumstances, if offered, no extra credit will be accepted after the due date. Your end of the semester homework point total will constitute 10% of your final course grade. **No makeup assignments will be given, but students can drop their 2 lowest homework scores.**

The last day to apply for the CR/NC grading option is Wednesday, December 9<sup>th</sup>. To do so you must contact me in person and have your form filled out and ready for me to sign. It is your responsibility to turn this form in to Enrollment Services. I will follow the grading option indicated on the final grade sheet supplied by Enrollment Services. Consult with your advisor before making your decision. Once you have selected the CR/NC option you cannot opt for a grade. **No grades will be changed once they have been submitted to the registrar.** The last day to drop the class is Monday, September 21<sup>st</sup>.

<u>Course Component</u>	<u>Possible Points</u>
Class Participation	~40-80
Homework	~10% of grade
Exam 1	100
Exam 2	100
Exam 3	100
Exam 4	100
<b>Mandatory</b> Final Exam	100
Lab	300
<b>TOTAL POINTS POSSIBLE</b>	<b>~840-880</b>

### Expectations of Students

- **Engage the course material** through participation in class, reading the text, and thinking about biology outside of class.
- **Be respectful of others** by arriving on time, giving your attention to whoever is presenting, listening to the ideas of your classmates, turning off cell phones, and generally being polite. This also means no text-messaging (yes, the person at the front of the room *can* tell what you are doing) and no internet surfing (it's distracting to those sitting around you). Please don't engage in side conversations. **If you use a laptop computer in class it must be used only for purposes relevant to the course and you must sit in the first row.** A first time violation will result in a 10 point deduction from your grade. A second violation will result in 30 points deducted from your grade and you will no longer be allowed to use a laptop in the class.

- **Observe lab safety** and cleanliness procedures. All lab materials must remain in lab at all times.
- The final exam **must** be taken during the scheduled time. Exams 1-4 also should be taken as scheduled, however, if a student has a valid, documented reason s/he cannot take an exam at the appointed time, the student may be able to take an exam early, however this exam may be different from the regular exam and may include essay and short answer questions. Requests for early exams must be submitted in writing to the instructor at least one week prior to the scheduled exam. No makeup exams will be given after an exam has been returned to the class; any unexcused missed exams without a proper written and verifiable excuse will be recorded as a zero. If you miss an exam for a legitimate emergency it is your responsibility to notify the instructor immediately. If provided, makeup exams may be different from regular exams, may include essay and short answer questions, and only will be allowed for a valid documented emergency absence. These must be completed as soon as possible and no later than within one week of the originally scheduled day of the exam. It is the responsibility of the student to contact the instructor and make arrangements to take the test within the allowed time.
- **Maintain your academic integrity.** *Your integrity is your most valuable asset as a student* and in your future career as an educated person. In line with this, it is the policy of the Department of Biological Sciences that anyone caught *cheating* or *plagiarizing* will receive a grade of F for the course. I reserve the right to request any student suspected of cheating to take a second, different exam on the material. Protect yourself by making your integrity obvious.

### **Expectations of the Instructor**

- Same as those for students, in terms of engagement in the course, respect for participants, and observation of lab safety procedures. I do my best to protect your privacy and maintain an environment in which you can learn.
- Be **open to feedback** on the course and be flexible in order to make appropriate changes to meet student needs.
- Be **fair and consistent in assessment** of student learning.
- Be **available to students** outside of class time to answer questions and discuss class material.

**Students with Disabilities:** If you are a student with a documented disability, please meet with me privately as soon as possible so we can arrange the accommodations that will foster your success in this course.

### **Tentative Exam Schedule**

(subject to change as needed)

	<b>Date</b>	<b>Tentative Chapters</b>
<b>Exam 1</b>	<b>Sept. 18</b>	<b>22-26</b>
<b>Exam 2</b>	<b>Oct. 12</b>	<b>27-30, 35</b>
<b>Exam 3</b>	<b>Nov. 2</b>	<b>31-34,</b>
<b>Exam 4</b>	<b>Dec. 9</b>	<b>52-55</b>
<b>Final Exam</b>	<b>Dec. 14th; 8:30 a.m.-10:30 a.m.</b>	<b>Comprehensive</b>

### **How you Earn your Grade in Lecture**

#### **Mastering Biology Assignments**

Mastering Biology provides a wealth of tools for students and instructors. In each chapter, you can explore information about the topics, watch videos, quiz yourself, and work through problems.

As each chapter is completed, I will post assignments to motivate you to engage with the material. Assignments will be graded for completeness and correct answers and together, they will be worth approximately 10% of your final score. My hope is that the assignments will allow you to earn points while interacting with the material to really master the topics we will cover this semester. If you did not purchase Mastering Biology bundled with your textbook, then you will need to purchase the site access separately.

Our COURSE CODE IS: **MBHAMILTON73858.**

The first Mastering Biology assignment will become available at 9am on 8/24/15 and is due by **11:59 PM** on **Wednesday, 9/2**. Please be sure to attend class regularly – assignments and their due dates will be announced in class.

**Exams:** There will be four (4) regular exams during the semester and a comprehensive final exam. The final exam will be on Monday, December 14th from 8:30a.m. – 10:30 a.m. in P167. Exams will consist of questions to be answered on a Scantron (bring a Scantron form 882-E and pencil). There also **may** be one page (front and back) of short answer/identify a picture from the text/label-a-process questions. Questions will cover material from lecture. If you are late to an exam, then you will have less time to complete the exam so plan your schedule accordingly. Traffic and/or car problems are not acceptable excuses for being late. During exams, cell phones must be turned off and hats must be removed. If your cell phone rings during an exam or you arrive more than 15 minutes late without a proper written and verifiable excuse, five (5) points will be deducted from your score. Students who arrive after the first exam of the day has been turned in will not be allowed to take the exam. No food, drinks, or headphones are allowed during the exam period. You must not leave the room during an exam/quiz without the instructor's permission.

The instructor reserves the right to give unannounced quizzes if it becomes apparent that students are not keeping up with the material and/or there are an unacceptable number of absences. If you happen to be absent that day or you fail to follow instructions, you will receive a grade of 0 for that quiz.

**Audio\Video Recording:** Recording of lectures is not permitted without written consent from your instructor.

#### *Tips for learning the material*

In my experience, many bright students are simply not challenged during high school. As a result, these smart and capable people haven't had the opportunity to develop the study skills needed for success in the university. Don't let the first exam catch you by surprise! This course is content-heavy, and you will **not be able to cram** with much success for my exams. **Make your study time a daily habit.**

- Skim the whole chapter before you come to class. Carefully read and interpret the figures and tables and carefully read each vocabulary term.
- Take notes in class based on what you hear. Do not spend the class period copying every word off my slides. These same words can be found in your text.
- After class review your notes. Go back and read the text book to fill in gaps in your understanding. **Some students have been very successful by copying out their notes onto flashcards for study.**
- After class, write 7-10 exam questions for the material. This will give you a study sheet for before the exam.
- When you study, don't fool yourself! When you page through the text book, everything will look familiar. This doesn't mean that you personally own the knowledge yourself. Make it yours! After each class day, without looking at your notes or the book, write down a list of the topics and subtopics covered. Write down key words and their definitions. Make your best sketch of the figures/illustrations presented. After this, open your text and see how well you did. The parts you missed entirely are the parts you need most to study, the parts you partially remembered also need some attention. The parts you know perfectly are part of your own knowledge set.

#### **Participation**

You will use your clicker to respond to in-class questions. This helps me gauge your level of comprehension and will help me with the pacing of the material. It also allows me to reward you for being dedicated in your lecture attendance. I know things come up, and you might miss a day or two of class; don't worry, *it will be safe to miss four days without penalty. Hint: put **three** spare batteries in your backpack in case your i>Clicker fails!*

**You must be present to earn participation points.**

**Asking another student to click for you OR clicking for someone else is *obviously* cheating.**

**Anyone using more than one clicker will receive an F for the course.**

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**TUTORING ON CAMPUS** – Free tutoring services are available to assist you in most disciplines, including in biology! Library 112; Phone (209) 667-3642; Web <http://www.csustan.edu/Tutoring>

**CAMPUS COUNSELING SERVICES** – Overwhelmed by the stress of juggling classes and your home life? Our campus offers excellent counseling services to help support you! MSR 210; Phone (209) 667-3381; Web <http://www.csustan.edu/Counseling/>

**Tentative Lecture Schedule  
(Subject to Change)**

<b>Week</b>	<b>Topics</b>	<b>Chapter(s)</b>
<b>1</b>	Course Introduction, Early Earth and the Origin of Life	<b>25</b>
<b>2</b>	Phylogeny & Tree of Life	<b>26</b>
<b>3</b>	Intro to Darwinian Evolution and Natural Selection	<b>22</b>
<b>4</b>	The Evolution of Populations & Origin of Species	<b>23, 24</b>
<b>5</b>	Introduction to Microbes	<b>27</b>
<b>6</b>	Protists	<b>28</b>
<b>7</b>	How Plants Colonized Land	<b>29</b>
<b>8</b>	The Evolution of Seed Plants; Plant Structure & Function	<b>30, 35</b>
<b>9</b>	Fungi	<b>31</b>
<b>10</b>	Animal Diversity, Tissues and Body Plans	<b>32</b>
<b>11</b>	Invertebrates	<b>33</b>
<b>12</b>	Vertebrates	<b>34</b>
<b>13</b>	Introduction to Ecology	<b>52</b>
<b>14</b>	Population Ecology, Human Populations	<b>53</b>
<b>15</b>	Community Ecology, Ecosystems	<b>54, 55</b>
<b>16</b>	<b>Final (Comprehensive) Exam: Monday, Dec 14: 8:30 – 10:30 am</b>	<b>All</b>