

Biology 100
Perspectives in Biology
Spring 2009

Dr. Anna Jacobsen

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Office: **Sci I Room 213**

Office Hours: Tuesday and Thursday 2 – 4 PM or by appointment

Lecture:

(Section 006) CRN 30271

Tuesday and Thursday 9:30 AM - 11:10 AM

Location: Science III Room 108

Laboratory Sections:

You must be concurrently enrolled in one of the following laboratory sections. *Attendance in laboratory is mandatory* and the expectations and requirements for lab will be discussed in your lab section.

Section 007 (CRN 31342)
Wednesday 9:30 AM - 12:00 PM
Sci 1 Room 221

Section 009 (CRN 31344)
Wednesday 3:10 PM - 5:40 PM
Sci 1 Room 221

Section 008 (CRN 31343)
Wednesday 12:20 PM - 2:50 PM
Sci 1 Room 221

Section 010 (CRN 31345)
Wednesday 7:30 PM - 10:00 PM
Sci 1 Room 221

Required Texts and Materials:

Lecture:

Essential Biology with Physiology Second Edition by Campbell, Reece, and Simon

ISBN: 0-8053-6841-8

i>clicker ISBN: 0-7167-7939-0

Laboratory:

A Laboratory Guide for Biology 100: Perspectives in Biology by Ted Weinheimer

ISBN: 0-7575-1396-4

Course Website:

www.csub.edu/~ajacobsen/Bio100.htm

Username: Biology100

Password: Jacobsen

(Please note: the proper spacing and capitalization are required for the username and password).

Course Description: Perspectives in Biology is a lower division, general biology course which focuses on issues of modern biology. Emphasis is given to biological concepts with have specific relevance to society. The course also includes a mandatory laboratory that is designed to introduce students to biological inquiry. Successful completion of Biology 100 fulfills Area B1 (lecture) and B3 (laboratory) of the course catalog.

Course Prerequisites: *There are no specific prerequisites for this course.*

Course Goals and objectives: Upon completion of lecture and reading assignments, students will be able to:

1. Use the scientific method to answer appropriate questions and recognize when the scientific method is, and is not, appropriate.
2. Use the proper scientific writing style to present hypotheses, data, results, and discussions of scientific evidence. In addition, students will know how to present scientific results using an organized and professional format.
3. Describe the nature of living systems from cells to organisms and populations.
4. Describe how traits are transmitted via genetic information from one generation to the next, and the importance of cell-level processes to important aspects of living organisms such as feeding, locomotion and reproduction.
5. Describe how natural selection shapes which traits are passed from one generation to the next, and how this causes the traits of populations to change over time. Be able to identify the three main criteria for natural selection to occur.
6. Analyze the traits of an organism to determine how the traits they possess help them to survive and reproduce in different environments.
7. Identify basic similarities and differences between plants and animals in the structures of their cells, tissues and energetic processes.
8. Analyze interactions between organisms and their environment, identify the important things organisms must obtain from their environment, and explain how they do so.

General Education Assessment: Students are strongly encouraged to participate in the GE Assessment of this course. This involves two surveys, a “pre” course survey and a “post” course survey. The pre-assessment will be available on WebCT **March 30-April 6**. Students should go to their webCT (webct.csub.edu), click on Biology GE Survey, then take the "Biology GE Survey: Beginning of Quarter". The post-assessment will be available from the last day of class through the end of finals (**June 9-June 12**).

Student Learning Evaluation: Student performance in this course will be evaluated through two midterm exams, 17 “pop” quizzes, two written assignments, several graded lab assignments, and a final exam. The final exam will be comprehensive.

Quizzes: Quizzes will be given during the lecture period and may occur at any time during the scheduled lecture period. Lateness to class or missing class will result in missing the quiz or potentially an exam. In the event that you miss a quiz or exam, you will not be allowed to make up the quiz or exam unless you have a valid medical or family emergency (that can be verified by a doctor’s note or some other form of verification). It is **STRONGLY** recommended that you contact Dr. Jacobsen **BEFORE** missing an assignment for any reason.

Quizzes in class will be conducted using i>clickers which are a required item for this course. Students are required to bring their i>clicker to every lecture and each student must have their own i>clicker. Students will receive 3 pts for bring present in class and having a question response registered to their i>clicker. Students may earn an additional 2 pts for entering correct answers on the quiz questions. The only way to participate in these quizzes in through use of an i>clicker (i.e. paper quiz responses will not be accepted).

Assignments: All assignments are due at the beginning of class on the date indicated. Any assignment turned in after that time will be penalized 10% per day to a maximum of 50%. Assignments more than five days late will not be accepted. Students are required to complete 2 written assignments in order to successfully complete Biology 100. Students that do not complete these assignments will not pass this course.

Emailing of assignments is NOT acceptable. Emailed assignments will not be graded and the assignment will be considered late until a “hard” copy is handed in. Late penalties as described above will be applied.

Detailed instructions regarding the two written assignments will be posted on the course website (www.csub.edu/~ajacobsen/Bio100.htm) and will be discussed during laboratory meetings.

Additionally, **course materials will also be posted to the course website periodically throughout the quarter and students should check the website regularly for new information or modifications to the course schedule.**

Exams: Both midterm exams and the final exam will consist of questions in a range of formats including, but not necessarily limited to, multiple choice, matching, true/false, short answer, and short essay. All of the exams will contain material covered in both lecture and laboratory readings, lectures, assignments, and activities. The final exam will be comprehensive and will include material covered in both the lecture and laboratory.

Students are not permitted to have any notes, books, or other outside materials present with them during exams. Calculators, cellular phones, or other electronic items are also not permitted. Students will not be permitted to wear any brimmed caps on exam days (i.e. no baseball caps, etc.) and students are expected to bring their own writing implement with them. Exams will start promptly at the start of the scheduled exam period. Make-up examinations will be given only with for students that have a valid and documented family or medical emergency which is approved by the instructor. There is no “make-up exam” for the final exam, nor will this exam be rescheduled for students. It is STRONGLY recommended that you contact Dr. Jacobsen BEFORE missing an exam for any reason.

Students will receive a single grade for this course representing their combined performance in both the laboratory and lecture portions of the course. Laboratory instructors will be responsible for assessing student performance in laboratory assignments and both the hypothesis paper and lab report.

Student performance (i.e. grades) in this course will be based on the following:

Midterm Exams (50 pts each)	100
Quizzes (17 quizzes at 5 pts each)	85
Hypothesis Paper	20
Lab Report	30
Lab Assignments	15
Final Exam	100

Total Points: 350

Letter grades are assigned as follows based on the following percentages of total course points:

93 - 100 = A	83 - 86 = B	73 - 76 = C	63 - 66 = D
90 - 92 = A-	80 - 82 = B-	70 - 72 = C-	60 - 62 = D-
87 - 89 = B+	77 - 79 = C+	67 - 69 = D+	< 60 = F

Academic integrity: Cheating in any form (including, but not limited to, copying test answers or outside assignments, sharing answers, using pre-prepared notes or other information not available from your own mind, taking credit for the work of others, submission of the same paper for credit in multiple courses, and plagiarism) will not be tolerated and is grounds for failure of the assignment or course, dismissal from the course, academic probation, or possibly dismissal from the college. See University Catalog for information concerning plagiarism and academic dishonesty.

Students are expected to arrive on time to lecture and to be active and engaged participants in lectures, activities, and discussions. **Cellular phones and other electronic devices must be turned OFF during lectures. No food or drink of any kind are permitted in the classroom or laboratory.**

ADA Students with Disabilities Statement: Reasonable accommodations may be made that allow disabled students to be successful at CSUB. Accommodations may be provided for those students who submit the appropriate documentation by an outside/independent professional evaluator or agency through SSD. To request academic accommodations due to a disability, please contact the Office of Services for Students with Disabilities (SSD) as soon as possible. Their office is located in SADM 140, and they may be reached at (661) 654-3360 (voice), or (661) 654-6288 (TDD). If you have an accommodations letter from the SSD Office documenting that you have a disability, please present the letter to me during my office hours as soon as possible so we can discuss the specific accommodations that you might need in this class.

The tentative course schedule is included below:

Lecture and Laboratory Topics		Assignments	
Introduction to Biology and the Process of Science			
W	Apr 1	<i>An Introduction to Science</i>	LAB Investigation 1: A, B, C, and Addendum
R	Apr 2	Biology and the Process of Science	Chapter 1
What is Life?			
T	Apr 7	ORDER	Chapter 2 and 3
W	Apr 8		LAB Investigation 15
R	Apr 9	ORDER	Chapter 4 and 5
T	Apr 14	ORDER	Chapter 21 and pp. 619-627
W	Apr 15		LAB Investigation 3: A, B, C, and D
R	Apr 16	REGULATION	Chapter 23 and pp. 646-648
T	Apr 21	REGULATION	Chapter 25 and pp. 649-652
W	Apr 22		Earth Day Activity ***Hypothesis paper due for lab project***
R	Apr 23	GROWTH AND DEVELOPMENT	Chapter 26 and pp. 628-631
T	Apr 28	***EXAM 1***	
W	Apr 29		LAB Investigation 14 F (modified)
R	Apr 30	ENERGY UTILIZATION	LAB Investigation 4
T	May 5	ENERGY UTILIZATION	Chapters 6 and 7
W	May 6		Chapter 22 and 641-645
R	May 7	RESPONSE TO THE ENVIRONMENT	LAB Investigation 6 V.D. pg 44-46
T	May 12	REPRODUCTION	Chapter 24, 27, pp.653-654, and supp. Reading
W	May 13		Chapter 8
R	May 14	REPRODUCTION	handout
T	May 19	REPRODUCTION	Chapter 26 and pp. 632-636
W	May 20		Chapters 9, 10, and 11
R	May 21	EVOLUTION	LAB Investigation 11
T	May 26	EVOLUTION	Chapter 13 and 14
W	May 27		Chapters 15, 16, and 17
R	May 28	***EXAM 2***	LAB Investigation 13 A and B
Life Interacting.			
T	June 2	ECOLOGY	Chapter 18
W	June 3		FACT Tour ***MEET AT FACT FOR LAB***
R	June 4	ECOLOGY	Chapter 19
T	June 9	Biology and Society	Chapter 12 and 20

Final Exam: Thursday June 11, 2009 11:10 am – 1:30 pm

An up-to-date course schedule is available on the course website:

www.csub.edu/~ajacobsen/Bio100.htm

The course is divided into three sections: 1. An introduction to Biology and the Process of Science, 2. What is Life?, and 3. Life Interacting. Within the “What is Life?” section, we will cover several broad biological topics as they relate to the seven features shared by all living organisms (Order, Regulation, Growth and Development, Energy Utilization, Response to the Environment, Reproduction, and Evolution).

Laboratory investigations are specifically designed to correlate with topics that are being discussed in lecture and students are expected to read the assigned textbook chapters, supplemental readings, and laboratory investigations prior to attending the associated lecture or laboratory.