

Fall, 2013

BIOLOGY 205: CELLULAR & ORGANISMIC BIOLOGY I

Mondays, Wednesdays, and Fridays 10:30 am - 11:20 pm

Henry Hall, Room 225

Professor: Dr. Richard Alvey

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Office Hours: Mondays and Thursdays 1:30pm to 4:30pm or by appointment

Please use your “chaminade.edu” account for all email communications to me.

Textbook: *Biology: A Custom Edition for Chaminade University, 2011-2012*. taken from *Campbell Biology*, Ninth Edition, Jane B. Reece et al, and *Becker's World of the Cell*, Eighth Edition by Jeff Harden, et al. Pearson Publishing

Course Website: <http://goo.gl/TYQWcE>
(CaSe SeNsItIvE)



Course Overview:

Biology 205 is a 3-credit introductory biological science course for science majors desiring advanced studies in the sciences, e.g. biology, biochemistry, forensic science, medicine, dentistry, environmental health, and other areas. It is followed by Biology 206 in the second semester.

The following is from the 2013-2014 General Catalog:

Introduction to the cell biology of prokaryotic and eukaryotic organisms, with particular reference to the relationships between structure and functions. Cell cycle and mitosis, organization of cells, roles of cell signaling and extracellular environment in establishing structures in animals and plants

Course Goals:

1. To present basic concepts and principles of biology for use in present and future courses.
2. To prepare the student to continue into advanced biology or related fields, such as biochemistry.
3. To help the student on their road to becoming a competent and educated professional.

Objectives for Students: By the end of the semester students should be able to answer to following essential questions:

- How is the cell the basic unit of life?
- How do materials enter and leave the cell?
- What are the structures and functions of the cell? What is the relationship between structures and their function?
- What are the stages of the cell cycle and how is it regulated?
- What are the differences between prokaryotic and eukaryotic cells?
- What are the differences and similarities between plant and animal cells?
- What are the biological macromolecules of the cell?
- How do the cellular organelles interact to carry out cellular metabolism?
- How do cells produce and harvest chemical energy? What are the differences and similarities between how plant and animal cells accomplish this?

Lectures:

1. Class time is 50 minutes in duration, three times weekly for 15 weeks.
2. Lecture topics are listed in the course outline. Consult the outline for exam dates and holidays.
3. Adjustments may be made to the lecture outline, such as changes in exam dates, or assignments.

Grade Determination:

- Separate grades will be given for lecture and laboratory.
- Daily quizzes will be given during the semester. Your quiz scores will be averaged together and will be equivalent to one exam.
- The lecture grade will be determined in the following manner:

1 st lecture exam	100 points	A ≥90%
2 nd lecture exam	100 points	B = 80-89%
Cumulative Final exam	200 points	C = 70-79%
Daily Quizzes	100 points	D = 60-69%
<hr style="border: 0.5px solid black;"/>		F ≤59.9%
Total Possible	500 points	

NOTE: I reserve to write to add extra assignments and make adjustments to this formula as necessary.

Note: Any exam that the student fails to complete at the expected time can be made up only with a valid reason to be determined by the instructor. The exam may be different from the exam taken by the other students.

The quizzes that are given for each class period are intended to motivate you to keep up with the material. We will be covering a lot of material at a somewhat accelerated pace. The quizzes will also give you a sense of the types of questions I will be asking on the exams and provide me with a simple way to keep track of attendance and allow me to reward those who make it to class everyday. I encourage you to review the material from the previous lecture before class and come prepared with questions you may have on what was covered.

Additionally, I am going to try out a “Second chance policy.” If there are questions on the quiz that you feel you were not able to answer correctly, you can e-mail me your corrected answers before midnight the same day and receive half credit for what you missed. For instance if you correctly answered 8 out of 10 questions on the quiz but did not have a clue for two of the questions, you can look up the answers and email them to me later that day and, if your new answers are correct, I would give you an additional 0.5 points for each of the two missed questions which would result in you getting a 9 out of 10 instead of 8 out of 10. Keeping up with this for every quiz should help you to keep a high quiz average which may be particularly helpful if you find you are not the best test taker.

Class Policies:

- Attendance is **mandatory** for each lecture and laboratory. Attendance will be monitored. Attendance for laboratory is especially important and unexcused absences for both lecture and laboratory will result in **grade penalties** to be determined by the instructor.
- All excused absences will require a paper-based (either typed or hand-written, not email) request for excused absence. The note must include an explanation of the reason for not being in class, the date or dates of the absences, an acknowledgment of the material missed, and a signature by the student. Supporting materials such as a doctor’s note may be included as supporting evidence but the personal note acknowledging the missed material is still required. Excused absences will be noted in the grade book and quizzes given that day will not be counted for or against the student. Missed exams will have to be made up.
- Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from the CUH Counseling Center (Dr. June Yasuhara; phone 735-4845) by the end of week three of the class, in order for the instructor to plan accordingly. Failure to provide written documentation will prevent your instructor from making the necessary accommodations. Please refer any questions to the Dean of Students and review the procedures at **http://www.chaminade.edu/student_life/sss/counseling_services.php**.
- Academic dishonesty including cheating, plagiarism, and other serious offenses will not be tolerated. Appropriate action will be taken.
- Electronic devices: The use of cellular phones/text messaging is prohibited while in class. Laptops may be used to take notes but are not to be used for other purposes such as web browsing, text messaging, or working on anything else not related to class. This is a university-wide policy and the use of such devices during lecture time is disrespectful to the lecturer and neighboring students.

BIOLOGY 205 General Biology I
Fall, 2013 Course Outline

Week	Class/Lab	Date	Lecture topic	Chapter	Lab Activities
1	1	8/26/13	Intro/Chemistry of Life	2 (C)	Microscopy
	2	8/28/13	Chem of life cont'd	2(C)	
	3	8/30/13	Structure and function of Biomolecules	5(C)	
***** 9/2/13 Labor Day No Class *****					
2	4	9/4/13	Structure and Function of Biomolecules cont'd	5(C)	Qualitative Chemical Tests
	5	9/6/13	DNA	16(C)	
3	6	9/9/13	DNA	16(C)	Quantitative Chemical Tests
	7	9/11/13	Prokaryotes	4(B), 27(C)	
	8	9/13/13	Prokaryotes	4(B), 27(C)	
4	9	9/16/13	Viruses	19(C)	Scientific Method/ Bacteriology
	10	9/18/13	Eukaryotes	6(C), 4(B)	
	11	9/20/13	Eukaryotes	6(C), 4(B)	
5	12	9/23/13	Eukaryotes	6(C), 4(B)	Scientific Method/ Bacteriology
	13	9/25/13	Review		
	14	9/27/13	Exam #1		
6	15	9/30/13	Endomembranes	12 (B)	Diffusion and Osmosis
	16	10/2/13	Endomembranes	12(B)	
	17	10/4/13	Cellular Membranes and Transport	7(C), 7&8(B)	
7	18	10/7/13	CM & T Cont'd	7(C), 7&8(B)	Lab Exam #1
	19	10/9/13	CM & T Cont'd	7(C), 7&8(B)	
	20	10/11/13	CM & T Cont'd	7(C), 7&8(B)	
*****10/14/13 No Classes - Discover's Day*****					
8	21	10/16/13	Enzymes	8(C), 5&6(B)	Histology
	22	10/18/13	Enzymes cont'd	8(C), 5&6(B)	
9	23	10/21/13	Cellular Respiration	9(C)	Enzyme Kinetics
	24	10/23/13	CR cont'd	9(C)	
	25	10/25/13	Photosynthesis	10(C)	
10	26	10/28/13	Photosynthesis cont'd	10(C)	Photosynthesis
	27	10/30/13	Review		

	28	11/1/13	Exam #2		and TLC
11	29	11/4/13	Cytoskeleton	15(B)	Cellular Respiration
	30	11/6/13	Cytoskeleton cont'd	15(B)	
	31	11/8/13	Cell Movement	16(B)	
12	***** *11/11/13 No Class – Veterans Day*****				
	32	11/13/13	CM cont'd	16(B)	Mitosis
	33	11/15/13	Extracellular Matrix	17(B)	
13	34	11/18/13	Cell Communication	11(C)	DNA Extraction
	35	11/20/13	Cell Communication	11(C)	
	36	11/22/13	Signal Transduction	14(B)	
14	37	11/25/13	Signal Transduction	14(B)	Thanksgiving Break – No Lab
	38	11/27/13	Cell Cycle	12(C)	
	*****11/29/13 No Class – Thanksgiving*****				
15	39	12/2/13	Cell Cycle	19(B)	Lab Exam #2
	40	12/4/13	Cancer	24(B)	
	41	12/6/13	Review		
	Final Exam:		Thursday, December 12, 2013 11:00AM – 1:00 PM		