

Syllabus: BIOL 101, Summer 2014

Course Instructors: Dr. Nandadevi Cortes Rodriguez
(mcortes1@umbc.edu)

Dr. Rachel Sturge (rsturge1@umbc.edu)

Textbook: Simon, Dickey & Reece, *Campbell Essential Biology* 5th edition

Class meeting times: Tuesdays & Thursdays 1-2:50pm UC 115

1) Course Description:

This course will cover a broad overview of contemporary biological science. Major areas will include the biochemistry of energy transformation, cell structure and function, Mendelian, molecular and population genetics, development and differentiation, evolution and ecology.

2) Learning Objectives:

1. Learn, remember and understand the most basic concepts and processes of biological systems, from cells to ecosystems.
2. Prepare students for other courses in the pre-allied health curriculum, especially microbiology (Biol 275) and Anatomy & Physiology (Biol 251 & Biol 252).
3. Explore the great diversity of plant, animal and microbial life around us.

3) Academic Honesty:

All work in this course is covered by UMBC policies on academic misconduct. Students engaged in academic misconduct on an exam or assignment will be reported to the Academic Conduct Committee (http://www.umbc.edu/undergrad_ed/ai/documents/ACC2011.pdf) in accordance with UMBC policies, and will at a minimum receive a grade of zero on that assignment, and will risk receiving an F in the course or being dismissed from the university. In particular, students should take care to avoid plagiarism, which is failure to put other's words in quotes, or failure to cite sources. See this link (esp.p.1). http://writing.wisc.edu/Handbook/Acknowledging_Sources.pdf Plagiarism is a serious offense, and it will not be tolerated. Failure to properly acknowledge other people's words, information or ideas has had serious consequences for students in this course in the recent past.

4) Course Policies:

- Come to class on time and be ready to start as soon as class begins.
- Be sure to read related material and complete homework well BEFORE class begins.
- Be an active learner and participate fully in all aspects of the course, including lecture and group activities. Do not be content to let others in your group do the work for you.
- **Turn off your cellphones in class.** Be considerate of your classmates.
- We encourage minimal computer in class, and **ONLY** for course-related activity. Students who plan to use computers should sit at the back or sides of the room to minimize distractions.

Anyone caught using computers for non-coursework related activities will be docked participation points and may lose the privilege of being able to use computers during class time.

5) Assessment:

a) Methods of instruction

The basic information of the course will be presented through textbook readings, homework exercises, lectures on major topics, and group-based learning exercises designed to help enforce retention and understanding of the course material. Class attendance is **MANDATORY** and prompt arrive is crucial. For all class activities, including tests and group work, no additional time will be given to students who arrive late without a legitimate reason for their tardiness. Note that traffic problems are NOT considered a legitimate excuse so please give yourself lots of extra travel time on exam days.

b) In-class meeting time:

We will meet in UC 115 for four hours a week for lectures and group exercises. This face-to-face time has a **MANDATORY** attendance, so please make sure to show up on time, prepared to work. This preparation includes completing the assigned homework well in advance, and submitting it **ON TIME** (generally, 8am on the day of class, unless otherwise instructed).

c) Homework

Ten homework assignments will be due throughout the course. These assignments will be located on our blackboard site, and must be submitted there (you can find the instructions for submission of homework online as well). These assignments will reinforce concepts learned in class and help students prepare for upcoming material. Homework will be due at specific times (you will be apprised of deadlines in class, and the homework assignments will have the deadlines outlined on blackboard as well). Homework handed in after the deadline will be assessed a late penalty as outlined in **Grading Policies**, below. The lowest two homework assignments will be dropped from this portion of your final grade.

d) Group-based learning exercises

All students will work in teams to explore the core material through group-based exercises aimed at promoting deep thinking about the concepts introduced in this course. To encourage student

participation in their groups, students will have the opportunity to complete peer-evaluations assessing their group mates' preparation, productivity, and overall helpfulness in the group setting. This participation evaluation will account for 10% of student grades.

e) Exams

Exams will be based on lectures, readings, homework and group exercises. They will consist of multiple choice, short answer and problem-solving questions. There will be NO cumulative final exam in this course, with each exam covering roughly one third of the course material instead. Makeup exams will ONLY be permitted with a valid, UMBC-accepted, excuse and will be given on a mutually agreeable date. You WILL need to bring documented proof of your excuse (such as a doctor's note) with you to verify your excuse. If no arrangements have been made within **48 hours** of a missed exam (note, this means contacting your instructors to explain your absence AND schedule a makeup exam), a score of zero will be given and no makeup exam will be permitted.

f) Grading policies

Attendance: Students are responsible for all material that is presented in class. If you miss a class, you are strongly advised to obtain the notes and assignments from another student. Participation in group activities will be an important factor in determining borderline grades, so attendance (and participation) is strongly advised.

Category	Percent
Exam 1	20%
Exam 2	20%
Exam 3	20%
Homework (best 8 out of 10)	30%
Group participation (peer evaluations)	10%

Late assignments will be penalized by 20% per day unless the student provides documented proof of the reason for their tardiness. Work that is turned in on the day the work is due, but after the given deadline, is considered LATE and will incur a one-day penalty.

One week "Statute of Limitations": All grading questions about exams, homework, quizzes, group exercises, etc. must be addressed within one week of the scores being posted online or handed out in class. After this time, no changes will be made to existing grades unless there is a calculation error. Thus, it is essential that you check your grades regularly and contact your instructor within one week if you feel an error has been made or if you are unsure why you lost points.

Grade Cutoffs:

Letter Grade	Percent Needed
A	90% to 100%
B	80% to 89%
C	70% to 79%
D	60% to 69%
F	0% to 60%

Schedule & Assigned Readings

BIOL101: Concepts of Biology

Instructors: Dr. Nandadevi Cortes Rodriguez and Dr. Rachel Sturge

Lectures: Mon, Wed, Friday 1:00 – 2:50pm U.C. 115

Readings from “Campbell Essential Biology” 5th edition, Simon et al.

<u>Week</u>	<u>Date</u>	<u>Topic</u>	<u>Reading</u>
1	May 27	Introduction & chemistry of life	Chapters 1 & 2
	May 29	Organic molecules & the cell	Chapters 3 & 4
2	June 3	Energy, ATP & cellular respiration	Chapters 5 & 6
	June 5	EXAM I	
3		Cellular reproduction	Chapter 8
	June 10	Inheritance & genetics	Chapter 9
	June 12	DNA structure & function	Chapter 10
4	June 17	Evolution	Chapters 13 & 14
	June 19	EXAM II	
5		Origins of life	Chapter 15
	June 24	Diversity of life	Chapters 16 & 17
	June 26	Ecology & Biomes	Chapter 18
6	July 1	Populations	Chapter 19
	July 3	EXAM III	