



A M B R O S E

**BIO 105 THE ORGANIZATION AND DIVERSITY OF LIFE (3)
FALL 2012**

Course Description

This course studies biological concepts and mechanisms using current examples from medicine and the environment.

Further Course Information

This course is NOT open for credit to Majors or Minors in Biology or Natural Science. Credit for both Biology 105 and 131 will not be allowed.

Class Schedule

Meeting Times: Tuesdays and Thursdays 9:45-11:00

Meeting Room: A2141

Instructor

Dr. Aaron L. Alford

Office: A2160

Phone: (403) 410-2000, ext. 5940

Email: aalford@ambrose.edu

Textbook (required)

Campbell, N. A., Reece, J.B., and M. R. Taylor. 2008. *Biology: Concepts & Connections*, 6th Edition. Benjamin Cummings, Toronto.

Attendance

Regular attendance will be essential for success on all exams and assignments. No points will be subtracted from the grade for non-attendance. However, some assignments (lecture review quizzes; see below) cannot be made up if missed.

Course Outline

- I. Unit 1
 - a. Fundamentals of Biology
 - i. The Scientific Method/Biodiversity
 - ii. Evolution and Ecology
 - iii. Biochemistry/Organic Molecules
 - b. Reactions of Life
 - i. Cell Structure and Function
 - ii. Photosynthesis
 - iii. Cellular Respiration

- II. Unit 2
 - a. Diversity and Unity of Life
 - i. Evolution and Natural Selection
 - b. Domains of Life
 - i. Bacteria
 - ii. Archaea
 - iii. Eukarya
- III. Unit 3
 - a. Reproduction and Heredity
 - i. Cell Division
 - ii. DNA, RNA, and Protein
 - iii. Genes and Inheritance
 - b. Form and Function
 - i. Kingdom Animalia
 - ii. Kingdom Plantae
 - c. Ecology
 - i. The Biosphere
 - ii. Ecology and Conservation

Expected Learning Outcomes

This course will allow students to increase their understanding of fundamental biological principles and to apply these principles in a variety of systems. Students also will gain a greater appreciation for the utility of the scientific method in our expanding knowledge of biology.

Course Requirements

Assignments

All exams and assignments are announced and/or scheduled in advance. Assignments are due at the designated time; late work will not be graded.

1. Midterm exams are objective, utilizing a variety of formats including multiple-choice, matching, true/false, completion, short answer, and essay questions. Approximately one-fourth of the final will be comprehensive.
2. Lecture review quizzes are short exercises completed at the beginning of lecture. Quizzes are based on recent lectures and are designed to help students regularly review the lecture material. A random lecture review quiz will be collected during each course unit, and will count for extra credit. **Missed lecture review quizzes cannot be made up.**
3. The final exam will have a structure similar to the midterm exams, with a combination of question formats. The bulk of the final exam will cover new material, but a proportion of the exam will consist of comprehensive material. Further details regarding this comprehensive material will be forthcoming.

Please note: Students may request revised final exams if they have three exams in one 24-hour period or two exams at the same time. Final exam schedule revision request forms are available at the Registrar's Office and must be handed in by Monday, October 29, 2012 (Fall semester) or Monday, March 4, 2013 (winter semester). If you do not have your request in by this date, all exams within a 24-hour period will have to be written as scheduled. If you have two exams at the same time, you will be given four hours to write both exams. Graded final examinations will be available for supervised review at the request of the student. Please contact your instructor.

Point Distribution

Activity	Points	Percent of Grade
Lecture Exams	200	40%
Lecture Review Quizzes	100	20%
Class Activities	100	20%
Final Exam	100	20%
Total	500	100%

Grading Scale

A	93-100%	C	73-76%
A-	90-93%	C-	70-73%
B+	87-89%	D+	67-69%
B	83-86%	D	60-66%
B-	80-83%	F	<60%
C+	77-79%		

Please note: An appeal for change of grade on any course work must be made to the course instructor within one week of receiving notification of the grade. An appeal for change of final grade must be submitted to the Office of the Registrar in writing within 30 days of receiving notification of the final grade, providing the basis for appeal. A review fee of \$50.00 must accompany the appeal to review final grades. If the appeal is sustained, the fee will be refunded.

Important Notes

Electronic Etiquette

Students are expected to treat their instructor, guest speakers, and fellow students with respect. It is disruptive to the learning goals of a course or seminar and disrespectful to fellow students and the instructor to engage in electronically-enabled activities unrelated to the class during a class session. Please turn off all cell phones and other electronic devices during class. Laptops should be used for class-related purposes only. Please do not use iPods, MP3 players, or headphones. Do not text, read or send personal emails, go on Facebook or other social networks, search the internet, or play computer games during class. The professor has the right to disallow the student to use a laptop in future lectures

and/or to ask a student to withdraw from the session if s/he does not comply with this policy. Repeat offenders will be directed to the Dean. If you are expecting communication due to an emergency, please speak with the professor before the class begins.

Academic Policies

It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Student Handbook and Academic Calendar. Personal information, that is information about an individual that may be used to identify that individual, may be collected as a requirement as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at privacy@ambrose.edu.

Extensions

Although extensions to coursework in the semester are at the discretion of the instructor, students may not turn in coursework for evaluation after the last day of the scheduled final examination period unless they have received permission for a “Course Extension” from the Registrar’s Office. Requests for course extensions or alternative examination time must be submitted to the Registrar’s Office by the appropriate deadline (as listed in the Academic Calendar <http://www.ambrose.edu/publications/academiccalendar>). Course extensions are only granted for serious issues that arise “due to circumstances beyond the student’s control.”

Academic Integrity

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Academic dishonesty is taken seriously at Ambrose University College as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else’s ideas, words, or work as one’s own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets to give credit to another person’s ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university college. Students are expected to be familiar with the policies in the current Academic Calendar and the Student Handbook that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean and become part of the student’s permanent record.

Students are strongly advised to retain this syllabus for their records!

Course Schedule (tentative)

Month	Week	Date	Topic	Book Chapter(s)
Sep	1	3		
		4		
		5	Classes Begin	
		6	Scientific Method/Biodiversity	1
		7		
	2	10		
		11	Evolution and Ecology	1, 13, 34
		12		
		13	Biochemistry/Organic Molecules	2, 3
		14		
	3	17		
		18	Cell Structure and Function	4, 5
		19		
		20	Photosynthesis	7
		21		
	4	24		
		25	Cellular Respiration	6
		26	Spiritual Emphasis Days (no classes)	
		27	Spiritual Emphasis Days (no classes)	
		28		
Oct	5	1		
		2	Catchup/Midterm Review	
		3		
		4	Midterm 1	
		5		
	6	8	Thanksgiving Day (no classes)	
		9	Evolution and Natural Selection	13, 15
		10		
		11	Evolution and Natural Selection	13, 15
		12		
	7	15		
		16	Domains of Life: Bacteria and Archaea	1, 16
		17		
		18	Domains of Life: Eukarya ("protists" and plants)	16, 17
		19		
	8	22		

		23	Domains of Life: Eukarya (fungi)	17
		24		
		25	Domains of Life: Eukarya (animals)	18, 19
		26		
		29		
	9	30	Catchup/Midterm Review	
		31		
Nov		1	Midterm 2	
		2		
		5		
	10	6	Reproduction and Cell Division	8
		7		
		8	DNA, RNA, and Protein	10
		9		
		12	Remembrance Day (no classes)	
	11	13	Genes and Inheritance	8, 10
		14		
		15	Genes and Inheritance	8, 10
		16		
		19		
	12	20	Animal Form and Function	20
		21		
		22	Plant Form and Function	31
		23		
		26		
	13	27	The Biosphere	34
		28		
		29	Ecology and Conservation	37, 38
		30		
Dec	14	3		
		4	Catchup/Final Review	
		5		
		6		
		7		
		10		
	15	11		
		12		
		13	Final Exam: 1:00 pm, Room A2131	
		14		