



**BIO 105 THE ORGANIZATION AND DIVERSITY OF LIFE (3)
FALL 2013**

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: Wednesdays and Fridays 9:45-11:00
Meeting Room: A2131

Instructor

Dr. Aaron L. Alford
Office: A2160
Phone: (403) 410-2000, ext. 5940
Email: aalford@ambrose.edu

Textbook (required)

Simon, E. J., Dickey, J. L., and J. B. Reece. 2013. Campbell Essential Biology with Physiology, 4th Edition. Pearson, Toronto.

OR

Campbell, N. A., Reece, J.B., and M. R. Taylor. 2008. Biology: Concepts & Connections, 7th 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. Fundamentals of Biology
 - A. What is Life/ What is Science?
 - B. Biochemistry/Organic Molecules
 - C. Cell Structure and Function

II. Unity of Life

A. Genetics

1. Cell Division
2. Inheritance
3. DNA and Biotechnology

B. Evolution and Natural Selection

III. Diversity of Life

A. Domains of Life

1. Bacteria
2. Archaea
3. Eukarya

B. Animal Structure and Function

1. Digestion
2. Circulation and Respiration
3. Immunity
4. Endocrine System
5. Reproduction
6. Nervous and Locomotor Systems

IV. The Biosphere

A. Individuals

B. Populations

C. Communities and Ecosystems

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; please see the late policy below for additional information about late work.

1. Written exams are objective, utilizing a variety of formats including multiple-choice, matching, true/false, completion, short answer, and essay questions.
2. A number of in-class activities will be completed over the course of the term. These include but are not limited to quizzes, case studies, group work, and discussion of scientific journal articles. The format of each assignment will vary according to the topic and the course needs. Lecture review quizzes (LRQs) represent one of these activities. LRQs are short exercises completed at the beginning of lecture that are based on recent course material, and are designed to help students better prepare for exams. Missed LRQs cannot be made up.

- The final exam will have a structure similar to the written exams, with a combination of question formats. Approximately 75% of the final exam will cover new material, whereas approximately 25% of the exam will consist of comprehensive material. Further details regarding this comprehensive material will be forthcoming.

Point Distribution

Activity	Percent of Grade
Lecture Exams	50%
Lecture Activities	25%
Final Exam	25%

Grading Scale

A+	97-100%	C+	67-69%
A	93-96% Excellent	C	63-66% Satisfactory
A-	89-93%	C-	60-62%
B+	83-89%	D+	54-59%
B	77-82% Good	D	50-53% Minimal Pass
B-	70-76%	F	Below 50% Fail

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

Revised Final Exam Times

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 28, 2013 (Fall semester) or Monday, March 3, 2014 (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.

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.

Late Policy

Over the course of term, we will be engaged in a number of projects that require both faculty-student and student-student collaboration. Often, these collaborations will culminate in assignments that will be turned in for a grade. Thus, it will be vital that all parties take responsibility for their part of these activities. As your instructor, I will provide clear objectives, adequate time, and necessary assistance for completing these assignments. As students, you will be responsible for working together and managing your time such that you are prepared for due dates. However, when circumstances prevent students from turning in individual assignments on time, the late policy will apply (see details below). The policy will cover all lecture-related activities. However, the late policy will not cover written exams or the final exam, both of which must be turned in on time.

Condition	Markdown
Assignment was turned in on the same calendar day* after the time it was due, or 1 calendar day after it is due	10%
Assignment is turned in 2 calendar days after it is due	20%
Assignment is turned in 3 calendar days after it is due	30%
Assignment is turned in 4 calendar days after it is due	40%
Assignment is turned in 5 calendar days after it is due	50%
Assignment is turned in >5 calendar days after it is due	100%

*Calendar days include both weekdays and weekends

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	Lecture Topic	Chapters
Sep	1	4	Introduction	
		5		
		6	What is Life?/What is Science?	1
	2	9		
		10		
		11	Chemistry and Organic Molecules	2, 3
		12		
		13	Cell Structure and Function	1, 5
	3	16		
		17		
		18	Cell Structure and Function/Exam 1 Review	6, 7
		19		
		20	Exam 1	
	4	23		
		24		
		25	Spiritual Emphasis Days (no classes)	
		26		
		27	Genetics: Cell Division	8
	5	30		
Oct		1		
		2	Genetics: Inheritance	9
		3		
		4	Genetics: DNA and Biotechnology	10, 11,
	6	7		
		8		
		9	Evolution and Natural Selection	1, 13
		10		
		11	Evolution and Natural Selection	14, 15
	7	14		
		15		
		16	Diversity of Life: Bacteria/Exam 2 Review	1, 15
		17		
		18	Exam 2	
	8	21		
		22		
		23	Diversity of Life: Bacteria/Archaea	15
		24		

		25	Diversity of Life: Eukarya	16
		28		
		29		
	9	30	Diversity of Life: Eukarya	17
		31		
Nov		1	Animal Structure and Function: Intro	21
		4		
		5		
	10	6	Animal Structure and Function: Digestion	22
		7		
		8	Animal Structure and Function: Circulation and Respiration	23
		11		
		12		
	11	13	Animal Structure and Function: Immunity/Exam 3 Review	24
		14		
		15	Exam 3	
		18		
		19		
	12	20	Animal Structure and Function: Endocrine System	25
		21		
		22	Animal Structure and Function: Reproductive System	26
		25		
		26		
	13	27	Animal Structure and Function: Nervous and Locomotor Systems	27
		28		
		29	The Biosphere: Intro and Individuals	18
Dec		2		
		3		
	14	4	The Biosphere: Populations	19
		5		
		6	The Biosphere: Communities and Ecosystems/Final Exam Review	20
		9	Last Day of Fall Classes	
		10		
	15	11	Final Exams (11-18 December)	
		12		
		13		