



BIO 105

THE ORGANIZATION AND DIVERSITY OF LIFE

Number of credits: 3

Prerequisite:

Semester: Fall, 2014

Days: WED / FRI - 11:15-12:30

Room: A1085

Lab – day: Not applicable

Lab–Room: Not applicable

Instructor: Graeme Gissing

Email: ggissing@ambrose.edu

Phone: 403-410-2000 x 5940

Office: G2204

Office hours: To be arranged in class and by appointment

Course Description:

This course studies biological concepts and mechanisms using current examples from medicine and the environment, the diversity of living organisms, the biochemistry of life, the cell, photosynthesis and cellular respiration, genetics, evolution and natural selection, the form and function of organ systems, and introduces key concepts in ecology.

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.

Expected Learning Outcomes:

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

Important Dates:

First day of classes: September 3, 2014

Registration revision period: September 14, 2014

Last day to request revised examination: October 27, 2014

Last day to withdraw from course: November 12, 2014

Last day to apply for time extension for coursework: November 24, 2014

Last day of classes: December 9, 2014

Final Exam: December 17, 2014

Time: 1:00 PM – 4:00 PM

Room: A2131

Outline:

I. Fundamentals of Biology

- Characteristics of Life, Scope and Process of Science (Week 01, Chapter 1)
- Essential Chemistry for Biology / Molecules of Life (Week 01, Chapters 2, 3)
- A Tour of the Cell / Cell Function / Photosynthesis (Week 02, Chapters 4, 5, 7)
- Cellular Respiration (Week 03, Chapter 6)

II. Genetics

- Cell Division – Mitosis and Meiosis (Week 03, Chapter 8)
- Structure and Function of DNA and Inheritance (Week 04, Chapters 9, 10)
- DNA and Biotechnology (Week 05, Chapters 12)

Lecture Exam 1 of 2 (Week 05, tentative, will depend on progress)

III. Evolution and Natural Selection (Week 06, Chapters 13, 14)

IV. Diversity of Life

- Bacteria and Archaea (Week 06, Chapter 15)
- Protists (Week 07, Chapter 15)
- Plants and Fungi (Week 07, Chapter 16)
- Animals (Week 08, Chapter 17)

V. Animal Structure and Function

- Introduction (Week 09, Chapter 21)

Lecture Exam 2 of 2 (Week 09, tentative, will depend on progress)

- Nutrition and Digestion (Week 10, Chapter 22)
- Circulation and Respiration (Week 10, Chapter 23)
- Immunity (Week 11, Chapter 24)
- Endocrine System (Week 11, Chapter 25)
- Reproductive System (Week 12, Chapter 26)
- Nervous and Locomotor Systems (Week 12, Chapter 27)

VI. The Biosphere and Ecology

- Biomes and Climate Change (Week 13, Chapter 18)
- Populations (Week 13, Chapter 19)
- Communities and Ecosystems (Week 14, Chapter 20)

Last scheduled class of Week 14 will be a free class for catch up and final exam review

Requirements:

Assignments, Exams, and Quizzes:

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.

Written exams are objective, utilizing a variety of formats including multiple-choice, matching, true/false, completion, short answer, and short essay questions.

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. Unannounced lecture quizzes represent one of these activities and are short quizzes completed at the beginning of lecture that are based on recent course material. They are designed to encourage students to keep up with the material and to help students prepare for exams. Missed lecture activities (including unannounced quizzes) cannot be made up and, if missed, will receive a grade of zero.

The final exam will have a structure similar to the written exams, with a combination of question formats. Approximately 50% of the final exam will cover new material, whereas approximately 50% of the exam will consist of comprehensive material. Further details regarding this comprehensive material will be forthcoming.

Submission of Assignments:

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 (calendar days include both weekdays and weekends)	Deduction
Assignment was turned in on the same calendar day after the time it was due, or the next calendar day (e.g. Due: Monday, handed in on Tuesday)	20%
Assignment is turned in 2 calendar days after it is due (e.g. Due: Monday, handed in Wednesday)	30%
Assignment is turned in 3 calendar days after it is due (e.g. Due: Friday, handed in on Monday)	40%
Assignment is turned in 4 calendar days after it is due (e.g. Due: Monday, handed in on Friday)	50%
Assignment is turned in 5 or more calendar days after it is due	100%

Attendance:

Regular attendance will be essential for success on all exams and assignments. No points will be subtracted from your grade for non-attendance. However, unannounced in-class assignments and unannounced in-class quizzes cannot be made up and, if missed, will receive a grade of zero.

Evaluation:

Activity	Percent of Grade
Lecture Exam I	20%
Lecture Exam II	20%
Unannounced Formative Lecture Quizzes (5)	15%
Assignments and/or Class Activities (3)	15%
Final Exam	30%

Grade Summary:

The available letters for course grades are as follows:

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

Because of the nature of the Alpha 4.00 system, there can be no uniform College-wide conversion scale. The relationship between raw scores (e.g. percentages) and the resultant letter grade will depend on the nature of the course and the instructor's assessment of the level of each class, compared to similar classes taught previously. Please note that final grades will be available on student registration system. Printed grade sheets are no longer mailed out.

Textbooks:

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

Policies:

All students have received an Ambrose e-mail account upon registration. It is the student's responsibility to check this account regularly as the Ambrose email system will be the professor's instrument for notifying students of important matters (Cancelled class sessions, extensions, requested appointments, etc.) between class sessions. If students do not wish to use their Ambrose accounts, it is highly recommended that they forward all messages from the Ambrose account to the other account.

During the **Registration Revision Period** students may to enter a course without permission, change the designation of any class from credit to audit and /or voluntary withdraw from a course without financial or academic penalty. These courses will not appear on the student's transcript. Courses should be added or dropped on the student portal by the deadline date, please consult the List of Important Dates. After that date, the original status remains and the student is responsible for related fees.

Students intending to withdraw from a course after the Registration Revision Period must apply to the Office of the Registrar by submitting a Request to Withdraw from a Course by the **Withdrawal Deadline**, please consult the List of Important Dates. Withdrawal from courses after the Registration Revision period will not be eligible for tuition refund. A grade of “W” will appear on the student’s transcript.

Students wishing to withdraw from a course, but who fail to do so by the applicable date, will receive the grade earned in accordance with the course syllabus. A student obliged to withdraw from a course after the Withdrawal Deadline because of health or other reasons may apply to the Registrar for special consideration.

Students, who find a conflict in their exam schedule must submit a **Revised Examination** Request form to the Registrar’s Office by the deadline date, please consult the List of Important Dates. Requests will be considered for the following reasons only: 1) the scheduled final examination slot conflicts with another exam; 2) three final exams within three consecutive exam time blocks; 3) the scheduled final exam slot conflicts with an exam at another institution; 4) extenuating circumstances. Travel is not considered a valid excuse for re-scheduling or missing a final exam.

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 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 deadline date, please consult the List of Important Dates. Course extensions are only granted for serious issues that arise “due to circumstances beyond the student’s control”.

Appeal of Grade

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.

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 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.
