AMBROSE UNIVERSITY COLLEGE | FACULTY OF ARTS & SCIENCE

BIOLOGY 131 – Introduction to Cellular Biology

Tentative Course Outline and Schedule for Fall semester, 2011.

Note : Credit for both Biology 131 and 105 will not be allowed.

Times: **Lectures:** Tuesdays / Thursdays, 1:00-2:15 pm, A2141
Labs: Tuesdays, 4:00 – 6:50 pm, A2151

Instructor : Dr. Carol Gibbons Kroeker
Office : A2156
Phone: 410-2000, ext 5910
Email: ckroeker@ambrose.edu

Text : Biology, Eight Edition
Campbell, NA and JB Reece,
Prentice- Hall (editions 6 or 7 are fine as well)

This is an introductory course in Biology, covering aspects of cell biology such as respiration and fermentation, photosynthesis, and DNA replication and translation. It will also introduce concepts in genetics and bacteriology.

Course Learning Objectives:

1. Students will gain a greater understanding of fundamental biological principles
2. Students will be able to discuss the evolutionary history, biological diversity and modern relationships between prokaryotes and eukaryotes
3. Students will learn laboratory techniques essential to research in biology-related fields.
4. Students will collaborate with peers to design and carry out a research project and be able to present this in written and oral formats

Mark Distribution :

2 Midterm Exams (in class)	40%
5 Lab Reports / Assign.	20%
Final Exam	40%
(Scheduled by registrar)	

This course consists of 3 hours of lectures per week, plus a 3-hour lab.

The midterm and final exam will be a combination of multiple choice questions, as well as short and long answer questions. While most questions will be based on lecture material, the textbook reading will absolutely help in the understanding of this material. Attendance at lectures is STRONGLY recommended and will help ensure success on course exams and assignments.

Dates	**Topic**	**Text Chapters**
Week of		
Sept. 5	Introduction to Biology 131 Scientific Method	1, 5
Sept. 12	Cellular basis of life and cell structure	6, 7
Sept. 19	Metabolism, energy, and life	8
Sept. 26	Fermentation and cellular respiration	9
Oct. 3	Respiration and photosynthesis	9, 10
Oct. 10	Photosynthesis and nutrient cycling Midterm I	10
Oct. 17	Cell cycle of prokaryotes and eukaryotes	12
Oct. 24	Genetic recombination in prokaryotes and Eukaryotes	13
Oct. 31	Genetics	14, 15
Nov. 7	DNA structure, replication, and cellular location Genome organization	16
Nov. 14	Midterm II /RNA translation in prokaryote and eukaryote mutations	17
Nov. 21	DNA transcription in prokaryotes and eukaryotes Control of gene expression Virology	17 18
Nov. 28	Host Microbe interactions	18
Dec. 5	Review	

Laboratory Schedule

Attendance at the laboratory sessions is COMPULSORY. Any lab missed without a valid excuse cannot be made up. A valid excuse (such as illness, death in the family etc.) must be validated by written proof from a doctor or counselor. Lab coats are not required but are strongly recommended. Labs will begin the week of September 14th. Laboratory topics covered with enhance course material.

The lab portion of this course will consist of 5 lab reports worth 4% each.

Sept.	Intro to Scientific investigation (Tutorial)
	Basic Microscopy – with forensics application
	Scientific Writing (Tutorial)
	Membranes and particle movement (Lab report)
Oct.	Enzyme Activity (Lab report)
	Cellular respiration
	Fermentation (Lab report)
Nov.	Photosynthesis
	Genetics I and II / Epigenetics (Lab report)
	DNA replication – case study lab
	Bacteriology (2 weeks) – Lab report

On the 3 weeks without a formal lab, there will be scheduled tutorials.

Grading Scheme

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

Important Notes/Dates:

The last day to enter a course without permission and /or voluntary withdrawal from a course without financial penalty – Friday, September 16, 2010

The last day to voluntarily withdraw from a course or change to audit without academic penalty – Friday, November 11, 2010

Please note that final grades will be available on your student portal. Printed grade sheets are no longer mailed out.

Classroom Etiquette:
It is expected that students will take an active role in the learning process. This includes: (a) regular class attendance, (b) reading course material in advance of class, and (c) engaging in discussions during class.

In respect to the professor and to your fellow students, we ask that you:

a) Turn your phone off during class and that you don't use it for texting during lecture or lab
b) Not have conversations with the people beside your during lecture – it is very distracting to the people around you
c) Use your laptops for lecture material and assignments only – that you are not using the internet or facebook during class time.
d) Arrive to lecture and lab on time
e) Don't come to class or lab with your ipod or equivalent.

These will help to maximize the learning experience for you and your fellow students (and will keep your professor in a good mood).

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.

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 Ambrose. Students are expected to be familiar with the policy statements 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.

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. 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.