



NAZARENE UNIVERSITY COLLEGE

BIO 205 The Organization & Diversity of Life

Winter, 2005

Instructor: Dr. Lorraine Anderson

Contacting the Instructor

Class Times: 7:00-10:00 pm Monday

Class Location: 501

Office Phone: 571-2550

Office: 502

Office Hours: By appointment

Email Address: landerson@auc-nuc.ca

loria@athabascau.ca

Course Description

This course is a study of biological concepts and mechanisms illustrated by current examples of medical and environmental problems.

We will review the basic principles of modern biology.

Note: Not open for credit to major and minors in the Department of Biological Science at the University of Calgary.

Course Objectives

Students should gain:

1. A greater understanding of the biological sciences.
2. A greater appreciation of how knowledge of biological sciences can benefit their lives.
3. A greater understanding of current biological issues that will continue to affect their lives and lives of future generations

Required Texts

Campbell, N.A. Mitchell, L.G. and Reece, J.B., *Biology: Concepts and Connections*. 3rd edition. Benjamin/Cummings: San Francisco, 2000.

Note: The Campbell textbook comes bundled with a CD-ROM study guide. The bookstore has a limited number of copies of the optional text for students who prefer a hard-copy study guide. It is intended that most students will use the CD-ROM Study Guide.

Optional, but helpful

Liebaert, R.M. "Student Study Guide for Biology : Concepts and Connections, 3rd edition"
Benjamin Cummings.

Course Requirements

There will be two midterm exams each making up 25% of the final mark. These exams will be held from 7:00 to 8:00 on the scheduled dates. A lecture will be held after the exam.

A two hour final exam worth 40% of the final mark .

It is expected that student will attend all lectures. A 10% **attendance and participation** grade will be given.

Course Schedule:

The pace of the course and the details of the material covered will be governed to some extent by the interest and the level of preparation of the students. The following is a guideline.

Date	Topic	Text Readings
September 8	Introduction	Chapter 1
	Chemical Basis of Life	Chapter 2
September 15	Molecules of Cells	Chapter 3
	Tour of the Cell	Chapter 4
September 22	Working Cell	Chapter 5
	How Cell Harvest Energy	Chapter 6
September 29	First Midterm	
	Photosynthesis	Chapter 7
October 6	Nutrition and Digestion	Chapter 21
	Cellular Basis of Reproduction and Inheritance	Chapter 8
October 13	Patterns of Inheritance	Chapter 9
	Molecular Biology of the Gene	Chapter 10
October 20	Control of Gene Expression	Chapter 11
	DNA Technology and the Human Genome	Chapter 12
October 27	Second Midterm	
D	NA Technology and the Human Genome (cont.)	Chapter 12
November 3	How Populations Evolve	Chapter 13
	The Origin of Species	Chapter 14
November 10	Tracing Evolutionary History	Chapter 15
	Human Evolution	Chapter 19
November 17	Nutrition and Digestion	Chapter 21
	The Immune System	Chapter 24
November 24	Population Dynamics	Chapter 35
	Behavioral Adaptations	Chapter 37
December 1	Review for Final Exam	
December 8	Final Exam	