



**BIO 205 *The Organization and the Diversity of Life* (3)
Fall 2000**

Instructor: Dr. Lorraine Anderson, Ph.D. **Office:** Room 506
Office Hours: T 4:00-7:00 **Office Phone:** 571-2550, ext 28
Class Times: Tues. evenings, 7:00-10:00 **Location:** Room 1
Email Address: loria@athabascau.ca
Course Webpage: <http://www.blackboard.com/courses/205Bio>

Required Text:

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 Text:

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

Course Description:

A study of biological concepts and mechanisms illustrated by current examples of medical and environmental problems.

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.

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 12	Introduction Chemical Basis of Life	Chapter 1 Chapter 2
September 19	Molecules of Cells Tour of the Cell	Chapter 3 Chapter 4
September 26	Working Cell How Cell Harvest Energy	Chapter 5 Chapter 6
October 3	First Midterm Photosynthesis	Chapter 7
October 10	Nutrition and Digestion Cellular Basis of Repro- duction Inheritance	Chapter 21 Chapter 8
October 17	Patterns of Inheritance Molecular Biology of the Gene	Chapter 9 Chapter 10
October 24	Control of Gene Expression DNA Technology and the Human Genome	Chapter 11 Chapter 12
October 31	Second Midterm DNA Technology and the Human Genome (cont.)	Chapter 12
November 7	How Populations Evolve Origin of Species	Chapter 13 Chapter 14
November 14	Tracing Evolutionary History Human Evolution	Chapter 15 Chapter 19
November 21	The Biosphere Population Dynamics	Chapter 34 Chapter 35
November 28	Communities and Ecosystems	Chapter 36

December 5

Conservation Biology
Review for Final Exam

Chapter 38

December 12

Final Exam

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 will be given during the regular lecture time on December 12.

All students will be required to submit a research project worth 10% of the final grade.

It is expected that student will attend all lectures.

For examination purposes, students will be held responsible for all lecture material described in the **STUDY GUIDE**, whether they are covered in lecture or in the readings. Exams will be taken ENTIRELY from the **STUDY GUIDE**. The format of the exam questions will be exactly the same as the questions found in the **STUDY GUIDE**.

Optional tutorials will be arranged by from time to time, primarily to prepare for the exams. I will try to arrange them at a time so most students can attend. Please feel free to call me at any reasonable time of the day if you have any difficulties or if you wish an appointment for questions or review.

Important Notes:

The Minimum Standards for Written Compositions will apply in this course. Please see me if you do not have a copy.

The last day to withdraw from the class without academic penalty is November 10, 2000. The last day to withdraw from this course and still receive a refund is September 29.