NAZARENE UNIVERSITY COLLEGE / ALLIANCE UNIVERSITY COLLEGE

COURSE INFORMATION SHEET

BIOLOGY 231 – Introduction to Cellular Biology

Tentative Course Outline and Schedule for Fall semester, 2005.

Note : Credit for both Biology 231 and 205 will not be allowed.

Instructor : Dr. Carol Kroeker
Office : 519A
Phone: 410-2000, ext 5910
Email:

Text : Biology, Seventh Edition
Campbell, NA and JB Reece,
Prentice- Hall

Note: An earlier edition of Campbell and Reece will be perfectly adequate for the 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 :

Midterm Exam	30%
Laboratory Reports	20%
Research Project	10%
Final Exam	40%

This course consists of 3 hours of lectures per week, plus a 2-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 will help ensure success on course exams and assignments.

Dates	**Topic**	**Text Chapters**

Week of		
Sept. 6	Introduction to Biology 231 Classification and evolution of living organisms	26
Sept. 12	Cellular basis of life and cell structure	8
Sept. 19	Cellular basis of life and cell structure	7
Sept. 26	Metabolism, energy, and life	6
Oct. 3	Fermentation and cellular respiration	9
Oct. 10	Respiration and photosynthesis	9, 10
Oct. 17	Photosynthesis and nutrient cycling	10
Oct. 24	Midterm Exam / Cell cycle of prokaryotes and eukaryotes	12
Oct. 31	DNA structure, replication, and cellular location Genome organization	16
Nov. 7	DNA transcription in prokaryotes and eukaryotes Control of gene expression	17
Nov. 14	RNA translation in prokaryote and eukaryote Mutations	17
Nov. 21	Genetic recombination in prokaryotes and Eukaryotes	13
Nov. 28	Virology	18
Dec. 5	Host Microbe interactions	18

Laboratory Schedule

At this time, a lab manual is not available. Hand-outs will be given out before the labs each week. Lab topics will include: Use of the microscope, microbiology, genetics, biotechnology, etc.

Attendance at the laboratory sessions is COMPULSORY. Any lab missed without a valid excuse cannot be made up. Lab coats are not required.

The lab portion of this course will consist of 3 lab assignments and 2 lab reports worth 4% each.

Grading Scheme

A	90-100%	C	63-65%
A-	80-89%	C-	60-62%
B+	77-79%	D+	54-59%
B	73-76%	D	50-53%
B-	70-72%	F	Below 50%
C+	67-69%		