CAMOSUN COLLEGE	***School of Arts & Science*** ***BIOLOGY DEPARTMENT*** **BIOL 100-001A/B** **Non-Majors Biology 1** **2007F**

COURSE OUTLINE

The Approved Course Description is available on the web @ _____

Ω *Please note: this outline will be electronically stored for five (5) years only. It is strongly recommended students keep this outline for your records.*

1. Instructor Information

(a)	Instructor:	Alison Moran		
(b)	Office Hours:	Th 10.30-12.30		
(c)	Location:	Fisher 340-D		
(d)	Phone:	370-3434	Alternative Phone:	
(e)	Email:	morand@camosun.bc.ca		
(f)	Website:	D2L: Biology 100: Non-Majors Biology 1 (Moran 001)		

Lecture: 01A/B Tu 9:30-10:20 in F-100
01A/B Th, F 9:30-10:20 in F-200
Lab: **Section A:** F 12:30-1:50 in F-244
Section B: F 2:00-3:20 in F-244

2. Intended Learning Outcomes

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

Upon completion of this course the student will be able to:

1. Work in a culture of scientific endeavor and use critical thinking skills.
2. Identify the critical roles played by water in the maintenance of life on earth.
3. Explain the structures and roles of biological macromolecules, particularly carbohydrates, proteins and lipids.
4. Describe the complexity and diversity of cellular ultrastructure and the functions of significant cellular organelles, in particular: chloroplasts, mitochondria, ribosomes, Golgi apparatus, cilia and flagellae.
5. Describe basic metabolism and energy producing pathways within the cell.
6. Explain the concept of the gene in the contexts of both Mendelian inheritance as well as the biochemical expression of genetic information.
7. Relate the structure of nucleic acids to the storage and replication of genetic information.
8. Explain the mechanisms used to regulate and translate genetic information into the assembly of functional proteins.
9. Describe the interactions between the environment and long-term changes in genetic information, particularly in consideration to neoplasia.
10. Describe the anatomy of the human digestive, cardiovascular and excretory systems and explain how the physiology of these organ systems is related to organization at the molecular and cellular level.

11. Describe the structure and explain the functions of the human immune system. Apply this knowledge to immune dysfunction, particularly allergies and AIDS.

3. Required Materials

(a) Texts: Audersirk, T., Audersirk, G., Byers, B.E. 2005. **Biology, Life on Earth with Physiology**. 8th edition. Prentice Hall
or Audersirk, T., Audersirk, G., Byers, B.E. 2005. **Biology, Life on Earth**. 7th edition. Prentice Hall

(b) Other: **BIOL 100 Laboratory Manual**

4. Course Content and Schedule

(Can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

The following schedule is tentative and subject to change if deemed necessary by the instructor.
Note: mid-terms are scheduled for the first lecture of the week, unless specified otherwise.

WK	DATE (week of)	LECTURE TOPICS	TEXT CH. *	LAB #	LAB TOPICS
1	Sept.3	Course Introduction Scientific Method Biochemistry Basics Water & pH	1 & 2		***No Lab***
2	Sept.10	Organic Macromolecules Cell Membranes & Transport	3 & 4	1	Introduction, Safety; Microscopes & Measurements
3	Sept. 17	Cell Biology	5	2	Eukaryotic &Prokaryotic Cells
4	Sept. 24	Energetics Enzymes	6	3	Diffusion & Osmosis
5	Oct.1	Photosynthesis Cellular Respiration	7 & 8	4	Enzymes
6	Oct. 8 Thanksgiving Day – Oct. 8	Replication Protein Synthesis Transcription/Translation Mutations	10		***No Lab***
7	Oct. 15	**MID-TERM** Cell Division (Mitosis, Meiosis & Cancer)	11	5 & App. 3	Mitosis: Onion Root & Genetics Problems
8	Oct. 22	Mendelian Genetics Sex-linked Traits	12		**LAB EXAM I**
9	Oct. 29	Inheritance Patterns Human Genetics	12	6 & App. 3	CATLAB
10	Nov. 5	Circulation	28	7	Nutrition
11	Nov. 12 Remembrance Day – Nov. 12	Circulation cont. Gas Exchange/Respiration	29	8	***No Lab***
12	Nov. 19	Nutrition Digestion	30	9	Human Organ Systems: Models
13	Nov. 26	Urinary System Immunity	31 & 32	10 = 9 cont.	Human Organ Systems: Models
14	Dec. 3	Catch-up & Review			**LAB EXAM II**

***** Chapters relate to **Biology, Life on Earth**. 7th edition.

Nov. 6 Last day to Withdraw
Exam Period Dec.10-15 + 17, 18 **Do not book flights!** Exam schedule out in Oct.

5. Basis of Student Assessment (Weighting)

(Should be linked directly to learning outcomes.)

Class participation assignments/quizzes	30%
Exams:	
Midterm	15%
Lab Exam I	15%
Lab Exam II	15%
Final Exam	25%

Science is a language and to give it meaning we need to use and practice its vocabulary. As such, class participation is a key component of this course. It will take the form of questions, presentations and discussions. At the end of each class, you will be given the class participation question for the following lesson. Students will be asked to present or explain their answers at the beginning of the next class. Each week one group will present a special assignment and design questions on their topic for the rest of the class to answer. You will also have regular on-line (open book) quizzes that will run through the D2L site.

Please bring a pen *and* pencil to all class and lab exams.

6. Grading System

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at **camosun.ca** for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	*Incomplete*: A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	*In progress*: A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. *(For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.)*
CW	*Compulsory Withdrawal:* A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**.
It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services and on the College web site in the Policy Section.

ADDITIONAL INFORMATION

General:

Be sure that you are familiar with the General Department Policies, which are stated in the lab manual. The student conduct code will also be observed.

Please note: Plagiarism will not be tolerated in any form, and may result in a "0".

No programmable devices are allowed in exams.

Each student is required to sign a Laboratory Safety Contract and give it to the instructor prior to commencing laboratory work in the course.

Attendance:

You are expected to attend all classes, and be on time. It is your responsibility to acquire *all* information given during a class missed, incl. notes, hand-outs, assignments, changed exam dates etc.

Missed exams or quizzes cannot be made up except in case of documented illness (doctor's note required). Lab attendance is *mandatory.*

Do not book trips until the exam schedule is finalized.

Labs:

A **1% *final grade* penalty** applies to any unexcused absence from lab. Frequent late attendance may count as an absence. Should you miss roll call at the beginning of lab, please identify yourself to the instructor as "late" or you may remain marked "absent." You need to attend labs and lab exams during your assigned section (A or B). Switching between sections on a permanent or temporary basis requires instructor's permission. Lab assignments can only be handed in for labs actually attended.

It is *absolutely* necessary to read through each exercise before coming to lab. Otherwise you may not be able to finish on time and may not be able to complete your lab correctly. Please bring a pencil and a few sheets of unlined and graph paper, in case drawings are required.

Assignments:

Unless otherwise stated, all assignments are due at the ***beginning*** of the lab/class of the due date. There is a **10%/day late penalty**. The format is expected to be professional, i.e. a neat, legible, clean copy. "Rough" drafts risk rejection and a subsequent late penalty. If the assignment is more than one page, **separate pages *must be stapled*** before you come to class.

Study Habits:

Biology 100 will require regular study and preparation ahead of each class. It is valuable to review your notes within 24 hours of each class, as that is a proven means of improving memory and retention of information. You should expect to spend at least 6 hours outside of scheduled class time in the preparation of assignments, answering on-line quizzes and for general studying. Study groups are a highly effective way of learning and the great discussions that you have in these groups just make biology even better!

Lecture notes will be provided on the D2L site in Power Point. You may prefer to download lectures ahead of time and then write your notes directly onto copies of the slides. Lecture notes must not be considered your sole source of information! They are merely a summary of the main points and you will need to write down additional information in each lecture. In addition, not all details can be covered in a lecture, and you may be required to prepare textbook material that is not discussed specifically in class. Please feel free to email me with questions or come and see me after class or during office hours. If a question is urgent, a specific appointment can be made.