



CAMOSUN COLLEGE
School of Arts & Science
Biology

BIOL 100, Non-Majors Biology I
Fall 2002

COURSE OUTLINE

1. Instructor Information

- (a) Instructor: W. Donald MacRae
- (b) Office hours: M (1:30-3:30), W (9:30-10:30, 11:30-12:30), R (10:30-12:30) and by app't.
- (c) Location: F 340B
- (d) Phone: 370-3430
- (e) E-mail: dmacrae@camosun.bc.ca
- (f) Website: www.camosun.bc.ca/~dmacrae

2. Intended Learning Outcomes (Official Approval Pending)

- a) Describe the general properties of life.
- b) Explain how knowledge is accumulated scientifically and provide an overview of how this is organized.
- c) Use the experimental method to observe natural phenomena and construct and test hypotheses.
- d) Describe the relationship between matter, energy and information with respect to living organisms and outline the importance of metabolism to life, giving specific examples.
- e) Describe the structure of the molecules that make up living organisms.
- f) Explain the importance of the cellular organization of living organisms and describe the structure and general functions of cells.
- g) Describe the different forms of cell division and explain their function in the organism and role in evolution.
- h) Outline the principles of inheritance and explain how they depend on the behaviour of molecules.
- i) Describe the basic structure of the animal body and explain the relationship between general form and function
- j) Describe how animals carry out exchange of materials with the environment and detail the structure and specific functions of the circulatory, respiratory and digestive systems that are involved.
- k) Critically evaluate claims pertaining to the topics covered in this course.

3. Required Materials

- (a) Text Johnson, George, B. (2000). **The Living World**. McGrawHill Companies, Inc.
- (b) Lab Manual Biology 100 (Non-Majors Biology 1) Laboratory Manual and Supplementary Materials, Camosun College.

4. Course Content and Schedule

Lectures: MWF, 10:30-11:20

Lab: W, 2:30-5:20 on alternate weeks

DATE	TEXT CH.	LECTURE AND DISCUSSION	WEEK	LAB #	LAB TOPICS
Sept. 3-6	1 & 3	Course Introduction, The Chemistry of Life	1	1	Microscopes - group A
Sept. 9-13	3	Macromolecules,	2	1	Microscopes - group B
Sept. 16-20	3-4	Macromolecules, Membranes, Cells	3	2	Eukaryotic and Prokaryotic Cells – group A
Sept. 23-27	4-5	Cells, Energetics Cellular Respiration	4	2	Eukaryotic and Prokaryotic Cells – group B
Sept. 30 - Oct. 4	5	Cellular Respiration	5	3	Diffusion and Osmosis – group A
Oct. 7-11	6	MIDTERM I Cell Cycle and Cancer	6	3	Diffusion and Osmosis – group B
Oct. 14-18	6 7	Meiosis Mendelian Genetics	7		Lab Exam I – groups A and B
Oct. 21-25	7	Genetics continued	8	4	Properties of Enzymes – group A
Oct. 28 – Nov. 1	7	Genetics continued	9	4	Properties of Enzymes – group B
Nov. 4 - 8	22	Circulatory and Gas Exchange Systems	10	5	Introduction to Genetics – group A
Nov. 12-15	22 23	MIDTERM II Digestive System	11	5	Introduction to Genetics – group B
Nov. 18 – 22	23	Digestive System Excretion	12	6	Comparative Anatomy – group A
Nov. 25-29	24	Immune System	13	6	Comparative Anatomy – group B
Dec. 2-6		TBA	14		LAB EXAM II – groups A and B

3 hours of lecture/discussion and 3 hours of lab (on alternate weeks). Each student should plan on a minimum of 6 hours outside of scheduled class time for the completion of assignments and for general studying.

5. Basis of Student Assessment

(a/b) Assignments/Quizzes 20%

Assignments will consist of a series of pre-lab exercises for a total of 15% of the final mark as well as a series of five assessments based on popular literature. Details will be provided in class.

(c) Exams

Lab Exam I	12.5%
Midterm I	15%
Midterm II	15%
Lab Exam II	12.5%
Final Exam	25%

Midterms I and II will be unit exams. The final lecture exam will be comprehensive.

6. Grading System

The following percentage conversion to letter grade will be used:

A+ = 95 - 100%	B = 75 - 79%	D = 50 - 59%
A = 90 - 94%	B- = 70 - 74%	F = 0.0 - 49%
A- = 85 - 89%	C+ = 65 - 69%	
B+ = 80 - 84%	C = 60 - 64%	

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, Registrar's Office or the College web site at <http://www.camosun.bc.ca>

ACADEMIC CONDUCT POLICY

There is an Academic Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.

www.camosun.bc.ca/divisions/pres/policy/2-education/2-5.html

ADDITIONAL INFORMATION

Be sure that you are familiar with the General Department Policies which are stated in the lab manual and which will be discussed during the first scheduled laboratory. A student conduct code also will be observed and can be found in the Calendar on pages 42 - 48.

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

Lab attendance is **mandatory**. A 3% lab grade penalty may be imposed for unexcused lab absences.

Biology 100 includes lab work with dissection. Students who have questions or concerns regarding dissection must see the instructor prior to the end of the second week of classes.

No programmable devices are allowed in exams.

Students who have recently completed grade 12 Biology will notice an overlap of course content

McGraw Hill, the publisher of your textbook, has donated a prize of \$100 to be awarded to the Biology 100 student who has achieved the highest mark in the course.