



**School of Arts & Science  
BIOLOGY DEPARTMENT**

**BIOL 100-01, 100-4  
Non-Majors Biology 1  
2007W**

## 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:	Annette Dehalt, M.Sc		
(b)	Office Hours:	Posted on office door and on web site		
(c)	Location:	F248 D		
(d)	Phone:	370-3432	Alternative Phone:	
(e)	Email:	dehalt@camosun.bc.ca		
(f)	Website:	http://www.dehalt.disted.camosun.bc.ca		

### 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	1)Textbook: T Audesirk, Audesirk, G and Byers, B. 2008. Biology: Life on Earth with Physiology, 8 <sup>th</sup> ed., Pearson Education, San Francisco. 2) BIOL 100 Laboratory Manual
(b)	Other	

### 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 tentative schedule is 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 #	Week of	BIO 100 LECTURE TOPICS	TEXT CH.	BIO 100 LAB TOPICS
1	Jan. 7	Course Introduction; Characteristics & Organization of Life; Scientific Method	1	Introduction, Lab Safety
2	Jan. 14	Overview of Biology; Biochemistry Basics; Water	1, 2	1. Microscopes & Measurements
3	Jan. 21	<b>MID-TERM I Part A</b> (1st lec of wk) Organic Macromolecules; Types of Cells; Organelles;	--- 3, 4	2. Prokaryotic and Eukaryotic Cells
4	Jan. 28	Cell Membranes & Transport; Energy; Enzymes	5, 6	3. Diffusion & Osmosis
5	Feb. 4	<u>Summary</u> of Photosynthesis and Cellular Respiration	part of 7, 8	4. Enzymes
6	Feb. 11	<b>MID-TERM I Part B</b> (1st lec of wk) DNA; Replication; Mutation	--- 9	5. Mitosis: Onion Root (Feb. 14/15 Reading Break)
7	Feb. 18	Cell Division: Mitosis/Meiosis; Cancer	11	Review lab
8	Feb. 25	Protein Synthesis: Transcription & Translation	10	<b><u>LAB EXAM I</u></b>
9	Mar. 3	Medelian Genetics; Sex-linkage	12	7. CATLAB (in computer lab TBA)
10	Mar. 10	<b>MID-TERM II</b> (1st lec of wk) Digestion & Nutrition	--- 34	6. Human Genetics
11	Mar. 17	Circulation	32	8. Nutrition
12	Mar. 24	Gas Exchange/Respiration	33	9. Human Organ Systems: Models
13	Mar. 31	Excretion: Urinary System Immune System	35 36	10. Human Organ Systems: Models (10=9 cont.)
14	Apr. 7	Homeostasis; Tissue Types	31	<b><u>LAB EXAM II</u></b>
<b>FINAL EXAM during final exam period 4/14-22/08 (scheduled by registrar) – check CAMLINK. Do not make holiday plans during this period!</b>				

## 5. Basis of Student Assessment (Weighting)

(Should be linked directly to learning outcomes.)

(a) Assignments		15%	
(b) Quizzes		15%	
(c)	Exams	Midterm I	15% (part A: 5%, part B: 10%)
		Midterm II	15%
		Lab Exam I	15%
		Lab Exam II	15%
		Final Exam	25%
(d)	Other (eg, Attendance, Project, Group Work)		

Midterms and lab exams will be unit exams; the final exam will be comprehensive.

Midterm and final exams will be a mix of multiple choice and short answer questions.

Lab exams will consist of a series of "stations" consisting of equipment and/or specimens, with accompanying questions testing both practical and theoretical knowledge.

Please bring a pen *and* pencil (with eraser) to all 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 at [camosun.ca](http://camosun.ca) or information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> 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.

<b>IP</b>	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
<b>CW</b>	<i>Compulsory Withdrawal:</i> 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.

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.

## 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](http://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**

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**Academic Conduct:** Be sure that you are familiar not only with the Student Conduct Code (s.a.), but also with the General Department Policies, which are stated in the lab manual.

**Cheating or plagiarism will not be tolerated in any form, and may result in “0”.**

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

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

**Exams:** Exams have to be written when scheduled. There are no make-up exams during the term. **A missed exam results in “0” except in case of documented emergency or illness** (doctor’s note required stating that student is too sick to attend class during a specified time period). Valid documentation of illness/emergency needs be received within 1 week of the illness/emergency. With a valid excuse, the weighting of the missed exam will be added to the final exam, along with additional questions on untested course material. **Please bring a pen and soft pencil to all exams. No programmable devices are allowed in exams.**

**Labs:** 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 (except in cases of documented illness/emergency). You are encouraged to discuss assignments with your lab partner, however, **each assignment has to be your individual work – beware of plagiarism.** It is absolutely necessary to read and mentally **work through each exercise before coming to lab.** Otherwise you may not be able to finish on time, annoy your lab partner, or flunk a pre-lab pop quiz.

**Assignments:** Unless otherwise stated, all assignments are due at the ***beginning*** of the lab/class of the due date. There is a **15%/day non-negotiable late penalty** (rounded to the nearest full mark) except in cases of documented illness/emergency. Late assignments will **not** be accepted after marked assignments have been returned to the rest of the class. A **professional format** is expected, i.e. a neat, legible, clean copy. “Rough” drafts risk rejection and a subsequent late penalty or reduced marks. If the assignment is more than one page, separate pages **must be stapled.**

**Study Habits:** You will probably find this course not very difficult, but surprisingly labor-intensive. Good (and regular!!) study habits are required to do well in this course. You should plan on a **minimum of 6 hours** outside of scheduled class time for the completion of assignments and for general studying. Joining a study group can help this make more fun. Some “**study hints**” are posted on the course web site, and the college also offers study skill courses and individual consultations (s.a.).

Lecture notes will be provided in point form and posted on the web. These should be used as an outline, not as your sole source of information! You will need to write down additional notes of examples and explanations given during lecture. It is also recommended practice to transcribe these notes into a study-friendly format after each lecture, incorporating additional information from your textbook and other sources. Study these notes before the next class to prepare yourself for new material, which will often build on previously covered material.

Exam questions will be based on material covered or pointed out in class. However, studying additional details in the corresponding textbook sections will help you understand the material more thoroughly. It is not sufficient simply to memorize point-form notes! Please keep up with your readings, and take advantage of office hours if you need extra clarification and help, or simply would like to discuss a topic a little further.

