

# School of Arts & Science BIOLOGY DEPARTMENT

BIOL 080-01 Inquiry into Life 2006F

## **COURSE OUTLINE**

## The Approved Course Description is available on the web @

 $\Omega$  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) | (b) Office Hours:                       | <b>drop-in</b> : M 2:30-3:20, T 10:30-12:20, W 9:30-10:20 & 2:30-3:20 |                    |  |
| (-) | • · · · · · · · · · · · · · · · · · · · | and by appointment when necessary                                     |                    |  |
| (c) | Location:                               | F344 D  |                    |  |
| (d) | Phone:                                  | 370-3506  | 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. Describe cellular structure and explain cellular processes such as respiration and protein synthesis.
- 2. Discuss cancer and genetic engineering in the context of cellular processes.
- 3. Describe the structure and function of the human digestive system, cardiovascular system, respiratory system, nervous system, urinary system, and reproductive system.

## 3. Required Materials

| (a) | Texts | 1) Textbook: Enger, E, F Ross and D Bailey. 2007. <b>Concepts in Biology</b> , 12 <sup>th</sup> ed. McGraw-Hill, Boston.  2) BIOL 080 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 | DATE<br>(week of)      | BIO 080 LECTURE<br>TOPICS  | TEXT<br>CH. #<br>(all or<br>part) | BIO 080 LAB<br>TOPICS   |
|----|------------------------|--|-----------------------------------|---|
| 1  | Sept. 4<br>(Labor Day) | Course Introduction: Biology Overview; Scientific Method                                 |                                   | NO LAB – alternate activity   |
| 2  | Sept. 11               | Organic Macromolecules:<br>Carbohydrates, Proteins,<br>Nucleic Acids, Lipids             | 3                                 | Lab Safety;     Metric Measurements   |
| 3  | Sept. 18               | Cells & Organelles;<br>Membrane Transport  | 4                                 | 2. Organic Macromolecules   |
| 4  | Sept. 25               | Enzymes<br>Cellular Respiration  | 5<br>6                            | Microscopy and Cell     Structure   |
| 5  | Oct. 2                 | MID-TERM I (1st lec of wk)  DNA & RNA; Genetic Code                                      | 8                                 | 5. Diffusion and Osmosis  |
| 6  | Oct. 9<br>(Thanksg.)   | Protein Synthesis:<br>Transcription & Translation<br>Cell Division:<br>Mitosis & Meiosis | 8                                 | NO LAB – alternate activity Lab 3. Protein Synthesis = take home assignment |
| 7  | Oct. 16                | Cancer<br>Genetic Engineering  | 9<br>11                           | LAB EXAM I<br>(during regular lab time)                                     |
| 8  | Oct. 23                | MID-TERM II (1st lec of wk)  Cardiovascular System Lymphatic System                      | 24                                | 6. Enzymes  |
| 9  | Oct. 30                | Respiratory System   | 24                                | 7. Cardiovascular Fitness   |
| 10 | Nov. 6                 | Digestive System Nutrition   | 24<br>25                          | 10. Nutrition   |
| 11 | Nov. 13<br>(Remembr.)  | Excretory (Urinary) System   | 24                                | NO LAB – alternate activity   |
| 12 | Nov. 20                | MID-TERM III (1st lec of wk)  Nervous System   | 26                                | 8. Human Organ Systems:<br>Models   |
| 13 | Nov. 27                | Reproductive System  | 27                                | 9. Human Organ Systems:<br>Models (9=8 cont.)                               |
| 14 | Dec. 4                 | Review   |                                   | LAB EXAM II<br>(during regular lab time)                                    |

FINAL EXAM during final exam period: Dec. 11-19, 2006 (scheduled by registrar) do <u>not</u> make holiday plans during this period!

# 5. Basis of Student Assessment (Weighting)

(Should be linked directly to learning outcomes.)

| (a) | Assignments | 15% |
|-----|-------------|-----|
| (b) | Quizzes     |     |

| (c) | Exams   | Midterm I Midterm II Midterm III Lab Exam I Lab Exam II Final Exam | 12%<br>12%<br>12%<br>12%<br>12%<br>25% |  |
|-----|---|--|--|--|
| (d) | Other<br>(eg, Attendance,<br>Project, Group Work) |  |  |  |

Midterms and lab exams will be unit exams; the final exam will be <u>comprehensive</u>. 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 |
|------------|-------|--------------------------------------|-------------------------|
| 95-100     | A+    |                                      | 9                       |
| 90-94      | Α     |                                      | 8                       |
| 85-89      | A-    |                                      | 7                       |
| 80-84      | B+    |                                      | 6                       |
| 75-79      | В     |                                      | 5                       |
| 70-74      | B-    |                                      | 4                       |
| 65-69      | C+    |                                      | 3                       |
| 60-64      | С     |                                      | 2                       |
| 50-59      | D     |                                      | 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** or information on conversion to final grades, and for additional information on student record and transcript notations.

| Temporary<br>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.   |
| IP                 | In progress: 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.   |
| 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. |

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 <a href="mailto:camosun.ca">camosun.ca</a>.

#### 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.

Prerequisites: English 10 or assessment. *Math 10 recommended*.

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

<u>Exams</u>: 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). If possible, contact the instructor <u>prior</u> to the exam being missed. 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.

<u>Labs</u>: 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). 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. Please also come prepared with 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 <u>beginning</u> of the lab/class of the due date. There is a **10%/day non-negotiable late penalty** (rounded to the nearest full mark) except in cases of documented illness or emergency. Late assignments will <u>not</u> be accepted after marked assignments have been returned to the rest of the class one week after the due date. 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**.

<u>Study Habits</u>: 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 <u>minimum</u> 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 my web site, and the college also offers study skill courses and individual consultations.

Lecture notes will be provided in point form and posted on the web. These should be used as a guide line, 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 only on material covered 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.