



## COURSE OUTLINE

The course description is online @ <http://camosun.ca/learn/calendar/current/web/biol.html>

Ω Please note: the College electronically stores this outline for five (5) years only.  
It is **strongly recommended** you keep a copy of this outline with your academic records.  
You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

### 1. Instructor Information

(a)	Instructor:	Jennifer Giuliani
(b)	Office Hours:	Mondays and Wednesdays, 1:00-1:20pm (office hours) and 3:00-3:20pm CC124B (tutorial) Also by appointment, especially on Tuesday mornings, or Mondays and Wednesdays before/after class.
(c)	Location:	Office location: CC118A Tutorial location: CC124B (across the hall)
(d)	Phone:	250-370-3837
(e)	Email:	<a href="mailto:GiulianiJ@camosun.bc.ca">GiulianiJ@camosun.bc.ca</a>
(f)	Website:	D2L (login at <a href="http://online.camosun.ca/">http://online.camosun.ca/</a> )

### 2. Intended Learning Outcomes

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

1. Describe the concept of homeostasis and explain how it operates in the major physiological systems of the human body.
2. Describe the functioning of the major physiological systems of the human body at the cellular and systemic levels.
3. Explain the interactions between the major physiological systems of the body particularly as these interactions pertain to exercise and health.
4. Apply anatomical vocabulary in a physiological context.
5. Apply basic laboratory skills in the collection of physiological data (e.g., measuring, pipetting, handling of chemicals, data collection, data presentation, lab safety).
6. Utilize critical thinking to apply physiological concepts to specific problem-solving situations in the context of scientific method.

### 3. Required Materials

- (a) Texts
1. Human Physiology, from Cells to Systems, *Sherwood*, 8<sup>th</sup> edition
  2. *Biology 144: Human Physiology for Sport Education, Lab Manual*
- (b) Other
- Lab Coat

### 4. Course Content and Schedule

Labs:

Section X01A – Mondays, 8:30 – 11:20am, Tech230  
Section X01B – Wednesdays, 8:30 – 11:20am, Tech 230

Lectures:

Mondays, 1:30 – 2:50pm, CC124B  
Wednesdays, 1:30-2:50pm, CC124B

\*\*Please see p. 4-5 of this course outline for a detailed schedule of lab and lecture topics.

## 5. Basis of Student Assessment (Weighting)

Midterm 1	15%
Midterm 2	15%
Assignments (described in class)	20%
Term Paper	10%
Lab exam	10%
Final exam	30%

Note: Details of assignments will be announced in class. You are encouraged to write those details in the space provided below.

## 6. Grading System

(No changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College 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](http://camosun.ca) for 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.
IP	<i>In progress:</i> 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 3 <sup>rd</sup> course attempt or at the point of course completion.)
CW	<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.

## 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 the College web site in the Policy Section.

## 8. Student Responsibilities

1. Students are expected to hand in any required assignments on time. Assignments are due at the **beginning** of the class period on the due date. Assignments not handed in at the beginning of class will be considered late, for which there is a 10% penalty/day.
2. Attendance correlates highly with academic success. If unable to attend a lecture or lab session, the student is responsible for arranging with a classmate to obtain information such as notes, handouts and announcements.
3. Examinations must be written as scheduled except in the case of illness or emergency. The student must notify the instructor **in advance** of the examination. Documentation acceptable to your instructor is required to schedule a make-up exam. **Vacation, work or travel plans do not constitute an emergency and exams will not be rescheduled**
3. Any evaluation of work for in-class assignments or lab assignments, reports and/or participation will not be given if a student is not present in class or lab.
4. Quizzes will be written at the beginning of class; if you are late for class you may not be allowed to write the quiz
5. Students are expected to work independently on assignments unless the evaluation is based on group effort. Please see *Student Conduct Policy* above.

## 9. Concerning spelling

Mastering the usage of anatomical and physiological terminology will be important to you for several reasons. Correct usage (pronunciation and spelling) will

- foster self confidence
- help to earn the respect of your professional colleagues
- reduce the chances of practical mistakes which may cause harm or embarrassment. (consider the difference between the terms **peroneal** and **perineal** or **ileum** and **ilium**)

You will be expected to use acceptable pronunciation and correct spelling for presentations, assignments and exams. **Penalties for spelling errors will be applied.** If writing is illegible, no marks will be given.

## COURSE SCHEDULE - WINTER 2014

The following schedule is a tentative outline of lectures and laboratories. It is subject to change as the need arises. Changes will be announced in class and posted on D2L.

WEEK/DATE	LECTURE TOPIC	TEXT CHAPTER	LAB
1. Jan 6-10	<b>Intro to Cellular physiology</b> <ul style="list-style-type: none"> <li>• homeostasis</li> <li>• organic macromolecules</li> </ul>	Ch 1 Appendix A	Lab 1: Intro to Laboratory Science
2. Jan 13-17	<b>Intro to Cellular physiology (cont'd)</b> <ul style="list-style-type: none"> <li>• cell membrane structure</li> <li>• transport mechanisms</li> <li>• enzymes</li> </ul>	Ch 3	Lab 2: Intro to Chemical Concepts
3. Jan 20-24	<b>Digestive Physiology</b> <ul style="list-style-type: none"> <li>• chemical digestion - enzymes</li> <li>• absorption - chemicals, routes, locations</li> <li>• neural and hormonal controls</li> <li>• gastrointestinal function during exercise</li> </ul>	Ch 16	Lab 3: Digestion of Organic Molecules
4. Jan 27-31	<b>Metabolism</b> <ul style="list-style-type: none"> <li>• carbohydrate metabolism</li> <li>• lipid and protein metabolism</li> <li>• interconversion of molecules</li> <li>• energy transfer in exercise</li> <li>• absorptive and postabsorptive states, hormonal control</li> </ul>	Ch 17 Appendix A (review)	Lab 4: Cellular Respiration and Glucose Monitoring
5. Feb 3-7	<b>MIDTERM 1</b> <b>Neural Physiology</b> <ul style="list-style-type: none"> <li>• membrane potentials</li> </ul>	Ch 4	Lab 5: Cranial Nerve and Reflex Testing
6. Feb 10-14  Feb 10 Feb 13 & 14	<b>Neural Physiology (cont'd)</b> <ul style="list-style-type: none"> <li>• synapses and neurotransmitters</li> <li>• neural integration</li> <li>• reflex pathways</li> </ul> <b>READING BREAK</b> (Thursday & Friday)	Ch 4 (cont'd) Ch 5,6	<b>(NO LABS)</b>
7. Feb 17-21	<b>Muscle Physiology</b> <ul style="list-style-type: none"> <li>• neuromuscular junction</li> <li>• sliding filament contraction theory</li> </ul>	Ch 7 Ch 8	Lab 6: Sensory perception (Ch 6)
8. Feb 24-28	<b>Muscle Physiology (cont'd)</b> <ul style="list-style-type: none"> <li>• gross muscle physiology</li> </ul> <b>Cardiovascular Physiology</b> <ul style="list-style-type: none"> <li>• ECG (action potentials)</li> <li>• cardiac cycle and controls</li> </ul>	Ch 9	Lab 7: Muscle Physiology and Joint ROM

<b>WEEK/DATE</b>	<b>LECTURE TOPIC</b>	<b>TEXT CHAPTER</b>	<b>LAB</b>
9. Mar 3-7	<b>Cardiovascular Physiology</b> (cont'd) <ul style="list-style-type: none"> <li>• blood flow / blood pressure</li> <li>capillary exchange</li> </ul>	Ch 10	Lab 8: Cardiovascular Physiology
10. Mar 10-14	<b>Hematology</b> <ul style="list-style-type: none"> <li>• hematopoiesis</li> <li>• hemostasis</li> </ul>	Ch 11	Lab 9: Hematology and Immunology
11. Mar 17-21	<b>MIDTERM 2</b>  <b>Immunology / Defense Systems</b> <b>(if time allows)</b> <ul style="list-style-type: none"> <li>• specific vs non-specific defense</li> </ul>	Ch 12	Lab 10: Respiratory Physiology
12. Mar 24-28	<b>Respiratory Physiology</b> <ul style="list-style-type: none"> <li>• ventilation</li> <li>• lung volume and capacities</li> <li>• gas laws and diffusion</li> <li>blood flow/gradients (O<sub>2</sub>/CO<sub>2</sub>)</li> </ul>	Ch 13	Lab 11: Urinalysis
13. Mar 31-Apr 4	<b>Renal Physiology</b> <ul style="list-style-type: none"> <li>• renal anatomy review</li> <li>• filtration/reabsorption /secretion</li> <li>• fluid/electrolyte balance</li> <li>• acid/base balance</li> </ul>	Ch 14 Ch 15	<b>NO LABS</b> **instructor will announce lab-time activities for this week
14. Apr 7-11	<b>Renal Physiology</b> (cont'd)  <b>Reproductive Physiology</b> <ul style="list-style-type: none"> <li>• hormonal regulation of reproduction (if time allows)</li> </ul>	Ch 20	<b>LAB EXAM</b>
Apr 14-25	<b>FINAL EXAM (scheduled by registrar)</b>		