



## 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:	Carolyn Rymes		
(b)	Office Hours:	TBA		
(c)	Location:	F352		
(d)	Phone:		Alternative Phone:	
(e)	Email:	RymesC@camosun.bc.ca		
(f)	Website:	<a href="http://online.camosun.ca/">http://online.camosun.ca/</a> (D2L entry site)		

### 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. Demonstrate an understanding of the functioning of the major physiological systems of the human body at the cellular and systemic levels.
3. Explain how the major physiological systems of the body interact to bring about biological behaviors.
4. Explain the interactions between major physiological systems of the body as they pertain to exercise and health.
5. Understand how physiological processes are altered in injury or disease.
6. Apply anatomical vocabulary in a physiological context.
7. Perform laboratory procedures relevant to physiology (observe physiological phenomena, measure physiological data, organize / record / analyze results of physiological experiments).
8. Utilize critical thinking to apply physiological concepts to specific problem solving situations.

### 3. Required Materials

(a) Fundamentals of Human Anatomy and Physiology, 10th edition, Martini, Nath & Bartholomew, Pearson Education, 2015

(b) **Lab Manual:** Biology 151/144 Lab Manual (2016), Camosun College.

#### 4. Course Content and Schedule

##### Lectures:

Monday 1:30-4:20 F338  
Wednesday 1:30-4:20 F338

##### Lab:

Tuesday 1:30-4:20 F238  
Thursday 1:30-4:20 F238

#### 5. Basis of Student Assessment (Weighting)

Lab/Lecture Assignments 20%

Lab Quiz - 2 (5% each) 10%  
Lab Exam 20%

Lecture Midterm 20%  
Lecture Final Exam 30%

#### 6. Grading System

##### 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.

#### Plagiarism

Plagiarizing is appropriating the work of another or parts or passages of another's writing (including the ideas or language) and passing them off as the product of one's own mind or manual skill. **Plagiarism will not be tolerated.** Plagiarism, **including the copying of any part of assignments or lab assignments**, is a serious offence and is considered to be academic misconduct. In some cases, the lab instructor may prefer a lab assignment to be written as a group. In such cases, handing in one assignment for the group will be acceptable. Otherwise, lab assignments handed in by individuals are expected to be individually prepared.

#### Cheating

A student caught cheating on an exam will forfeit all credit for that exam and perhaps for the course. Cheating is a serious offence and is considered to be academic misconduct. **Cheating includes, but is not limited to, using unauthorized materials in a quiz/exam and providing information to another person regarding exam content.**

The consequences for cheating and plagiarism are outlined by Camosun College policies (see: <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf> <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.1.pdf> )

#### Lab Safety

Under **NO** circumstances will students ingest food or drink in the lab. Taking oral medication or applying makeup or lip balm in the lab is also prohibited. You may leave the lab at a convenient time if you are thirsty, need a snack or require medication. For safety reasons students are **required** to wear closed shoes and pants in all lab times. Flip flops, sandals or shoes with holes are not acceptable.

Failure to adhere to the lab safety principles will result in the inability to enter the lab, or expulsion from the lab, and the subsequent **loss of credit** for that lab, including any pre-lab assessment credit.

#### Laboratory Attendance

A **2% final grade penalty** applies to any unexcused absence from lab. Frequent lates 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". Lab assignments can only be handed in for labs actually attended.

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 or will likely annoy your lab partner.

#### Missed Exams and Assessments

Quizzes and the exams must be written at the scheduled times. Under no circumstances will a make-up exam be administered. However, it is understood that emergency circumstances occur (e.g. illness or emergency in the immediate family); for such circumstances accommodation may be offered at the discretion of the instructor, provided (a) the instructor is notified in advance of the exam (not after) and (b) the student provides documented evidence of the circumstance (i.e. medical certificate). The accommodation will be in the form of a make-up exam or adjusting the weighting of the final lecture exam to make up the missing marks, at the discretion of the instructor.

---

**Please note: holidays or scheduled flights are not considered to be emergencies!**

### **Late Penalties**

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 (including weekend days). 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.

**Note:** There is the option of 1 free late assignment. There will be no penalty provided the assignment is received prior to it being marked and returned to the class. Any assignment received after its return to the rest of the class will be marked but will not receive credit

### **Study Habits:**

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.

Lecture notes will be provided in point form. These should be used as a study guide, not as your sole source of information! You will need to write down additional key words for 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. Study these notes before the next class to prepare yourself for new material, which will often build on previously covered material.

Please take advantage of office hours if you need extra clarification and help, or simply would like to discuss a topic a little further.

---

## Detailed Course Schedule: Bio 144 Spring 2016

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

Wk	Dates	Lecture	Laboratory
1	May 2-3	<b>Homeostasis Cell Physiology</b> • cell membranes and transport	<i>Lab 1:</i> Introduction to the physiology labs, scientific literature and chemistry review.
1	May 4-5	<b>Neuromuscular Physiology</b> • membrane potentials • action potentials in different cells • neurotransmitters and synapses • neural patterns and circuits, reflexes (in lab) • muscle contraction	Lab 2: Movement of molecules
2	May 9-10	<b>Neuromuscular Physiology (cont'd)</b>	Lab 3: Muscle mechanics and EMG
2	May 11-12	<b>Cardiovascular Physiology</b> • electrical activities in the heart • cardiac cycle and controls • blood flow, blood pressure, and capillary exchange	Lab 4: Neural circuits and reflexes
3	May 16-17	<b>Cardiovascular Physiology (cont'd)</b>	<b>No Lab</b>
3	May 18-19	<b>Respiration</b> • ventilation and lung volumes • gas laws and diffusion • transport of gasses (O <sub>2</sub> / CO <sub>2</sub> )	<b>Lab quiz- lab 1-4</b> <i>Lab 5:</i> Cardiovascular Physiology
4	May 23-24	<b>Respiration (cont'd) Kidney and Renal Physiology</b> • filtration/reabsorption/secretion • fluid, pH, electrolyte balance	<b>Note: Tuesday's lab will be a Lecture - in Lab Room (a review for Midterm as well)</b>
4	May 25-26	<b>Lecture Midterm</b>  <b>Kidney &amp; Renal Physiology (cont'd)</b>	Lab 6: Respiration and Buffering Capacity
5	May 30-31	<b>Renal Physiology (cont'd) Digestion</b> • chemical digestion (enzymes) • absorption • neural and hormonal controls	Lab 7: Urinalysis
5	June 1-2	<b>Metabolic Physiology</b> • cellular respiration • carbohydrate, protein, and lipid metabolism • absorptive and postabsorptive states	<i>Lab 8:</i> Digestion
6	June 6-7	<b>Metabolic Physiology (cont'd) Endocrine and Hormonal Regulation</b> • hormones as chemical signals • mechanisms of hormone action <b>Start Hematology</b>	<b>Lab quiz-lab 5-8</b> <i>Lab 9:</i> Senses
6	June 8-9	<b>Hematology</b> • hemopoiesis and erythrocyte cycle • hemostasis <b>Start Immunology</b>	<i>Lab 10:</i> Hematology, Endocrine System, and Immunology
7	June 13-14	<b>Immune Response</b> • non-specific and specific defenses <b>Reproduction</b> • oogenesis and spermatogenesis • regulation of reproduction • regulation of pregnancy, parturition, and lactation	Review
7	June 15-16	<b>Reproduction (cont'd)</b> If time allows: Review	<b>Lab Exam (Lab 1-10)</b>
8	June 20-22	<b>Final Exam:</b> schedule by registrar	

