



COURSE OUTLINE

Camosun College stores this outline for five (5) years only. It is recommended that you keep a copy since it may be required to support a future request for transfer credit/s to out of province colleges/universities.

(4 credits) W (3,0,1.5,0,0)

This course is the companion to BIOL 150. It provides an overview of functional relationships within the human body. Physiological processes are studied at both the cellular and organ system level, with an emphasis on the maintenance of homeostasis. Laboratory exercises illustrate basic physiological principles.

To find where this course transfers, check the [BC Transfer Guide](#)

Prerequisite(s): BIOL 150; **and** Chemistry 11, or CHEM 100.

1. Instructor Information

| | | | | |
|-----|---------------|--|--------------------|--|
| (a) | Instructor: | W. Donald MacRae | | |
| (b) | Office Hours: | Mon (2:30-4:30); Tues (1:00-3:00); Wed (1:30-2:30) | | |
| (c) | Location: | F346A | | |
| (d) | Phone: | 370-3437 | Alternative Phone: | |
| (e) | Email: | dmacrae@camosun.bc.ca | | |
| (f) | Website: | D2L | | |

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. Understand how physiological processes are altered in injury or disease.
5. Apply anatomical vocabulary in a physiological context.
6. Perform laboratory procedures relevant to physiology (observe physiological phenomena, measure physiological data, organize / record / analyze results of physiological experiments).
7. Utilize critical thinking to apply physiological concepts to specific problem solving situations.

3. Required Materials

Textbook: Saladin, K.S. Anatomy & Physiology: The Unity of Form and Function, 6th edition. McGraw Hill, New York, 2012 (an earlier edition of this book or other recent textbooks of college level human physiology will suffice).

Lab Notes: Supplied electronically via D2L website.

4. Course Content and Schedule

| Wk | Dates | Lecture Topic | Lab Activity |
|--------------------------------|------------------|--|-----------------------------------|
| 1 | Jan 9-13 | Chemistry of Life (Ch 2) Aspects of Cell Function (Ch 3 and 4) | Lab 1: Movement of molecules 1 |
| 2 | Jan 16-20 | Metabolism and Nutrition (Ch 26) | Lab 2: Movement of molecules 2 |
| 3 | Jan 23-27 | Neuromuscular Physiology (Ch 12, Ch 11) | Lab 3: Respiration |
| 4 | Jan 30- Feb 3 | Neuromuscular Physiology (Ch 12, Ch 11) | Lab 4: Electromyography |
| 5 | Feb 6-10 | Cardiovascular Physiology (Ch 19, 20) Lecture test 1 (Feb 8) | Lab 5: Electrocardiography |
| 6 | Feb 13-15 | Cardiovascular Physiology (Ch 19, 20) | No Labs |
| Feb 16-17 Reading break | | | |
| 7 | Feb 20-24 | Respiratory Physiology (Ch 22) | Lab Test 1 |
| 8 | Feb 27- Mar 2 | Respiratory Physiology (Ch 22) Urinary Physiology (Ch 23) | Lab 6: Respirometry |
| 9 | Mar 5-9 | Urinary Physiology and Fluid Balance (Ch 23) | Lab 7: Renal Function |
| 10 | Mar 12-16 | Digestion (Ch 25) | Lab 8: General and special senses |
| 11 | Mar 19-23 | Immunology (Ch 21) Lecture test 2 (March 21) | Lab 9: Hematology and Blood types |
| 12 | Mar 26-30 | Special Senses (Ch 16) | Lab 10: Sympathetic Reflexes |
| 13 | April 2-5 | Male Reproductive Physiology (Ch 27) | Lab Test 2 |
| April 6-9 Easter | | | |
| 14 | April 10-13 | Female Reproductive Physiology (Ch 28) | Lab 11: Reaction time |
| | April 16-24 | Lecture test 3 – scheduled by registrar | |

5. Basis of Student Assessment (Weighting)

| | |
|----------------|------|
| Assignments | 10% |
| Lab Exercises | 10% |
| Exams | 80% |
| Lab test 1 | 10% |
| Lab test 2 | 10% |
| Lecture test 1 | 15% |
| Lecture test 2 | 15% |
| Lecture test 3 | 30 % |

6. 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 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. (<i>For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.</i>) |
| 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

A variety of services are available for students to assist them throughout their learning. This includes not only assistance in study skills but health and counseling services. This information is available in the College calendar, at Student Services, or the College web site at 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.

Final Grade Calculator:

| | |
|--|---|
| Read ahead and review material on same day it is covered..... | 3 |
| Keep up with reading and review lectures at the end of the week..... | 2 |
| Skip reading until in the mood and wait until a few days before test to review..... | 0 |
| Attend lectures and spend 1 hour studying for each 1 hour of lecture..... | 3 |
| Skip lectures and spend 3 hours studying for each hour of lecture..... | 3 |
| Skip lectures and spend less than 1 hr studying for each 1 hr lecture skipped..... | 0 |
| Use active study methods (e.g. explain concepts to study partners) and avoid distractions. | 2 |
| Study by reading and hoping you remember later..... | 1 |
| Study while texting, cooking, watching TV or dealing with social disharmony..... | 0 |
| Look for aspects of the course that are interesting to you or apply to your life..... | 1 |
| Remind yourself that you need a certain grade in this course before you can get into another course that you need a certain grade in to get into another course that you need a certain grade in to get into another course that you need a certain grade in (etc, etc)..... | 0 |
| Get regular exercise and sleep, especially before tests..... | 1 |
| Don't make time for exercise and stay up late studying before tests..... | 0 |
| Feel good about the things you have to be grateful for..... | 1 |
| Dwell on the things you don't have but wish you did..... | 0 |

Choose which of these statements that will apply to you this semester, add their values together and use the Standard Grading System to calculate your expected grade