

AET 310 COURSE SYLLABUS



COURSE TITLE: **AET 310 Pathophysiology**

CLASS SECTION: **003**

TERM: **Fall 2024**

COURSE CREDITS: **3**

Camosun College campuses are located on the traditional territories of the Lək̓ʷəŋən and W̱SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here.

Learn more about Camosun's [Territorial Acknowledgement](#).

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable explanation in advance, you will be removed from the course and the space offered to the next waitlisted student.

INSTRUCTOR DETAILS

NAME: Melissa Roumanis M.Sc. Exercise Science; CAT(C)

EMAIL: roumanism@camosun.ca

OFFICE: PISE 212A

OFFICE HOURS: Monday 11:30- 1:30, Thursday 11:30-12:30 or by appointment

As your course instructor, I endeavour to provide a fair and inclusive learning environment. If you experience barriers to learning in this course, do not hesitate to discuss them with me. I also endeavour to create a class environment that is conducive to respectful engagement and critical enquiry in the pursuit of knowledge. All ideas relevant to the subject area are welcome and subject to scrutiny and discussion.

CALENDAR DESCRIPTION

An advanced physiology course that investigates physiological states and their relationships to injury and disease. Focus is on the body's response to injury/disease, tissue healing and repair, and how the healing process relates to therapy and rehabilitative medicine.

PREREQUISITE(S): One of "C" in BIOL 144 or BIOL 151.

COURSE LEARNING OUTCOMES / OBJECTIVES

Upon successful completion of the course, students will be able to:

- Describe the disease process in terms of etiology, pathogenesis, morphology, clinical manifestations, and prognosis.
- Explain the meaning of reliability, validity, sensitivity, specificity, and predictive value as it relates to observations and tests used in the assessment of injury and disease.
- Explain primary, secondary and tertiary prevention.
- Demonstrate an understanding of the cellular changes which accompany injury and disease.
- Describe common diseases of body systems that are relevant to the usual practice of the athletic/exercise therapist.
- Identify manifestations of common diseases relevant to the practice of athletic/exercise therapy.

- Explain physiological responses of various body systems that would indicate homeostatic imbalance.
- Explain the cellular changes and different body system responses to injury and disease across the ages and various populations.
- Identify the considerations for cultural, ethnic, gender, age and functional ability differences in clientele.
- Demonstrate timely and appropriate interventions and referrals.
- Explain the internal physiology of the human body in normal function and disease states.

REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

Required text: "*Essentials of Pathophysiology*". Mattson Porth, C.M., (2015) 4th Edition, Lippincott Williams & Wilkins, ISBN: 9781451190809 (earlier editions are OK too!). Digital versions of the text are available through the College bookstore.

COURSE SCHEDULE, TOPICS, AND ASSOCIATED PREPARATION / ACTIVITY / EVALUATION

	<u>DAY</u>	<u>TIME</u>	<u>LOCATION</u>
Lectures:	Tues	10:00 – 11:20am	LACC 124
	Thur	8:30 – 9:50am	TEC 181

The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

WEEK	WEEK OF:	LECTURE TOPIC/CHAPTER	LECTURE TOPIC/CHAPTER
1	Sep 2	Course introduction	Ch 2 – Cellular responses to stress
2	Sep 9	Ch 3 - Inflammation	Ch 4 – Cell proliferation, tissue regeneration & repair
3	Sep 16	Ch 5 – Genetic control of cell function	Ch 15 – Innate & adaptive immunity
4	Sep 23	Ch 15 – Innate & adaptive immunity	Ch 7 - Neoplasia
5	Sep 30	Ch 7 - Neoplasia	Ch 8 – Disorders of fluid balance
6	Oct 7	Ch 9 – Stress & adaptation	Ch 12 – Disorders of hemostasis
7	Oct 14	Ch 18 – Disorders of blood flow & pressure	Ch 18 – Disorders of blood flow & pressure
8	Oct 21	MIDTERM EXAM	
9	Oct 28	Ch 19 – Disorders of cardiac function	Ch 20 – Heart failure & circulatory shock
10	Nov 4	Ch 20 – Heart failure & circulatory shock	Ch 23 – Disorders of ventilation
11	Nov 11	Ch 23 – Disorders of ventilation	Ch 33 – Diabetes & the metabolic syndrome
12	Nov 18	Ch 33 – Diabetes & the metabolic syndrome	Ch 36-37 – Disorders of neuromuscular and brain function
13	Nov 25	Ch 42-44 – Disorders of the skeletal system	Ch 42-44 – Disorders of the skeletal system

WEEK	WEEK OF:	LECTURE TOPIC/CHAPTER	LECTURE TOPIC/CHAPTER
14	Dec 2	TBD	Review for final exam

Students registered with the Centre for Accessible Learning (CAL) who complete quizzes, tests, and exams with academic accommodations have booking procedures and deadlines with CAL where advanced notice is required. Deadlines can be reviewed on the [CAL exams page](http://camosun.ca/services/accessible-learning/exams.html). <http://camosun.ca/services/accessible-learning/exams.html>

EVALUATION OF LEARNING

DESCRIPTION	WEIGHTING
Research essay paper (please see associated research essay guidelines)	20%
Midterm exam (written during class time during midterm exam week)	25%
Weekly D2L quizzes (9 x 2% each + 3 x 3% each)	27%
Final exam	28%
	100%

If you have a concern about a grade you have received for an evaluation, please come and see me as soon as possible. Refer to the [Grade Review and Appeals](http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf) policy for more information. <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf>

COURSE GUIDELINES & EXPECTATIONS

Online D2L quizzes:

There are 12 quizzes in total during the term. The due date for quizzes 1-6 will be just before the midterm exam and for 7-12 will be just before the final exam. Most of these quizzes will consist of multiple choice, true/false, multi-select, fill in blank in nature and will be worth 2% each. Three of the quizzes will include case studies and/or longer written answers and will be worth 3% each. It will help to read the relevant chapters in the textbook and lecture slides (see the class schedule below) before attempting these quizzes.

It is your choice when you decide to take these quizzes. I would suggest you attempt them when we have completed the relevant chapter material in the lectures. You may decide to attempt them closer to the deadline but you should know there will be NO EXTENSIONS on quiz attempts if you miss or forget them. These quizzes will be a useful resource for revising for the midterm and final exams.

Missed exams:

Exams must be written during the time/date that is scheduled. If a student is unable to write an exam through no fault of their own for medical or other reasons, valid documentation must be provided and discussed with the instructor. If a student who is absent has not made arrangements with the instructor in advance, he or she will receive a zero. Final exams may be scheduled at any time during the final exam block; therefore, students should avoid making travel plans, professional or personal commitments for the duration of the exam period. Students must write the final exam to pass the course.

Late research essay assignments:

The assignment dropbox will remain open for ONE WEEK after the research essay due date. However, for

each day that your assignment is late, you will receive a 1 mark per day deduction.

USE OF AI-BASED WRITING TOOLS

- ChatGPT is an example of an AI-based language model that can generate human-like text and is freely available online. However, its use is limited to idea generation only. The purpose of this section is to outline the guidelines for using AI in this course and to specify the restrictions on its use.
- Students may use ChatGPT or other AI-based language models to assist with generating ideas, but the final product must be their own original work. It is essential that students recognize the importance of generating their ideas and thoughts to enhance their critical thinking, problem-solving, and decision-making skills. Therefore, the use of ChatGPT should be seen as a supportive tool, rather than a replacement for students' ideas and efforts.
- Students are not permitted to use ChatGPT or other AI-based language models to complete assignments or exams. Any use of ChatGPT or other AI-based language models for such purposes will be considered academic dishonesty and will result in appropriate action being taken, in line with the College's academic integrity policies.
- If using ChatGPT or other AI-based language models to generate ideas, students MUST cite the use of ChatGPT or other AI-based language models in their work, following the APA style guidelines for the course. Please go to this site for details on how to cite AI sourced information according to APA style: https://camosun.libguides.com/apa7/AI_tools
- Students are responsible for understanding the limitations and potential biases of ChatGPT and other AI-based language models and for critically evaluating their output.
- The use of ChatGPT or other AI-based language models is not a substitute for participating in class discussions or completing course readings.

STUDENT RESPONSIBILITY

Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

SUPPORTS AND SERVICES FOR STUDENTS

Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit <http://camosun.ca/students/>.

Support Service	Website
Academic Advising	http://camosun.ca/advising
Accessible Learning	http://camosun.ca/accessible-learning
Counselling	http://camosun.ca/counselling

Support Service	Website
Career Services	http://camosun.ca/coop
Financial Aid and Awards	http://camosun.ca/financialaid
Help Centres (Math/English/Science)	http://camosun.ca/help-centres
Indigenous Student Support	http://camosun.ca/indigenous
International Student Support	http://camosun.ca/international/
Learning Skills	http://camosun.ca/learningskills
Library	http://camosun.ca/services/library/
Office of Student Support	http://camosun.ca/oss
Ombudsperson	http://camosun.ca/ombuds
Registration	http://camosun.ca/registration
Technology Support	http://camosun.ca/its
Writing Centre	http://camosun.ca/writing-centre

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

Academic Accommodations for Students with Disabilities

The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the [Centre for Accessible Learning](#) (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started:

<http://camosun.ca/services/accessible-learning/>

Academic Integrity

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf> for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

Academic Progress

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

Course Withdrawals Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <http://camosun.ca/learn/fees/#deadlines>.

Grading Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for further details about grading.

Grade Review and Appeals

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

Mandatory Attendance for First Class Meeting of Each Course

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the "Attendance" section under "Registration Policies and Procedures" (<http://camosun.ca/learn/calendar/current/procedures.html>) and the Grading Policy at <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>.

Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf> to learn more about the process involved in a medical/compassionate withdrawal.

Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun's Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student's right to choose what is right for them. For more information see Camosun's Sexualized Violence and Misconduct Policy: <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.9.pdf> and camosun.ca/sexual-violence. To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-3703841

Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College's Student Misconduct Policy at <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf> to understand the College's expectations of academic integrity and student behavioural conduct.

Changes to this Syllabus: Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.