



Course Syllabus

Course title: Laboratory Pathophysiology

Class section: MLAB - 173 - BX01B

Term: 2025S

Course credits: 3

Total hours: 75

Delivery method: Blended

Territorial acknowledgment

Camosun College respectfully acknowledges that our campuses are situated on the territories of the Lək̓ʷəŋən (Songhees and Kosapsum) and W̱SÁNEĆ peoples. We honour their knowledge and welcome to all students who seek education here.

Instructional hours

Lecture hours: 3 per W

Lab hours: 2 per W

W = Week

T = Term

Instructor details

Name: Tania Pozney

Email: pozneyt@camosun.ca

Course description

Course Description:

In this course, students review anatomic systems and discuss pathologies and conditions commonly investigated by medical laboratories. Students will focus on learning how tests required in hematology, chemistry, transfusion medicine, histology, cytology, and microbiology provides physicians with critical information for diagnosing, treating, and monitoring health conditions. Students learn how pathologies and conditions affect patient and client interactions and explore appropriate responses by the Medical Laboratory Assistant.

Prerequisites:

All of:

- C+ in MLAB 139

Pre or Co-requisites:

All of:

- C+ in MLAB 147

Learning outcomes

Upon successful completion of this course, the learner will be able to

1. Demonstrate knowledge of tests and procedures used when collecting and handling specimens in hematology, chemistry, transfusion medicine, histology, cytology, and microbiology
2. Discuss the nature, relationship, and effects of pathophysiologic processes on the human body as they pertain to the analysis conducted in medical laboratories for specimen handling and collections

3. Classify commonly occurring pathological conditions investigated in laboratory sciences into the divisions of hematology, transfusion medicine, histology, cytology, and microbiology and describe the nature of each
4. Apply knowledge of commonly investigated pathological conditions as they pertain to the components of laboratory testing procedures (professionalism, interpreting requests, planning and preparing for collecting procedures, establishing patient relationships, performing collection procedures, and pre-analytical preparation)

Competency mapping

Competencies

1. Demonstrate knowledge of the fundamentals of terminology, anatomy & physiology, pathophysiology and disease transmission during the pre-analytical phase of specimen collection. (CSMLS 2.01) (BCSLS – Unit 2B)
2. Knowledge and demonstration of procedures for collecting and handling specimens across all laboratory sciences divisions. (BCSLS – Unit 3F: 3.02, 3.01, Unit 3G)
3. Understand the human body systems and their primary functions and structures as they relate to pathological conditions and the associated lab tests. (BCSLS Unit 2A: 2.01, Unit 2C: Competencies: Infection Control)

Course schedule

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

Week or Date Range	Lecture	Lab	Quiz/Assignment
Week 1	Introduction to the course - course outline, format and expectation discussion	NO LAB	
Week 2	Unit 1 - Tissue Overview and Integumentary Systems Unit 2 - Skeletal and Muscular Systems	Activity for Units 1-2	Open book quiz #1 (Units 1-2) Term Project Part 1 assigned

Week or Date Range	Lecture	Lab	Quiz/Assignment
Week 3	Unit 3 - Nervous System Unit 4 - Digestive System	Activity for Units 3-4	
Week 4	Unit 5 - Cardiovascular System Unit 6 - Respiratory System	Activity for Units 5-6	Open book quiz #2 (Units 3-6) Term project Part 1 due, Part 2 assigned
Week 5	Unit 7 - Endocrine System Unit 8 - Reproductive System	Activity for Units 7-8	
Week 6	Unit 9 - Urinary System Unit 10 - Lymphatic/Immune Systems	Activity for Units 9-10	Open book quiz #3 (Units 7-10) Term project Part 2 due, Part 3 assigned
Week 7	Overview of midterm and introduction to second half of the course	Midterm written in lab	Midterm
Week 8	Transfusion Medicine	Activity for Transfusion	Quiz #4 - Transfusion
Week 9	Hematology 1	Activity for Hematology	
Week 10	Hematology 2, Coagulation	Activity for Hematology	Quiz #5 - Hematology
Week 11	Chemistry 1	Activity for Chemistry	Term project Part 3 due
Week 12	Chemistry 2	Term project presentations	Quiz #6 - Chemistry
Week 13	Histology/Cytology	Activity for Histology	Quiz #7 - Histology/Cytology
Week 14	Review, Exam Q&A	Potential lab tour/open lab	

Assessment and evaluation

Type	Description	Weight
Quizzes and tests	3 open book for anatomy units, 4 not open book for department units (7 total, 5% each)	35
Projects / Research	Term Project	25
Exams (Midterms and finals)	Midterm	15
Exams (Midterms and finals)	Final Exam	25

Course guidelines and expectations

Attendance

Students are expected to be on time; tardiness disrupts the class. When students are more than 5 minutes late (and/or the door is shut), they cannot enter the classroom until the class break period. Since lectures are online, please enter the ZOOM session without disruption and with volume muted. If you choose not to or are unable to attend lecture it is your responsibility to acquire all information given during a class missed, incl. notes, hand-outs, assignments, changed exam dates etc.

Attendance in labs is mandatory. If a lab is going to be missed, you must notify your instructor by email at least one hour before the start of lab whenever possible. If a lab must be missed due to unforeseen circumstances or pre-arranged conditions, a make up lab can possibly be planned with the instructor. Please arrange with the instructor ahead of time so they are aware of your absence.

Missed exams cannot be made up except in case of documented illness (doctor's note required). The instructor must be informed that the students will be missing the exam before the exam start time.

Participation in Learning Activities

Students enrolled in Allied Health & Technologies Programs must participate in learning activities that include intimate and direct personal contact with their classmates during supervised practice. Students are training to perform the duties of a healthcare professional. These duties usually require constant, close physical contact with patients and clients. Students may be required to simulate and perform these activities on one another during this course. Students may also be required to use special hygiene practices and protective gear to protect themselves from the transmission of

communicable disease (like COVID-19). Risk associated with learning and performing the physical duties of a healthcare professional cannot be entirely eliminated by any amount of caution or protection. Students who refuse or are incapable of participating and performing these activities due to personal or medical limitations may only continue to participate in their course work when supported by officially registered accommodations or temporary medical advisory.

Written Assignments

Assignments are due by 23:59 on the assigned day unless otherwise specified. Unless otherwise directed by individual course outlines or assignment descriptions, assignments must be: word processed, double spaced, font meeting APA 7th edition guidelines, with a title page and reference list in APA 7th edition format. Student requiring an extension for the due date of an assignment must discuss with the instructor, at least 24 hours before the due date. Assignment submitted late without an approved extension will result in a 10% deduction in mark for each day late, and will not be accepted after 5 days post due date.

Student Assessment

Students must achieve a minimum of 65% in order to pass this course and use it as a prerequisite. Detailed information regarding assignments will be available on D2L. Complete all assignments on time and submit by the designated due dates. Unless otherwise stated, all assignments will be submitted via D2L.

The use of AI generated tools is permitted ONLY for brainstorming and organizing your ideas. Its use will not be tolerated when passed off as original writings for class assignments. Any assignment that can be proven to have used AI tools in an unauthorized way will be treated as plagiarism and given a zero. (Camosun Academic Policy: <http://camosun.ca/learn/calendar/current/pdf/academic-policies.pdf>)

In emergency circumstances, a student may arrange to take an assessment before or after the scheduled time if the student would otherwise be unable to complete the program or course. Exceptions due to emergency circumstances, such as unavoidable employment commitments, health problems, or unavoidable family crises, require the approval of the instructor. Holidays or scheduled flights are not considered to be emergencies. The student may be required to provide verification of the emergency circumstance.

School or departmental information

Students are required to read and are accountable for the College policies (outlined below) and practicum guidelines as described in the School of Health and Human Services (HHS) and program handbooks.

[CMLA Program Handbook](#)

Clinical and Practice Placements in HHS

<https://camosun.ca/programs-courses/school-health-and-human-services/hhs-programs/practicums>

School of Health and Human Services (HHS)

<https://camosun.ca/programs-courses/school-health-and-human-services/information-health-and-human-services-students-1#top>

College policies and student responsibilities

The college expects students to be responsible, respectful members of the college community. Responsible students meet expectations about attendance, assignments, deadlines, and appointments. They become familiar with academic policies and regulations, and their rights and responsibilities.

College policies are available online at the [Policies and Directives](#) page. Academic regulations are detailed on the [Academic Policies and Procedures for Students](#) page.

Policies all students should be familiar with include the [Academic Integrity Policy](#). This policy expects students to be honest and ethical in all aspects of their studies. It defines plagiarism, cheating, and other forms of academic dishonesty. Infractions of this policy can result in loss of marks or a failing grade. To learn more about plagiarism and cheating, including the use of artificial intelligence, review the [Academic Integrity Guide](#).

The [Academic Accommodations for Students with Disabilities Policy](#) defines how Camosun provides appropriate and reasonable academic accommodations. The Centre for Accessible Learning (CAL) coordinates academic accommodations. Students requiring academic accommodations should request and arrange accommodations through CAL. Contact CAL at least one month before classes start to ensure accommodations can be put in place in time. Accommodations for quizzes, tests, and exams must follow CAL's booking procedures and deadlines. More information is available on the [CAL website](#).

Students must meet the grading and promotion standards to progress academically. More information is available in the [Grading Policy](#).

The college uses two grading systems. A course will either use the standard letter grade system (A+ to F) or a competency-based approach with grades of complete, completed with distinction or not completed. Visit the [Grades/GPA page](#) for more information.

Students must meet the college's academic progress standards to continue their studies. A student is not meeting the standards of progress when a GPA falls below 2.0. The college offers academic supports for students at risk of not progressing. The [Academic Progress Policy](#) provides more details.

If you have a concern about a grade, contact your instructor as soon as possible. The process to request a review of grades is outlined in the [Grade Review and Appeals Policy](#).

The [Course Withdrawals Policy](#) outlines the college's requirements for withdrawing from a course. Consult the [current schedule](#) of deadlines for fees, course drop dates, and tuition refunds.

If students experience a serious health or personal issue, they may be eligible for a [medical or compassionate withdrawal](#). The [Medical/Compassionate Withdrawal Request Form](#) outlines what is required.

The [Acceptable Technology Use](#) policy ensures the use of the college network and computers contribute to a safe learning environment. This policy also applies to the use of personal devices with the college network.

Students experiencing sexual violence can get support from the Office of Student Support. This Office of Student support is a safe and private place to discuss supports and options. More information is available on the [sexual violence support and education site](#). Students can email oss@camosun.ca or phone 250-370-3046 or 250-370-3841.

The [Student Misconduct Policy](#) outlines the college's expectations of conduct. Students should behave to contribute to a positive, supportive, and safe learning environment.

The [Ombudsperson](#) provides an impartial, independent service to help students understand college policies.

Services for students

Successful students seek help and access college services. These services are recommended to make the most of your time at college.

Services for Academic Success

- [Career Lab](#): Connects students with work-integrated learning experiences, including co-op placements and career fairs.
- [English, Math, and Science Help Centres](#): Get one-on-one help with homework.
- [Library](#): Get help with research, borrow materials, and access e-journals and e-books. Libraries at both campuses provide computers, individual and group study spaces.

- [Makerspace](#): A place to innovate, collaborate, and learn new skills and technology in a fun, dynamic, inclusive environment.
- [Writing Centre & Learning Skills](#): Get assistance with academic writing or meet with a learning skills specialist for help with time management, preparing for exams, and study skills.

Enrolment, Registration, and Records

- [Academic Advising](#): Talk to an academic advisor for help with program planning.
- [Financial Aid and Awards](#): Learn about student loans, bursaries, awards, and scholarships.
- [Registration](#): Get information about Camosun systems, including myCamosun, and college policies and procedures.
- [Student Records](#): Get verification of enrolment to access funding, request a transcript, or credential.

Wellness and Cultural Supports

- [Counselling](#): It's normal to feel overwhelmed or unsure of how to deal with life's challenges. The college's team of professional counsellors are available to support you to stay healthy. Counselling is free and available on both campuses. If you need urgent support after-hours, contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.
- [Centre for Indigenous Education and Community Connections](#): Provides cultural and academic supports for Indigenous students.
- [Camosun International](#): Provides cultural and academic supports for international students.
- [Fitness and Recreation](#): Free fitness centres are located at both campuses.

For a complete list of college services, see the [Student Services](#) page.

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 the course content or schedule. When changes are necessary the instructor will give clear and timely notice.