

CLASS SYLLABUS



COURSE TITLE: MLAB 139 – Pre-Analytics & Lab Principles
CLASS SECTION: BX01A - BX01B
TERM: S2024
COURSE CREDITS: 3
DELIVERY METHOD(S): Synchronous, Blended

Camosun College campuses are located on the traditional territories of the Ləkʷəŋən and W̱SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here. Learn more about Camosun's [Territorial Acknowledgement](#).

<https://camosun.ca/about/covid-19-updates>

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: Tania Pozney
EMAIL: pozneyt@camosun.ca
OFFICE: CHW 317
HOURS: Flexible – must be pre-arranged

I will respond to emails within a day or two, except over the weekend. Please do not email me on a Sunday about a lab, quiz, or assignment on the Monday or Tuesday as I won't have time to get back to you.

As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.

CALENDAR DESCRIPTION

In this course, students examine the function and safe operation of laboratory and accessory analytical founding the medical laboratory environment. Students explore technical and biological principles affecting the preparation and quality of samples. By focusing on chemical analysis and reagents, students will learn how and why blood products and other samples are collected, labelled, prepared, handled, stored, packaged and transported in the pre-analytical phase.

PREREQUISITE(S): **One of:** C in Biology 12; C in BIOL 090; C in BIOL 103
One of: C in Chemistry 11; C in CHEM 070
CO-REQUISITE(S): n/a
PRE/CO-REQUISITE(S): n/a

COURSE DELIVERY

| ACTIVITY | HOURS / WEEK | # OF WEEKS | ACTIVITY HOURS |
|-------------------------------|--------------|--------------------|----------------|
| Lecture | 3 | 15 | |
| Seminar | | | |
| Lab / Collaborative Learning | 2 | 15 | |
| Supervised Field Practice | | | |
| Workplace Integrated Learning | | | |
| Online | | | |
| | | TOTAL HOURS | 75 |

COURSE LEARNING OUTCOMES

Upon successful completion of this course, a student will be able to:

- Identify and describe the equipment (including accessories) and components commonly found in medical laboratory departments and explain how they interrelate to produce a diagnostic analysis of specimens.
- Identify and demonstrate the skills necessary for proper collection, labelling, and preparation of specimens other than blood for distribution to clinical laboratory departments.
- Explain the influence of correct labeling and handling procedures, selecting appropriate collection tubes, order of draw, preparation, and aseptic technique on accurate results.
- Discuss problem solving and troubleshooting for analytical errors based on incorrect labeling and handling procedures, improper selection of collection tubes, incorrect order of draw, preparation errors, and poor aseptic technique.

COURSE OBJECTIVES AND MAPPED PROFESSIONAL COMPETENCIES

(also known as “sub-outcomes” or “learning objectives”)

- Knowledge of safe and effective use of laboratory equipment and devices commonly encountered in the laboratory and how they contribute to the diagnostic process.
- Prepare, label, and store chemicals, reagents and stains demonstrating aseptic techniques, including appropriate disinfection of glassware. Knowledge of the importance of specimen collection with an emphasis on specimen integrity, priorities, sample volumes and storage requirements as they relate to test results
- Knowledge of the proper instruction of patients for collection and preparation of urine and other non-blood specimens for analysis
- Employ knowledge of non-blood specimen procedures by practicing collection and preparation techniques used in microbiology

REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

- Warekois & Robinson. (2015) Phlebotomy: Work text and Procedure Manual 5th Ed.
- CSMLS Laboratory Safety Guidelines 8th or 9th Edition

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

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

| WEEK | ACTIVITY or TOPIC | OTHER NOTES | COMPETENCIES CSMLS/BCSLs |
|------|---|---|--|
| 1 | Lab – Orientation to the lab, ice breaker activities, safety overview, D2L overview and course outline coverage Lecture – Unit 1 Equipment and supplies | Assignment 1 - Background knowledge assessment | |
| 2 | Lab – Equipment and supplies Lecture – Unit 2 Urinalysis | | 1.02 - 1.04, 1.06, 1.09, 1.10 |
| 3 | Lab – Urine collection and analysis Lecture – Unit 2 Centrifuge and aliquot | Assignment 2 – Lab equipment infographic | 1.05, 3.01, 4.02, 4.03, 6.08 2B (4.03), 2C (1.01-1.05, 1.07-1.10, 1.13, 1.15) |
| 4 | Lab – Centrifuge and aliquot practice Lecture - Unit 3 Non-blood specimens | Quiz 1 – Equipment and supplies | 2.09 2B, 3D, 3H |
| 5 | Lab - Non-blood specimen patient instructions practice Lecture – Discuss Assignment 2, check in and review up to this point | Assignment 3 - Patient instruction videos | 2.12 3H |
| 6 | Lab – Further practice with urinalysis, aliquoting, patient instruction. Includes discussion of upcoming lab competency Lecture - Unit 4 – Introduction to microbiology | Quiz 2 – Urine and non-blood specimens | 2.03, 2.09 2B, 3H |
| 7 | Lab – Competency assessment #1 Lecture – Unit 4 – Microbiology 2 and 3 | Lab Competency #1 (performed during lab time) | |
| 8 | Lab – Streaking plates, making smears Lecture – Unit 4 – Microbiology 3 and 4 | Assignment 4 – Microbiology | 3.04 2C, 3E |
| 9 | Lab – Gram staining, further streaking practice Lecture – Unit 5 blood smears | Quiz 3 - Microbiology | 4.01 (lecture) 3F - heme, 3F - chem (lab) 2B 4.01, 4.02 (lecture) |
| 10 | Lab – Peripheral blood smears and reagent lot number activity Lecture – Unit 6 lab math | | 3.02, 3.03, 4.01 3F - heme |
| 11 | Lab – Further slide making practice, slide staining, microscope use, lab math worksheets Lecture – Unit 7 – Point of care testing | | 6.07 2B 4.01, 4.02 |

| WEEK | ACTIVITY or TOPIC | OTHER NOTES | COMPETENCIES CSMLS/BCSLs |
|------|---|---|---|
| 12 | Lab – Point of care testing Lecture – Unit 8 – Automation | Quiz 4 - Lab math and blood smears | 2.15, 2.16 (POC), 3.1, 6.03 (Automation lecture) 3F (POC), 3H (automation lecture) |
| 13 | Lab – Competency assessment #2 Lecture - Pre-analytical case studies, final exam discussion, review | Lab Competency #2 (performed during lab time) | 2.08, 2.13 (lecture) |
| 14 | Lab – Open/drop in lab – further practice in any areas necessary, time for one on one questions Lecture – No lecture unless needed | | |

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>

STUDENT EVALUATION

| DESCRIPTION | WEIGHTING |
|---------------------|-------------|
| Assignments (4) | 25% |
| Quizzes (4) | 25% |
| Lab assessments (2) | 20% |
| Final Exam | 30% |
| TOTAL | 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

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. In exceptional circumstances, students may request an extension, however, that extension must be arranged with the instructor **BEFORE** the due date. Depending on the reason, students who have prearranged an extension may still have 10% of

the total possible mark deducted per day from late assignments. This will be clearly defined by the instructor so the student is aware of the grading. If an extension is not arranged before the due date, the assignment will automatically have 10% deducted per day, up to 5 days. After 5 days the assignment can not be handed in and will be given a zero.

- 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.**
- 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.

(Camosun Academic Policy) <http://camosun.ca/learn/calendar/current/pdf/academic-policies.pdf>

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 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.

SCHOOL OR DEPARTMENTAL INFORMATION

Health & Human Services Student Handbook: <http://camosun.ca/learn/school/health-human-services/student-info/index.html>

General Practicum Information: <http://camosun.ca/learn/school/health-human-services/student-info/practicum-info.html>

Allied Health & Technologies Department Handbooks:

- Certified Medical Laboratory Assistant: <http://camosun.ca/learn/school/health-human-services/student-info/program-info/cmla.html>
- Diagnostic Medical Sonography: <http://camosun.ca/learn/school/health-human-services/student-info/program-info/sono.html>
- Medical Radiography: <http://camosun.ca/learn/school/health-human-services/student-info/program-info/mrad.html>

Students enrolled in Allied Health & Technologies Programs must achieve a minimum of 65% or a "COM" in each of their courses in order to use their course as a pre-requisite and progress in their program.

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 diseases (like COVID-19). Risks associated with learning and performing the physical duties of a healthcare profession 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.

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 |
| 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 |

| Support Service | Website |
|--------------------|---|
| 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 250-370-3841

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.