



School of Health & Human Services
Continuing Education

MEDL 411V 001
Specimen Handling
Fall 2014

Course Outline

Instructor: Ladan MacLucas
E-mail: medlab@camosun.ca
Telephone: 250-370-3103 (Continuing Education office)

This course covers the preparation of specimens in the areas of hematology, chemistry, immunohematology, microbiology, cytology and histology. How to provide directions to patients, aliquoting, processing and handling of non-blood specimens is included.

Learning Outcomes:

At the end of the course the student will be able to:

1. Identify and demonstrate the collection of blood specimens in appropriate collection tubes relating to area
2. Identify and demonstrate skills necessary for the proper collection of specimens other than blood
3. Demonstrate the correct labelling and handling of the specimens
4. Demonstrate the correct method to prepare specimens for distribution to clinical laboratory departments for analysis
5. Demonstrate knowledge of a test library for obtaining information required to collect and handle specimens

What we will cover:

- Introduction to the departments in the medical laboratory, in private and public sectors
- Understand variety of samples received in the medical laboratory
- Understand handling bodily fluids in the laboratory
- Introduction to the clinical chemistry laboratory, including a discussion of routine testing, specialized testing, toxicology, and therapeutic drug monitoring
- Introduction to Hematology department, basic knowledge of the blood cells and their functions, including a discussion of routine testing in both hematology and coagulation.
- Introduction to sample preparation and storage
- Handling blood samples after collection and during the transportation.
- Sample storage
- Discuss the patient identification procedure in blood sample collection
- Introduction to clinical histology and cytology department

Hematology:

- Learn about the components of blood and be able to describe the various types of cells in the peripheral blood
- Learn about a number of hematology tests performed in the laboratory
- Learn the specialized collection instructions, the type of anticoagulant used, the purpose of the test and be familiar with some abnormal or disease state that could be associated with the respective test

Transfusion Medicine:

- Be familiar with type of services and products that transfusion medicine department provide
- Learn about a number of transfusions medicine tests performed in the laboratory
- Learn the specialized blood collection instructions

Chemistry:

- Be familiar with the types of services the clinical chemistry laboratory provides
- Learn about a variety of analytical tests with respect to the name and purpose of the test, the type of anticoagulant required, and special collection instructions, and be familiar with some abnormal or disease stats that may be associated with the specific test.

Histology:

- Be familiar with the type of services the department provides
- Understand the type of samples that are received in histology department.
- Handle specimens in safe and informed manner
- Introduction to the equipment used in the Histology department.

Microbiology:

- Explain the key characteristics of virus, fungi, parasites and bacteria
- Define culture and sensitivity and antibiotic sensitivity
- Handle microbiology specimens in a safe and informed manner
- Explain and assist patients and physicians with proper specimen collection (e.g. swabs, blood cultures, urine or stool samples, etc.)
- Evaluate and perform specimen set-up in a Microbiology team environment
- Understand the Media used in microbiology lab to isolate, grow, identify the bacteria causing

***Any normal ranges that are provided are for your information only. ***

Reading recommendations: Phlebotomy Essentials, Chapter 6, 11, 13 and 14 and Appendix D

References

Essential Hematology, Hoffbrand and Pettit, 2nd edition.
Mosby's Diagnostic and Laboratory Test reference, Pagana and Pagana 2nd edition,
Phlebotomy Essentials, Ruth E. McCall and Cathie M. Tankersley, 4th edition.
Fundamentals of Urine and Body fluid analysis, Nancy A. Bruznel
The Morphology of Human Blood Cells, Abbott Laboratories, 4th edition, 1984

Evaluation of Learning

Exam #1	30%	December 13
Exam #2	40%	January 17
Exam #3	20%	February 10
Microbiology Lab	10%	February 10

Passing Grade

The passing grade for this course is 65 % (C+).

Grading System

Percentage	Grade	Description
90-100	A+	
85-89	A	
80-84	A-	
77-79	B+	
73-76	B	
70-72	B-	
65-69	C+	Minimum grade to successfully complete Med Lab Assistant theory courses.
60-64	C	
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.
0-49	F	Minimum level has not been achieved.

Important Notes

- Please arrive on time. The instructor will begin class on time.
- This course emphasizes experiential learning. Students are expected to attend all classes and to participate in class discussions and activities. Consistent attendance and participation is critical for success.
- The college provides many services to students; please contact the Registration department at either campus. Please note that not all services may apply to Continuing Education (CE) students. CE students are not contributing members of Camosun College Student Society (CCSS) and therefore do not pay CCSS fees or receive member benefits with their Photo ID.
- Please complete and submit the written assignment on the designated date at the beginning of the class. Marks will be deducted at 15% per day for a late assignment.
- It is your responsibility to obtain course material if absent from class.
- Please have pagers and cell phones on “mute” and leave room to return emergency phone calls.
- Please tidy up your area before you leave.
- All Camosun policies are available in PDF format at <http://camosun.ca/about/policies/> or in the current print credit calendar. Please refer to the section Academic Policies & Procedures for information on Student Conduct, Student Appeals, Standards of Academic Progress and more. Please note that not all policies apply to Continuing Education (CE) students. Please refer to the *Student Guide for Continuing Education* or the Medical Lab program <http://camosun.ca/learn/programs/medical-laboratory-assistant/> for more information.