

	School of Health & Human Services Medical Radiography Technology
	Course Name: Introduction to Radiographic Procedures Course Number: MRAD 117 Term: Fall 2018

COURSE OUTLINE

Description:

In this novice level course, students integrate foundational positioning skills for general radiographic examinations of the body and the basic components of a radiographic procedure. In the laboratory setting, students take x-rays of simulated humans (phantoms), in a safe and professional manner, practicing for patient procedures during their first clinical practicum. Students successfully complete competency evaluations for simulated radiographic procedures focused on critical clinical safety indicators to prepare for the clinical experience.

The Approved Course Description is available on the web:

<http://camosun.ca/learn/calendar/current/web/mrad.html#MRAD117>

Please note:

- This outline will **not** be kept indefinitely.
- This outline will only be electronically stored for five (5) years.
- It is strongly recommended students keep this outline for your records; especially to assist in transfer credit to post-secondary institutions
- This course is only open to students in the Medical Radiography program.

1. Instructor Information

(a)	Instructor:	Brent McMillen, Sarah Erdelyi and Hong Gerow
(b)	Office Hours:	Tuesday and Thursday 1230-1320 or by appointment
(c)	Location:	MRT 212D
(d)	Phone:	250-370-3169
(e)	Email:	mcmillenb@camosun.ca , erdelyis@camosun.ca , gerowh@camosun.ca
(f)	Website:	http://online.camosun.ca/

2. Intended Learning Outcomes/Competencies

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

1. Demonstrate correctly positioned radiographic projections on phantoms and laboratory partners for routine radiographic examinations of the body.
2. Apply the components of a radiographic examination (interpret the request, plan the examination, establish the patient relationship, execute the procedure, and conclude the examination) to low complexity patient scenarios encountered during the first clinical practicum experience.
3. Discuss the implications of varied patient health conditions (physical and emotional) on routine examinations of the body and the necessity for the Medical Radiation Technologist to appropriately respond.
4. Apply and convey anatomic knowledge, basic radiographic principles, patient care considerations, and best practices when analyzing images for diagnostic acceptability.

3. Required Materials

(a) Required Textbooks:

Bontrager, K.L., & Lampignano, J.P. (2018). *Textbook of Radiographic Positioning and Related Anatomy (9th ed.)*. St. Louis, Missouri: Elsevier Mosby.

McQuillen Martensen, K. (2015). *Radiographic Image Analysis (4th ed.)*. St. Louis, Missouri: Elsevier Saunders.

Bontrager, K.L., Lampignano, J.P., & Kendrick, L.E. (2018). *Workbook: Textbook of Radiographic Positioning and Related Anatomy 9th ed.*. St. Louis, Missouri: Elsevier Mosby.

Bontrager, K.L., & Lampignano, J.P. (2018). *Bontrager's Handbook of Radiographic Positioning and Techniques (9th ed.)*. St. Louis, Missouri: Elsevier Mosby.

Optional Textbooks: available for purchase or on reserve in library

McQuillen Martensen, K. (2015). *Workbook for Radiographic Image Analysis (4th ed.)*. St. Louis, Missouri: Elsevier Saunders.

Long, B.W., Rollins, J.H., & Smith, B.J. (2016). *Merrill's Atlas Of Radiographic Positioning & Procedures, Volumes 1,2,3 (13th ed.)*. St. Louis, Missouri: Elsevier Mosby.

(b) Other

Desire-to-Learn (D2L):

D2L – the Camosun College online learning portal contains the remainder of the learning materials for this course. Students are expected to familiarize themselves with the online learning environment and all the features it has to make this course experience enriching. Log on at <https://online.camosun.ca/> to access these materials.

Additional resources may include, but are not limited to: lecture notes, PowerPoint slides, Textbook companion workbooks, Laboratory Manuals, and hyperlinks. You may prefer to download lectures notes ahead of time (when available) and then write your notes directly onto copies of the slides.

D2L materials **must not** be considered your sole source of information! They merely summarize the main points and provide direction for your learning experiences. You may need to write down additional information in each lecture. Additionally, not all details can be covered in a lecture, and you will be required to refer to textbook material that is not discussed specifically in class.

4. Course Content and Schedule:

Lecture Days/Times & Room Number:

MRT 212C or MRT 212A/B

Monday 1330-1520

Wednesday 1030-1220

Thursday (Critique) 1030-1220

Friday 1330-1420

Lab Days/Times & Room Number:

XRAY LABS MRT 212 A, B, C:

7 hours each week based on designated set

2 hours lab critique based on designated set

Sections **A B C D** – please check CamLink for times

Course Schedule
Introduction to Radiographic Procedures
MRAD 117

Wk	Dates	Positioning Module	Ch. (Bontrager)	Critique	Ch. (MQM)
1	Sept 3-7 (Labour Day- Sept.3)	Group agreement/Study Share and PACS intro		Critique Intro Positioning and Terminology	1 Bontrager
2	Sept 10-14	PACS/lab assignments/tests/w orkbooks		Beam Principles and Geometry	1 Bontrager
3	Sept 17-21	Upper- finger to elbow	4	Critique Criteria	1
4	Sept 24-Sept 28	Upper- humerus to scapula	5	Upper – hand and wrist	4
5	Oct 1-5	Lower - toe to tib/fib	6	Upper – elbow	4
6	Oct 8-12 (Thanksgiving- Oct.8)	Lower - knee	6	Upper – shoulder	5
7	Oct 15-19	Lower – Pelvis/hip/femur	7	Lower – foot and ankle	6
8	Oct 22-26	Skull - sinuses, skull, nasal, orbits	11	Lower – knee	6
9	Oct 29- Nov 2	Review		Lower – pelvis and hip	7
10	Nov 5-9	C/T spine	8	Skull – skull, sinuses, and facial bones	11
11	Nov 12-16 (Remembrance Day in lieu of Oct.12)	Lumbar/sacrum/ coccyx	9	C/T spine	8
12	Nov 19-23	Bony thorax - Chest	2	Lumbar spine	9
13	Nov 26-Nov 30	Bony thorax - Ribs	10	Chest and abdomen	3
14	Dec 3-7	Abdomen	3, 12,13,14	Review	
15	Dec 10-14	FINAL EXAM PERIOD			

Do not book trips until the final exam schedule is posted by the registrar.

5. Student Assessment

Workbook	5%
Module Quizzes	26%
Midterms	14%
Lab Comps	30%
Critique	10%
Cumulative Final Exam	15%
Final Comp	Completion
TOTAL	100%

Students must achieve a minimum of 65% to use this course as a prerequisite.

Workbook (5%)

Before each module quiz your workbook will be due. Quizzes will be on Fridays at 1330. A late workbook will result in no mark for that week. The workbook chapters assigned will coincide with the chapters your quizzes are based on. This is to encourage you to use the workbook as a study tool. Workbooks will not be due on Midterm days but are encouraged to be used as a study guide throughout the course.

Module Quizzes (26%)

There will be quizzes following the completion of a module. They are used to assess your level of knowledge as it relates to the positioning and critique content from that module. The purpose of these quizzes throughout the term is to keep you up to date on course content, help you identify areas of weakness, celebrate successful integration of knowledge, provide confidence, decrease anxiety, and expose you to the type of questions you can expect on the midterms and final exam.

Midterms (14%)

There will be two midterms throughout the term. The first midterm is cumulative from the start of the term and the second midterm is cumulative from the first midterm. They are used to assess your level of knowledge as it relates to the positioning and critique content from multiple modules. The purpose of these midterms is to keep you up to date on course content, help you identify areas of weakness, celebrate successful integration of knowledge, provide confidence, decrease anxiety, and expose you to the type of questions you can expect on the final exam.

Lab Competencies (30%)

Upon completion of the practice activities for that module, students will demonstrate their ongoing Simulation Competency through a combination of scenarios, role playing, phantom simulation & exposure, image production and image critique. Students will be marked on specific components of a radiographic exam and be given instructor feedback.

After the competency is finished students will sometimes have a self-reflection to complete regarding that module.

When the self-reflection is complete the student is to drop box their score sheet and self-reflection into the assigned drop box. This is due on the Sunday after the competency at 2359.

It is expected that all labs will be attended by the student as this is the opportunity for the student to practice what they have learnt in lecture and will allow greater success in the competencies and in clinical. Each student is partnered, so any absence affects another student's learning. An unexplained/unsanctioned lab absence compromises a lab partner's ability to learn and the absent student may enter a learning contract.

Critique (10%)

There will be 5 body parts to critique to complete the passport to image critique. This booklet allows practice of image analysis skills, as well as how to use correct terminology and technical language. Practicing these skills now will prepare the student for clinical terms critique of all body parts is required for clinical portfolio completion. Image critique also allows development of strategies to recognize patient positioning errors, and how to fix them. Lab time is given to practice and present image critiques to the instructor on a one-on-one basis.

Final Exam (15%)

The final examination is cumulative and includes material from all modules covered in the course. This final examination will occur during the regularly scheduled final exam week.

Do not book trips until the final exam schedule is posted by the registrar.

In emergency circumstances, a student may write a test or final examination 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 retrievable from:

<http://camosun.ca/learn/calendar/current/pdf/academic-policies.pdf>

Missed quizzes or examinations cannot be made-up except in the case of documented illness (doctor's note).

Final Competency (completion)

The cumulative final competency evaluates the student's abilities to determine if they are able to demonstrate, apply, discuss the **Intended Learning Outcomes** and are **safe to enter a clinical setting**.

Students must successfully complete the cumulative final competency in order to attend clinical.

Late Penalties

Late assignments will be subject to 10% per day penalty, at the instructor's discretion.

Late assignments will be accepted only until the next assignment due date.

6. Grading System

The following two grading systems are used at Camosun College. This course will use:

- Standard Grading System (GPA)
- Competency Based Grading System

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

STUDENT CONDUCT POLICIES

It is the student's responsibility to become familiar with the content of these policies. The policies are available in each School Administration Office, Registration, and on the College web site in the Policy Section.

[Academic Policies and Procedures](#)
[Student Conduct Policy](#)

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Registrar's Office or the College web site at

<http://www.camosun.bc.ca>

MRT PROFESSIONAL CODE OF ETHICS

Camosun College Medical Radiography Technology students are expected to abide by the Canadian Association of Medical Radiation Technologist (CAMRT) Code of Ethics inasmuch as it applies to them in the learning and clinical environments. This information is available on the CAMRT website at:

[CAMRT Code of Ethics](#)

MRT Department Policies & Procedures

Camosun College Medical Radiography Technology students are responsible for knowing all of the MRT Department Policies and must abide by them, including dress codes & lab safety procedures.

<http://camosun.ca/learn/programs/mrt/handbook.pdf>

Grading Systems

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+	Minimum level of achievement to use the course as a prerequisite.	3
60-64	C		2
50-59	D	Minimum level of achievement for which credit is granted.	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
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</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,

8. GENERAL INFORMATION

Students are expected to attend all classes and labs. If you are unable to attend the lecture it is your responsibility to acquire all information given during a missed class including notes, hand-outs, assignments, changed examination dates, etc.

The Medical Radiography Technology program is committed to promoting competence, professionalism and integrity in our students and developing their core skills to succeed throughout their academic programs and in their careers. The purpose of Academic Honesty Guidelines is to provide clear expectations of appropriate academic conduct and to establish processes for discipline in appropriate circumstances. It is the student's responsibility to become familiar with the content and the consequences of academic dishonesty. Before you begin your assignments, review the Academic Policies on the Camosun College website:

<http://camosun.ca/learn/becoming/policies.html>

