	School of Health & Human Services
CAMOSUN COLLEGE	Medical Radiography Technology
	Course Name: Clinical Education 3
	Course Number: MRAD 250

COURSE OUTLINE

The Approved Course Description is available on the web:
http://camosun.ca/learn/calendar/current/web/mrad.html

Please note:

- *This outline will be electronically stored for five (5) years only. It is strongly recommended students keep this outline for your records.*
- *This course is only open to students in the Medical Radiography program.*

Introduction:

This is the last of three clinical education courses. The students will refine their previous clinical experience by focusing on high acuity patient cases. Term objectives will remain on examinations of the entire skeleton (including cranium), chest, abdomen, and gastrointestinal contrast studies.

Students will be scheduled in all areas related to patient imaging practice such as general imaging department, acute/trauma areas, operating room, patient wards and outpatient clinics. In addition, students will be directed to complete their required Bone Mineral Densitometry, Mammography and CT Scan rotation. This includes performing CT Scans of the head, thorax, abdomen/pelvis and spine.

Prerequisites: A minimum of "C+" in MRAD 235, MRAD 237, MRAD 240, MRAD 241, MRAD 243, MRAD 245, MRAD 246, MRAD 247, MRAD 248, MRAD 249; and "COM" in MRAD 230

Co-requisite: MRAD 255

1. Instructor Information

(a)	Instructor:	Brent Mekelburg (June), Lynelle Yutani (July), Sarah Erdelyi (August)	
(b)	Office Hours:	N/A- available by request	
(c)	Location:	MRT 212D	
(d)	Phone:		Alternative Phone:	
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(f)	Website:	http://online.camosun.ca/	

2. Intended Learning Outcomes/Competencies

Letters and numbers following certain learning outcomes indicate the specific competencies covered from the CAMRT Medical Radiography Competency Profile:

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

1. **prepare for the procedure by**: reviewing and interpreting the requisition, reviewing previous images and reports, selecting technical factors and selecting/entering patient information, confirming patient preparation. (A1.1, B1.8, F1.1, F2.2-30.2, F2.3-30.3, F2.4-30.4, F32.2. F32.3,F32.4, F33.2, F33.3, F33.4, F34.2 -41.2, F34.3 – 41.3, F24.4-41.4, G1.1, G2.2,G2.3, G2.4, G3.2,G3.3, G3.4, G4.2,G4.3,G4.4, G4.5,G5.2,G5.3,G5.4, G5.5, G6.2,G6.3, G6.4, G6.5, G7.2,G7.3,G7.4, G7.5, H1.1, H2.2,H2.3,H2.4, H3.2,H3.3,H3.4, I1.1, I2.2, I2.3, I2.4, I3.2, I3.3, I3.4 , I3.5, I4.2, I4.3,I4.4, I4.5, J1.1, J2.2,J2.3 J2.6,,J3.2, J3.3, K1.3, L1.1, L1.2, L1.7, M1.3, M1.4)

2. **communicate with the patient and prepare them for the procedure by**: verifying patient identification, introducing themselves to the patient, assessing the patient condition, explaining the procedure to the patient and communicating with the patient throughout the procedure. (A1.1,B1.7,B2.2, B2.3, B3.1, B3.2, F1.2, F29.5, F30.5, G1.2, H1.2, I1.2, J1.2, J2.4, J3.4,J3.5, L1.3)

3. **perform the procedure by:** accurately positioning the patient using anatomic landmarks, applying the correct markers, adapting the procedure to the patient or situation and repeating or acquiring additional images as needed. (F1.1, F2.5-F28.5, F2.6-F28.6, F29.6,F29.7, F30.6, F30.7, F31.5- 33.5, F31.6-33.6, F32.5,F32.6, F33.5,F33.6, F34.5 –F41.5, F34.6 –F41.6, G1.1, G2.5, G2.6, G3.8,G4.9, G4.10 G5.9,G5.10. G6.10.G6.11, G7.8,G7.9, H1.1, H2.5, H2.6, H3.5, H3.6, H3.7,I1.1, I2.5, I2.6, I3.10, I3.11, I3.12, I4.11, I4.12, J1.1, J2.10,J3.6, K1.4, K.12, K1.13, L1.4,L1.5,L1.6)

4. **operates the imaging equipment by:** aligning the imaging system, adjusting technical factors, operating equipment and accessories in a safe manner and applying correct post processing algorithms. (E1.1-1.4, E1.9, E1.10, E1.12, E1.13, J3.7, L1.8, L1.9)

5. **apply the principles of safe radiation protection practices by:** ascertaining pregnancy status, using shielding and collimation to limit radiation dose, providing protection for others assisting with the examination and following all provincial and national radiation safety requirements. (C1- all, C2-all, C3.3)

6. **ensure patient and worker safety by**: locking wheelchairs and stretchers, using proper transfer techniques, following standard precautions and isolation practices. (B1.1-1.4, B4.1-4.7)

7. **analyze the image by**: critiquing the image using the guidelines provided, recognizing the exposure values, windowing and leveling the image, recognizing correct image quality and determining the need for a repeat or additional view. (A1.1, E1.14, E2-all, F2.7-28.7, F2.8-28.8, F29.8, F29.9, F30.8, F30.9, F32.7, F32.8, F33.7, F33.8, F34.7 –F41.7, F34.8 –F41.8, G2.7,G2.8,G3.9,G3.10, G4.11,G4.12,G5.11, G5.12, G6.12,G6.13, H2.7,H2.8, H3.7,H3.8, I2.7,I2.8, I3.13,I3.14, I4.13,I4.14, J2.11,J3.7, J3.8, K1.14,K1.17, L1.10, L1.13,L1.14, M1.11, M1.12)

8. **provide patient care by**: assessing the patient condition, assisting the patient throughout the procedure, providing comfort and safety to the patient, preparing contrast and assisting with its

administration, initiating emergency procedures, managing tubes, lines and other accessory equipment, providing privacy and respecting patient needs. (A1.1, B1.1-1.6, B2.3, B3.1 – 3.4, B5.1, F1.4, G1.4,G3.5 ,G3.6,G3.7, G4.5-4.8, G5.5- 5.8, G6.5-6.8, G7.5-7.7, H3.5, H1.4, I1.4, I3.6-3.9, I4.6-4.9, J1.4, J2.7- 2.9, K1.5,K1.6,K1.11, M1.5 M1.6,M1.7,M1.9)

9. **perform post procedure activities by:** completing all documentation, verifying image archival and providing post procedural instructions. (B1.9, B3.5, D1.1, E3.1, E3.4, G3.11, G4.13,G5.13, G6.14, G7.12,I3.15, I4.15,J2.12, J3.9,K1.18, M1.13)

10. work in an organized and efficient manner throughout a procedure and over the course of multiple procedures.   Use resources efficiently and perform the procedure within a reasonable time frame. (A7.1, F1.3, G1.3, H1.3, I1.3, J1.3)

11. perform work in a professional, legal and ethical manner by performing procedures within the identified scope of competency, demonstrating knowledge of patients' legal rights, asking for and receiving feedback graciously and adhering to all relevant policies. (A2.1 – 2.6, D1.3)

12. be accountable for performance by taking responsibility for their actions.

13. work as part of the health care team by: contributing to the department workflow, communicating with patients, family, coworkers and other health care professionals, assisting others without prompting and using time productively. (A2.8, A3.5, A3.7, B2.2)

14. perform a variety of CT scans of the head, thorax, abdomen/pelvis and spine. (C1.7, K1.12,K1.13)

15. perform BMD and mammographic examinations and participate in specialized and interventional studies as available through the facility. (C1.8, L1.1-L1.10, L1.13, L1.14, M1.5-1.7, M1.9-1.12)

[CAMRT Medical Radiography Competency Profile](#)

3. Learning Resources

Required:
- Markers
- Radiation monitoring device (OSL)
- Island Health photo ID and proximity card
- Portfolio of Clinical Experience and Competence
- MRT Student Workbook
- MRT Student Clinical Handbook

Required Textbook:

Carlton, Greathouse, Adler. (2006) *Delmar's Principles of Radiographic Positioning and Procedures Pocket Guide* (second edition). Delmar Cengage Learning: Nelson.

There are resources within D2L to assist the students during the clinical term.

Desire-to-Learn (D2L):

D2L – the Camosun College online learning portal contains learning materials for this course. All forms and handbooks can be found within D2L. Log on at https://online.camosun.ca/ to access these materials.

Course	Orientation and Formative Feedback Evaluations	Self-Evaluation	Verbal and Specialty Critiques	Image Transfers - Study Share Submissions	Competency Evaluations
MRAD 250 (CE3)	4	1	28 (18 CT)	2	16

4.   Student Assessment

Assessment Details

This course has a grade of Competent (C) or Unsatisfactory (U). Summative evaluations determine the course grade and are completed at the end of the term. Summative evaluations are a compilation of information from formative evaluations and portfolio requirements.

5.   Course Content and Schedule:

35 practical hours per week over 12 weeks

6.   Grading System

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

☐   Standard Grading System (GPA)

[X]   Competency Based Grading System

Competency Based Grading System

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes.

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

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	*Incomplete*: 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 death in the family.
IP	*In progress*: 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. *(For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.)*
CW	*Compulsory Withdrawal*: 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, worksite, or field placement.

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

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 insomuch 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

8.   GENERAL INFORMATION

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