



CAMOSUN COLLEGE
School of Health and Human Sciences
Medical Radiography Technology

Computed Tomography Procedures, MRAD277

Winter 2017

COURSE OUTLINE

The calendar description
is available on the web @

<http://camosun.ca/learn/calendar/current/web/mrad.html#MRAD277>

In this advanced beginner course, students explore routine Computed Tomography (CT) procedures of the body. Students integrate concepts from previous and concurrent courses to support their understanding of clinical applications in CT. Using case study scenarios; students learn the basic components of a CT examination in preparation for their final clinical practicum experience.

Ω Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

1. Instructor Information

(a) Instructor	Aref Aalam	
(b) Office hours	W, F 13:30 to 14:30	
(c) Location	WT 212D	
(d) Phone	(250) 370 3182	Alternative: _____
(e) E-mail	ArefrezaA@camosun.ca	
(f) Website	https://online.camosun.ca/	

2. Intended Learning Outcomes

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

- a) Discuss routine Computed Tomography procedures used to diagnose a variety of patient conditions*
- b) Analyze Computed Tomography images of the body using knowledge of anatomy, physiology and pathology.*
- c) Compare a variety of applications in Computed Tomography useful to clinical diagnosis.*
- d) Apply the components of a routine Computed Tomography examination in a variety of clinical practice situations.*

3. Required Materials

(a) Textbooks

- Romans, LE. **Computed Tomography for Technologists- A Comprehensive Text.** Wolters Kluwer Health/Lippincott Williams & Wilkins 2011.
- Seeram, E. **Computed Tomography. Physical Principles, Clinical Applications and Quality Control(4th Ed.)** Saunders/Elsevier Inc. 2009.

(b) Other

All Previous Program Textbooks
American Association of Medical Physicists (AAMP)
Canadian Association of Radiologists (CAR)
Ctibus, and other sources

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 materials will include lecture notes, PowerPoint presentations, hyperlinks, Articles posted to D2L and materials covered during the laboratory sessions.

4. Course Content and Schedule

Lecture Days/ Rm Number

MRAD WT212C

Thursday 09:30 AM - 12:30 PM

Laboratory

MRAD WT 212 A, B, C

Thursday 1:30 PM - 3:30 PM

5. Basis of Student Assessment (Weighting)

Lab/Assignments	35%	Includes competency of mannequin venipuncture/development of written/verbal communication with patients/Case studies assignments
Late Assignments/Quizzes 5% penalty per day if not approved in advance		
Quizzes –Lectures 3x10%	25%	
Cumulative Final Exam	40%	
*Students must complete all assigned work, quizzes and Final exam to successfully complete the course.		

<http://camosun.ca/learn/calendar/current/procedures.html>

<http://camosun.ca/about/policies/>

Course schedule for Computed Tomography Procedures

The following schedule is tentative and subject to change if deemed necessary by the instructor.

Week	Dates	Lecture	Readings	Quiz	Lab
1	Jan 11	Introduction/Profession/Planning/Communication/Venipuncture	10 & 11 Romans		
2	Jan 18	Contrast Media	12&13 Romans 16 Seeram	1	Venipuncture Quiz, Consent Procedure Lab
3	Jan 25	Procedural Steps	10, 11		Contrast media administration/Develop Patient written/verbal communication
4	Feb 1	Head	15, 19 Romans 15 Seeram	2	Labs for weeks 4- 11 will Focus on Case Studies. These labs will coincide with CT Procedures of the area covered in the lectures.
5	Feb 8	Neck	19 Romans 15 Seeram		
6	Feb 12-16	READING WEEK No Classes			
7	Feb 22	Chest	16, 20 Romans 16 Seeram		2 Assignments 20% Week 4-11 Labs H/N/C/A/P/S/E -Simulated requests - choosing CT protocols -Evaluating images -ALARA -Anatomy/Pathology -image quality/artifacts -Reconstruction techniques - Challenges in the clinical setting/problem solving
8	Mar 1	Abdomen	17, 21 Romans 16 Seeram	3	
9	Mar 8	Pelvis	17, 21 Romans 16 Seeram		
10	Mar 15	Spine	16-17, Romans 15 Seeram		
11	Mar 22	Extremities	18, 22 Romans		
12	No class				
13	Apr 3	Interventional	23 Romans	4	All labs Friday April 6 Review of CT imaging of H/N/C/A/P/S/E Workflow management in CT Clinical Setting
13	Apr 6	Clinical Scenarios			
14	Apr 12	Venipuncture Lab			Venipuncture Comp & Course Review
15	Apr 16-24	Final Exam Period			

Attendance

- Attendance at all MRAD277 classes/labs is expected. If you are unable to attend class please notify myself by email prior to or as soon as is reasonable following the class.
- Students are responsible to cover all work missed, handouts, assignments negotiate new or make-up examination dates, etc.
- Student participation is essential for lectures and labs. We will work in pairs and small groups for various activities. Take the opportunity to enter class discussions and share your insights and contribute to group learning.

6. Grading System

(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.)

(Mark with "X" in box below to show appropriate approved grading system – see last page of this template.)

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

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

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, Student Services or the College web site at <http://www.camosun.bc.ca>

STUDENT CONDUCT POLICY

There is a Student Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.
<http://www.camosun.bc.ca/policies/policies.html>

A. GRADING SYSTEMS <http://www.camosun.bc.ca/policies/policies.php>

The following two grading systems are used at Camosun College:

1. 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+	<i>Required to use this course as a prerequisite</i>	3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

2. Competency Based Grading System (Non GPA)

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.

B. 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 at <http://www.camosun.bc.ca/policies/E-1.5.pdf> 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 death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
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, worksite, or field placement.

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>