



**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.

⌘ 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	Connie Saville	
(b) Office hours	Mondays 13:30 to 14:30	
(c) Location	WT 212D	
(d) Phone	(250) 370 3182	Alternative: _____
(e) E-mail	SavilleC@camosun.ca	
(f) Website	<a href="https://online.camosun.ca/">https://online.camosun.ca/</a>	

### **2. Intended Learning Outcomes**

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

- Discuss routine Computed Tomography procedures used to diagnose a variety of patient conditions*
- Analyze Computed Tomography images of the body using knowledge of anatomy, physiology and pathology.*
- Compare a variety of applications in Computed Tomography useful to clinical diagnosis.*
- 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**(4<sup>th</sup> Ed.) Saunders/Elsevier Inc. 2009.

#### (b) Other

American Association of Medical Physicists (AAMP)  
Canadian Association of Radiologists (CAR)  
Ctiscus, 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

MRT WT212C

Thursday 08:30-11:30

#### Laboratory

MRT WT 212 A, B, C

Thursday 11:30-13:30

### 5. Basis of Student Assessment (Weighting)

Lab Quizzes/Assignments	40%	Includes competency of mannequin venipuncture/development of written/verbal communication with patients/Case studies assignments
Late Assignments – 5% penalty per day if not an approved in advance		
Quizzes –Lectures 3x10%	30%	
Cumulative Final Exam	30%	65% required for Pass
*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

Week	Dates	Lecture	Readings	Quiz	Lab
1	Jan 9-13	Introduction/Profession/ Planning/Communication/Venipuncture	10 & 11 Romans		Venipuncture/Mannequin
2	Jan 16- 20	Contrast Media	12&13 Romans 16 Seeram		10% Quiz on Venipuncture & Competency assessment on a Mannequin
3	Jan 23- 27	Procedural Steps	10, 11	1(10%)	Contrast media administration/Develop Patient written/verbal communication 10%
4	Jan 30- Feb 3	Head	15, 19 Romans 15 Seeram		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 6-10	Neck	19 Romans 15 Seeram		
6	Feb 13- 17	READING WEEK No Classes			
7	Feb 20- 24	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	Feb 27- Mar 3	Abdomen	17, 21 Romans 16 Seeram	2(10%)	
9	Mar 6-10	Pelvis	17, 21 Romans 16 Seeram		
10	Mar 13- 17	Spine	16-17, Romans 15 Seeram		
11	Mar 20- 24	Extremities	18, 22 Romans		
12	Mar 27- 31	Interventional CT	23 Romans	3(10%)	Review of CT imaging of H/N/C/A/P/S/E
13	Apr 3-7	Clinical Scenarios			Workflow management in CT Clinical Setting
14	Apr10-14	Review			No Lab
15	Apr 17- 21	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 change 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+		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>*