## **CAMOSUN COLLEGE**



School of Health and Human Services (HHS)
Department: Allied Health & Technologies

# MRAD 279 Principles of Computed Tomography Winter 2020

### **COURSE OUTLINE**

The course description is available on the web: http://camosun.ca/learn/calendar/current/web/mrad.html#mrad279

 $\Omega$  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 Laura McCreight(b) Office hours By appointment

(c) Location CHW 319

(d) **Phone** 250-370-4756 **Alternative**:

(e) E-mail McCreightL@camosun.ca

(f) Website

# 2. Course Description & Intended Learning Outcomes

In this advanced beginner course, students build on their knowledge of imaging and accessory equipment, focusing entirely on Computed Tomography (CT). Students re-examine the digital imaging process, incorporating fundamental principles of radiographic imaging as they apply to CT. Students examine historical events significant to the invention and evolution of CT, as well as innovations in CT. Students examine Canadian standards surrounding quality assurance (QA) for CT to support their participation of QA activities and quality control (QC) procedures in their clinical practicum experience.

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

- a) describe the components of a variety of Computed Tomography systems and explain their function.
- b) explain the process of producing sectional images using a variety of Computed Tomography systems.
- c) describe the historical events surrounding the invention and evolution of Computed Tomography and the usefulness of this discovery in medical imaging.
- d) describe the essential quality assurance (QA) practices related to the use of Computed Tomography equipment in Canada.
- e) apply the principles of quality assurance (QA) to evaluate sectional images for diagnostic acceptability and appropriateness.

f) discuss quality assurance (QA) activities and quality control (QC) procedures pertaining to Computed Tomography.

# 3. Required Materials

Texts

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

# (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 <a href="https://online.camosun.ca/">https://online.camosun.ca/</a> to access these materials.

#### 4. Course Content and Schedule

# 5. Basis of Student Assessment (Weighting)

Attendance/Participation	20%
Midterm Exam 1	15%
Midterm Exam 2	15%
Midterm Exam 3	15%
Cumulative Final Exam	35%
TOTAL	100%
	100/0

# 6. Grading System

Standard Grading System (GPA)

☐ Competency Based Grading System

# 7. Recommended Materials 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 <a href="http://www.camosun.bc.ca">http://www.camosun.bc.ca</a>

#### 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

## 8. College Supports, Services and Policies

## Immediate, Urgent, or Emergency Support



If you or someone you know requires immediate, urgent, or emergency support (e.g., illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts: <a href="http://camosun.ca/about/mental-health/emergency.html">http://camosun.ca/about/mental-health/emergency.html</a> or <a href="http://camosun.ca/services/sexual-violence/get-support.html#urgent">http://camosun.ca/services/sexual-violence/get-support.html#urgent</a>

#### **College Services**

Camosun offers a variety of health and academic support services, including counselling, dental, centre for accessibility, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit Student Services at <a href="http://camosun.ca/services/">http://camosun.ca/services/</a>

#### **College Policies**

Policies are available on the College website at <a href="http://camosun.ca/about/policies/">http://camosun.ca/about/policies/</a>

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies.

Education and academic policies include, but are not limited to, <u>Academic Progress</u>, <u>Admission</u>, <u>Course Withdrawals</u>, <u>Student Appeals</u>, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, and Student Penalties and Fines.

#### **Student Conduct Policy**

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## A. GRADING SYSTEMS

http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf#page=2

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	Α		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		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
СОМ	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 <a href="http://www.camosun.bc.ca/policies/E-1.5.pdf#page=4">http://www.camosun.bc.ca/policies/E-1.5.pdf#page=4</a> 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	<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	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.