



**School of Health & Human Services**

Medical Radiography

**Course Name: Relational A&P for Technologists – Part A**

**Course Number: MRAD 156**

**Academic Term 3: Advanced Beginner**

**COURSE OUTLINE**

**Description:**

In this advanced beginner course, students complete an in-depth examination of the relational anatomy and physiology of the musculoskeletal, respiratory, and cardiovascular systems. Students enhance their understanding of anatomic relationships and physiologic functions using various medical imaging studies and a variety of illustrative media.

**The approved Course Description is available on the web:**

<http://camosun.ca/learn/calendar/current/web/mrad.html#MRAD156>

*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:	Aref Aalam
(b)	Office Hours:	Tuesdays and Thursdays 11:30-12:20 or by appointment
(c)	Location:	MRT 212D
(d)	Phone:	250-370-3182
(e)	Email:	<a href="mailto:Arefreza@camosun.bc.ca">Arefreza@camosun.bc.ca</a>
(f)	Website:	<a href="http://online.camosun.ca/">http://online.camosun.ca/</a>

## 2. Intended Learning Outcomes/Competencies

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

1. interpret anatomical structures and relationships of the musculoskeletal, respiratory, and cardiovascular systems using multi-media including medical images.
2. discuss the physiological function of the musculoskeletal, respiratory, and cardiovascular systems as they pertain to the practice of medical imaging.
3. compare and contrast the anatomic and physiologic information obtained by various medical imaging modalities.

## 3. Required Materials

### Required Textbooks:

Patton, K. & Thibodeau, G. (2016). *Anatomy & Physiology* (9<sup>th</sup> ed.) Textbook Elsevier Health Sciences.

### Optional Textbooks:

Drake, R.L., Vogl, W., & Mitchell, A.W.M. (2015). *Gray's Anatomy for Students* (3rd ed.). Churchill Livingstone.

### Desire-to-Learn (D2L):

D2L – the Camosun College online learning portal – contains the majority 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.

To ensure you are prepared each week, please visit D2L prior to each lecture. An overview will be provided at the beginning of each module, which contains important information about learning objectives and resource materials. The D2L calendar should be used to obtain information about specific dates and times for all course assessments.

D2L materials should **not** be considered your sole source of information. You will be required to refer to textbook or other material that is not discussed specifically during the lecture.

#### 4. Course Content and Schedule:

**Lecture Days/Times & Room Number:** Monday 0930-1120 & Thursday 0930-1120, WT 212C

#### Course Schedule:

Week	Dates (M-Fri)	Modules	Monday	Thursday	Assignments	
1	May 7-11	Intro & Review	Course Intro & Objective Review	Brief Review of Skeletal System (covered in depth during MRAD 106) & Cellular Structure (Sections from Chapter 5)		
2	May 14-18	MSK	Intro to Tissues (Chapter 8)	Tissue Types (Chapter 9)		
3	May 21-25		<b>STAT HOLIDAY</b>	Axial Muscles (Chapter 15 – Part 1 & 2)		
4	May 28-June 1		Appendicular Muscles (Chapter 16 – Part 1)	Appendicular Muscles (Chapter 16 – Part 2)		
5	June 4-8		Muscle Contraction (Chapter 17)	MSK Review		
6	June 11-15		<b>Quiz 1 (15%)</b>	Heart (Chapter 28)	Mini 1 & 2 Dropbox June 10	
7	June 18-22	CARDIO	Blood Vessels (Chapter 29 – Part 1)	Blood Vessels (Chapter 29 – Part 2), Circulation of Blood (Chapter 30 – Part 1)		
8	June 25-29		Circulation of Blood (Chapter 30 – Part 2)	Cardiac Imaging, Review		
9	July 2-6		<b>STAT HOLIDAY</b>	<b>Quiz 2 (15%)</b>		
10	July 9-13	RESPIRATORY	Respiratory Tract (Chapter 25)	Ventilation (Chapter 36 – Part 1 & 2)		
11	July 16-20		Gas Exchange & Transport (Chapter 37 – Part 1)	Gas Exchange & Transport (Chapter 37 – Part 2)		
12	July 23-27		Flex day	Respiratory Imaging Review		
13	July 30-August 3		<b>Quiz 3 (15%)</b>	Project presentations (10%)	Dropbox Final Project July 29th	
14	August 6-10	Presentations	<b>STAT HOLIDAY</b>	Project presentations (10%)		
15	August 13-17	<b>Cumulative Written Final on Covered Chapters &amp; Images (30%)</b>				

***The course schedule is subject to change at the discretion of the instructor.  
Do not make personal plans until the final exam schedule is posted by the registrar.***

## 5. Student Assessment

Professionalism	5%
Module Quizzes	45%
Mini-Assessments	10%
Project	10%
Cumulative Final Exam	30%
<b>TOTAL</b>	<b>100%</b>

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

### **Late Policy/Emergency Situations:**

Failure to turn in an assignment on time will result in a late penalty of 10% per day for up to five academic (business) days. After five days, the assignment will be given a grade of zero (0).

Missed quizzes cannot be made-up.

In emergency/mitigating circumstances, such as health problems or personal crises, exceptions to this will be made solely at the discretion of the instructor. Evidence of acute injury, illness, or other emergency situation may be required; however, this does not guarantee that an exception will be made. In such situations, it is highly recommended that the student make all efforts to communicate with the instructor at least 48 hours before the quiz/assignment date.

### **Final Exam**

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. 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 prior, written 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.

***For more detailed information regarding tests, quizzes, and assignments, see D2L.***

## 6. Grading System

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

**Standard Grading System (GPA)**

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## 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 the Grading Policy E-1.5 at the Education/Academic tab <http://camosun.ca/about/policies/policies.html> for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
<b>I</b>	<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.
<b>IP</b>	<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. (For these courses a final grade will be assigned to either the 3 <sup>rd</sup> . course attempt or at the point of course completion.)
<b>CW</b>	<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.

***For more information about Camosun's Grading Policy, please use the following link:***

<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>

## **7. Recommended Materials or Services to Assist Students**

### **STUDENT CONDUCT POLICIES**

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

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

### **LEARNING SUPPORT AND SERVICES FOR STUDENTS**

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

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

### **MRT PROFESSIONAL CODE OF ETHICS**

Camosun College Medical Radiography students are expected to abide by the Canadian Association of Medical Radiation Technologists' (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](#)

### **AHT Department Policies & Procedures**

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

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

## 8. GENERAL INFORMATION

### Suggested Study Time/Study Habits

- Successful students will probably spend 4 – 8 hours outside of class per week studying the content for this course to achieve full marks.
- Map out a study schedule; include time for reading, assignments, group work, and online content.
- It is valuable to review your notes within 24 hours following each class to help retain the information.
- Study groups are a highly effective way of learning for many students.

### Attendance

- Students are expected to be on time; tardiness disrupts the class.
- If you choose not to or are unable to attend lecture it is your responsibility to acquire all information given during a class missed, incl. notes, hand-outs, assignments, changed exam dates etc.
- Student attitudes and behaviours surrounding attendance contribute to the professionalism mark in the course; however, attendance is not recorded.

*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>