

MIDS 167 Basics of ECG
Winter 2020

COURSE OUTLINE

The course description is available on the web:
<http://camosun.ca/learn/calendar/current/web/mids.html#mids167>

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

1. Instructor Information

- (a) **Instructor** Jana Suraci
- (b) **Office hours** Monday 12:30-1:30pm, Wednesday 12:30-1:30pm
- (c) **Location** Office Room 317 Workstation #90
- (d) **Phone** (250) 370-3000 ext. 4755 **Alternative:**
- (e) **E-mail** suracij@camosun.ca
- (f) **Website**

2. Intended Learning Outcomes

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

- a) identify and explain the relationship of cardiac anatomy, physiology, and pathology to lead placement and recorded results.
- b) describe and demonstrate correct patient preparation, lead placement, equipment operation, calibration, and maintenance, used in non-invasive cardiac testing.
- c) determine and apply appropriate corrective actions or alternate methodology for a sub-optimal ECG accounting for patient age and condition, common errors, and known causes of anomalies.
- d) complete the required number of technically accurate electrocardiograms in accordance with British Columbia Society of Laboratory Science (BCSLs) eligibility requirements for clinical practicum participation.

3. Required Materials

Textbook: Aehlert, B. (2017) ECGs Made Easy 6th Edition

4. Course Content and Schedule

Week	Monday	Date	Wednesday Lecture	Date	Task/Assignments/Tests
1	LAB: Lab Assignment #1 Review Syllabus/Course Outline LECTURE: Chapter 1: Anatomy and Physiology of the Heart (Part 1)	Jan 6	LECTURE: Chapter 1: Anatomy and Physiology of the Heart (Part 2)	Jan 8	Readings: Ch. 1 Lab Assignment#1: Heart Colouring Page Due Jan 10 th by 11:59pm
2	LAB: Lab Assignment #2 LECTURE: Chapter 2: Basic Electrophysiology (Part 1)	Jan 13	LECTURE: Chapter 2: Basic Electrophysiology (Part 2) QUIZ #1: Label Anterior and Posterior of Heart	Jan 15	Readings: Ch. 2 Lab Assignment #2 due Jan 17 th by 11:59pm
3	LAB: Lab Assignment #3 LECTURE: Chapter 2: Basic Electrophysiology (Part 3)	Jan 20	LECTURE: Chapter 3: Electrocardiogram (Part 1)	Jan 22	Readings: Ch. 3 Lab Assignment #3 due Jan 24 th by 11:59pm
4	LAB: Lab Assignment #4 LECTURE: Chapter 3: Electrocardiogram (Part 2)	Jan 27	LECTURE: Chapter 4: Atrial Rhythms (Part 1)	Jan 29	Reading Ch. 4 Lab Assignment #4 due Jan 31 st by 11:59pm
5	LAB: Lab Assignment #5 LECTURE: Chapter 4: Atrial Rhythms (Part 2)	Feb 3	LECTURE: Flex Lecture	Feb 5	STUDY! Lab Assignment #5 due Feb 7 th by 11:59pm
6	LAB: Lab Assignment #6 LECTURE: Review for Midterm	Feb 10	LECTURE: Midterm	Feb 12	Lab Assignment #6 due Feb 14 th by 11:59pm ***Assignment #1: Parts of heart and their function due Feb 9 th by 11:59pm
7	READING WEEK – NO CLASS	Feb 17	READING WEEK – NO CLASS	Feb 19	Readings: Ch. 5
8	LAB: Lab Assignment #7 LECTURE: Chapter 5: Junctional Rhythms (Part 1)	Feb 24	LECTURE: Chapter 5: Junctional Rhythms (Part 2)	Feb 26	Readings: Ch. 5 Lab Assignment #7 due Feb 28 th by 11:59pm

9	LAB: Lab Assignment #8 LECTURE: Chapter 6: Ventricular Rhythms (Part 1)	March 2	LECTURE: Chapter 6: Ventricular Rhythms (Part 2)	March 4	Readings: Ch. 6 Lab Assignment #8 due March 6 th by 11:59pm
10	LAB: Lab Assignment #9 QUIZ #2 LECTURE: Chapter 7: Atrioventricular Blocks (Part 1)	March 9	LECTURE: Chapter 7: Atrioventricular Blocks (Part 2)	March 11	Readings: Ch. 7 Lab Assignment #9 due March 13 th by 11:59pm
11	LAB: Lab Assignment #10 LECTURE: Chapter 8: Pacemaker Rhythms and Devices (Part 1)	March 16	LECTURE: : Chapter 8: Pacemaker Rhythms and Devices (Part 2)	March 18	Readings: Ch. 8 Lab Assignment #10 due March 20 th by 11:59pm
12	LAB: Lab Assignment #11 LECTURE: Chapter 9: Intro to 12-Lead ECG (Part 1)	March 23	LECTURE: Chapter 9: Intro to 12-Lead ECG (Part 2)	March 25	Readings: Ch. 9. Lab Assignment #11 due March 27 th by 11:59pm
13	LAB: Review for Practical Exam LECTURE: Chapter 9: Intro to 12-Lead ECG (Part 3)	March 30	LECTURE: Troubleshooting/Flex Lecture	April 1	Review Material/Study!!
14	LAB: <u>Practical Exam</u> LECTURE: Review	April 6	Lecture: Review	April 9	***Assignment #2: ECG Rhythms package due April 6 th by 11:59pm.
15	Final Examination				

5. Basis of Student Assessment (Weighting)

Professionalism	5%
Quiz #1	5%
Quiz #2	5%
Assignment #1	10%
Assignment #2	10%
Labs	20%
Midterm	15%
Written Exam	15%
Practical Skills Exam	15%
TOTAL	100%

6. Grading System

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

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

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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:

<http://camosun.ca/about/mental-health/emergency.html> or
<http://camosun.ca/services/sexual-violence/get-support.html#urgent>

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 <http://camosun.ca/services>

College Policies

Policies are available on the College website at <http://camosun.ca/about/policies>. 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 college policies.

Education and academic policies include, but are not limited to, [Academic Progress](#), [Admission](#), [Course Withdrawals](#), [Grading](#), [Involuntary Health and Safety Leave of Absence](#), [Prior Learning Assessment](#), [Medical/Compassionate Withdrawals](#), [Sexual Violence and Misconduct](#), [Standards for Awarding Credentials](#), [Student Ancillary Fees](#), [Student Appeals](#), and [Student Penalties and Fines](#).

Student Conduct Policy

The [Student Conduct Policy](#) provides clear expectations of appropriate academic and non-academic student conduct and establishes processes for resolution of conduct issues or the imposition of sanctions for inappropriate conduct. It is the student's responsibility to become familiar with the content of this policy.

A. GRADING SYSTEMS

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

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.

Laboratory Participation

Laboratory activities are intended to be completed during scheduled lab time to enhance learning and solidify concepts that are of high importance to a Medical Lab Assistant student. Students are expected to take initiative to prepare themselves for each activity by completing assigned course readings or by completing any additional preparatory work that is assigned by the instructor. Students are encouraged to work collaboratively to complete laboratory activities, as well as seek help from the lab assistant or course instructor. Laboratory participation will often include a reflective component about the activity and content; therefore physical presence and active participation is essential.

Any laboratory worksheet that is provided should be completed and submitted online via the D2L Dropbox within the timeframe specified by the instructor (usually by the week). Grades will be assigned for completeness and accuracy. Laboratory worksheets and/or reflections that are not submitted within the specified timeframe will receive a grade of 0 (zero). Additionally, access to the lab space and

equipment is only available during scheduled lab times; therefore it will not be possible to make up missed lab activities.

Laboratory Evaluations

Laboratory evaluations consist of role playing scenarios, which combine practical skills and therapeutic communication skills in a simulated clinical environment. These evaluations are typically conducted in pairs, where partners will act as simulated patients for each other. These evaluations will isolate various aspects of patient management that are essential to providing competent patient care while performing procedures.

Midterm and Final Exam

The midterm and written final exam are administered online via D2L. For both tests, the content is cumulative from all lectures/labs/assigned readings up to that point in the course. The final exam will also include a practical exam for students to demonstrate the practical skills learned in the labs. Students who perform poorly on the midterm should seek help from the instructor as early as possible to work together to develop a plan for success.

With the exception of emergency circumstances, a student who does **not** notify the instructor ahead of time about absenteeism or does not have an acceptable reason for being absent the day of the midterm or final exam or a quiz will receive a grade of 0 (zero).

Illness and Emergency Circumstances

It is acknowledged that short-term illness or personal priorities that are of critical importance, such as an appointment with a specialist, may occasionally conflict with a course assessment. In this case, as long as the student notifies the instructor **before** the anticipated absence, the student **may** be provided the opportunity to make up an assessment. Notifying the instructor by email is considered an acceptable means of communication.

This exception is not intended to be the norm. Students are expected to be present for all course assessments. The instructor will use discretion to determine if the reason for absenteeism is acceptable and/or whether or not absenteeism is problematic. Reasons that are unacceptable include birthday parties, family gatherings, employment commitments, etc. Students who miss significant time may be at risk of falling behind in the course. The instructor will use discretion to determine what course of action will be taken for students who miss multiple activities and/or assessments.

Exceptions due to emergency circumstances, such as health problems or unavoidable family crises, require the approval of the instructor. In the case of an emergency, the student may be required to provide verification of the emergency circumstance as early as possible. Personal commitments, such as holidays or scheduled flights, are **not** considered to be emergencies.

For more information course assessments, see the materials posted to D2L.

Camosun Academic Policy: <http://camosun.ca/learn/calendar/current/pdf/academic-policies.pdf>