

CLASS SYLLABUS



COURSE TITLE: MIDS 187 – OB Sonography Procedures 2
CLASS SECTION: X01A-B
TERM: W2022
COURSE CREDITS: 3
DELIVERY METHOD(S): Blended

Camosun College campuses are located on the traditional territories of the Lək̓ʷəŋən and W̱SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here.
Learn more about Camosun's [Territorial Acknowledgement](#).

<https://camosun.ca/about/covid-19-updates>

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable explanation in advance, you will be removed from the course and the space offered to the next waitlisted student.

INSTRUCTOR DETAILS

NAME: Dustin Pendergast & Jenn Lawless
EMAIL: PendergastD@camosun.bc.ca LawlessJ@camosun.ca
OFFICE: CHW 317
HOURS: By Appointment

As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.

CALENDAR DESCRIPTION

Students expand on their understanding of the clinical applications of sonography for the surveillance of pregnancy. Students review relationships of the maternal and fetal anatomy while learning to recognize the normal and abnormal sonographic appearances of second and third trimester pregnancies. Students learn to select appropriate scanning protocols based on patient history, physiologic data, laboratory values, and complementary imaging studies.

PREREQUISITE(S): All of: C+ in MIDS 147; C+ in MIDS 151
CO-REQUISITE(S): n/a
PRE/CO-REQUISITE(S): n/a

COURSE DELIVERY

ACTIVITY	HOURS / WEEK	# OF WEEKS	ACTIVITY HOURS
Lecture	3	14	42
Seminar			

Lab / Collaborative Learning	2	14	28
Supervised Field Practice			
Workplace Integrated Learning			
Online			
	TOTAL HOURS		70

COURSE LEARNING OUTCOMES

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

- a) Explain the significance of gestational age, history, laboratory results, patient preparation, and body habitus on the approach to second and third trimester sonography and discuss the selection of protocols, transducers, and impact on resultant sonographic image quality.
- b) Explain how the normal and abnormal sonographic appearance of maternal and fetal anatomy alters depending on gestational age, physiological, hormonal, and pathological causes.
- c) Define and apply the components of a diagnostic examination to second and third trimester sonography.
- d) Discuss the significance of multiple gestations, congenital defects, catastrophic pathology, unexpected fetal death, and gender identification on parental bonding, selective abortions, and maternal welfare.
- e) Discuss the legal and ethical implications of gestational surveillance for student sonographers and graduates.
- f) Perform ultrasound examinations and collect measurements of all required maternal and fetal structures within the recommended Sonography Canada guidelines for scheduling and time allotments while scanning simulated patients, live subjects, or laboratory partners.

COURSE OBJECTIVES AND MAPPED PROFESSIONAL COMPETENCIES

(also known as “sub-outcomes” or “learning objectives”)

Expanded Learning Outcome(s)

c-1) define and apply the following key components of an ultrasound exam: professional conduct, interpret the request, plan the procedure, establish the patient relationship, execute the procedure and conclude the procedure in relation to second and third trimester sonography.

Sonography Canada Competencies:

Appendix A:

1	GYN, 1st, 2nd, 3rd	Adnexa
3	GYN, 1st, 2nd, 3rd	Cervix
8	GYN, 1st, 2nd, 3rd	Ovaries
9	GYN, 1st, 2nd, 3rd	Urinary bladder
10	GYN, 1st, 2nd, 3rd	Kidneys
16	2nd, 3rd	Abdominal circumference
17	2nd, 3rd	Biparietal diameter
18	2nd, 3rd	Femur length

19	2nd, 3rd	Head circumference
20	2nd, 3rd	Anterior horn lateral ventricles
21	2nd, 3rd	Atria of lateral ventricles
22	2nd, 3rd	Cavum septi pellucidi
23	2nd, 3rd	Cerebellum
24	2nd, 3rd	Cerebral vessels
25	2nd, 3rd	Choroid plexus
26	2nd, 3rd	Cisterna magna
27	2nd, 3rd	Falx cerebri
28	2nd, 3rd	Skull
29	2nd, 3rd	Thalamus
30	2nd, 3rd	Third ventricle
32	2nd, 3rd	Cervical spine
33	2nd, 3rd	Lumbo-sacral spine
34	2nd, 3rd	Thoracic spine
35	2nd, 3rd	Facial profile
36	2nd, 3rd	Palate
37	2nd, 3 rd	Mouth / lips
38	1st, 2nd, 3rd	Nasal bones
39	2nd, 3rd	Orbits
41	2nd, 3rd	Nuchal fold
42	2nd, 3rd	Diaphragm
43	2nd, 3rd	Lungs
44	2nd, 3rd	Thoracic shape
45	1st, 2nd, 3rd	Fetal heart rate
46	2nd, 3rd	Situs
47	2nd, 3rd	Size
48	2nd, 3rd	Axis
49	2nd, 3rd	4 Chamber fetal heart
50	2nd, 3rd	Aortic arch
51	2nd, 3rd	Ductal arch
52	2nd, 3rd	Outflow tracts
53	2nd, 3rd	Three vessel view
54	2nd, 3rd	Adrenals
55	2nd, 3rd	Aorta
56	2nd, 3rd	Bowel
57	2nd, 3rd	Gallbladder
58	2nd, 3rd	Kidneys
59	2nd, 3rd	Liver
60	2nd, 3rd	Renal pelvis
61	2nd, 3rd	Spleen
62	1st, 2nd, 3rd	Stomach
63	1st, 2nd, 3rd	Umbilical cord
64	2nd, 3rd	Fetal insertion
65	2nd, 3rd	Placental insertion
66	2nd, 3rd	Vessels
67	1st, 2nd, 3rd	Urinary bladder
68	2nd, 3rd	Genitalia
69	2nd, 3rd	Contour
70	2nd, 3rd	Thickness
72	2nd, 3rd	Feet
73	2nd, 3rd	Femora

74	2nd, 3rd	Fibula
75	2nd, 3rd	Hands
76	2nd, 3rd	Humeri
77	2nd, 3rd	Radius
78	2nd, 3rd	Ribs
79	2nd, 3rd	Tibia
80	2nd, 3rd	Ulna
81	1st, 2nd, 3rd	Placental location / development
82	2nd, 3rd	Grading
83	2nd, 3rd	Relation to internal os
84	2nd, 3rd	Thickness
85	2nd, 3rd	Amniotic Fluid -Single Pocket Evaluation
86	2nd, 3rd	Amniotic fluid index
87	1st, 2nd, 3rd	Chorionicity
88	2nd, 3rd	Cervical length
89	2nd, 3rd	Fetal lie
90	2nd, 3rd	Fetal presentation
91	1st, 2nd, 3rd	Number of Fetuses
93	3rd	Cord Doppler
94	3rd	Amniotic fluid
95	3rd	Breathing
96	3rd	Fetal movement
97	3rd	Fetal tone

REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

Required Texts

Stephenson. (2017). *Obstetrics & Gynecology* (4th ed.). Wolters Kluwer.

Hall-Terracciano, B., & Stephenson, S. R. (2018). *Workbook for diagnostic medical sonography: a guide to clinical practice, obstetrics and gynecology* (4th ed.). Wolters Kluwer.

Optional Materials

Hagen-Ansert, S. L. (2018). *Textbook of diagnostic sonography* (8th ed.). St. Louis, MO: Elsevier.

Hagen-Ansert, S. L. (2018). *Workbook for textbook of diagnostic sonography*. St. Louis, MO: Elsevier/Mosby.

Henningsen, C., Kuntz, K., & Youngs, D. J. (2014). *Clinical guide to sonography: exercises for critical thinking* (2nd ed.). St. Louis, MO: Mosby

COURSE SCHEDULE, TOPICS, AND ASSOCIATED PREPARATION / ACTIVITY / EVALUATION

The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

WEEK	DATE	TOPIC	READINGS	LEARNING OUTCOMES	SONOGRAPHY CANADA COMPETENCY
1	Jan 10*, 13 *4 pm LEC Note: All Monday Lectures Online	1. Introduction to Course Review course outline Gestational Age and Measurements Indications for 2 nd /3 rd trimester ultrasounds 2. Protocols and transducer/equipment considerations for 2 nd /3 rd trimester 3. Establishing Fetal Lie/Presentation/Cervix	Chapter 14, 18	a	Appendix A: 16, 17, 18, 19, Appendix A: 1, 3, 8, 9, 10, 88, 89, 90, 91
	Jan 11, 12	LAB: Maternal Cervix, Fetal Lie Simulation		c	
2	Jan 17*, 18 *4 pm LEC	1. Fetal Head-Measurements and intro to neural imaging for 2 nd /3 rd Trimesters 2. Fetal Face and Neck and Nuchal Fold Assessment	Chapter 21, 22	b	Appendix A: 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 Appendix A: 35, 36, 37, 38, 39, 41
	Jan 18, 19	LAB: Fetal Head and Biometry Measurements		c	
3	Jan 24*, 27 *4 pm LEC	1. Fetal Placenta Umbilical cord and Abnormalities/Placental Grading/ Cord Doppler 2. Amniotic Fluid Membranes and Abnormalities/variations and Measurements 3. IUGR	Chapter 19, 30	b	Appendix A: 63, 64, 65, 66, 81, 82, 83, 84, 93 Appendix A: 85, 86, 94
	Jan 25, 26	LAB: Fetal Head anatomy, Measuring AFI, DVP		c	
4	Jan 31, Feb 3	1. QUIZ 2. Fetal Thorax/Abdominal Wall, Skin, Diaphragm, Shape	Chapter 24, 25	b	Appendix A: 42, 43, 44, 69, 70
	Feb 1,2	LAB: Assessment 1: Fetal Head & Biometry Measurements		c, f	
5	Feb 7, 10	1. Fetal Heart evaluation: Normal Anatomy, FHR, Arch, RVOT, LVOT, 3 Vessel View, Situs and Size	Chapter 23	b	Appendix A: 45, 46, 47, 48, 49, 50, 51, 52, 53
	Feb 8, 9	LAB: Fetal Heart Simulation 1		c	
6	Feb 14, 17	1. Fetal Heart Congenital Disease 2. No Lecture SonoSim Assignment 1 Due		b, d	
	Feb 15, 16	LAB: Fetal Heart Simulation 2		c	

WEEK	DATE	TOPIC	READINGS	LEARNING OUTCOMES	SONOGRAPHY CANADA COMPETENCY
7	Feb 20	Reading Week, No Classes			
8	Feb 28, Mar 3	1. Review Session <i>Workbook Activity 1 Due</i> 2. MIDTERM			
	Mar 1, 2	LAB: Assessment 2: Normal Fetal Heart		c	
9	Mar 7, 10	1. Fetal Abdomen and pathology 2. Fetal Urogenital System and pathology	Chapter 25, 26	b	<i>Appendix A: 54, 55, 56, 57, 58, 59, 60, 61, 62</i> <i>Appendix A: 67, 68</i>
	Mar 8, 9	LAB: Fetal Abdomen Simulation		c	
10	Mar 14, 17	1. Fetal Spine 2. Fetal Skeleton	Chapter 22, 27	b	<i>Appendix A: 32, 33, 34, 72, 73, 74, 75, 76, 77, 78, 79, 80</i>
	Mar 15, 16	LAB: Fetal Skeleton		c	
11	Mar 21, 24	1. Multiple Gestation in the 2 nd and 3 rd Trimester; chorionicity, membranes 2. Ethics for Obstetrical Sonography	Chapter 29 D2L	b, d, e	Appendix A: 87, 91
	Mar 22, 23	LAB: Assessment 3: Fetal Biometry Measurements 2		c, f	
12	Mar 28, 31	1. Soft Marker evaluation 2. The role of Ultrasound in parent-child bonding SonoSim Assignment 2 Due	SOGC Document, D2L D2L Readings	d	
	Mar 29, 30	LAB: Soft Markers		c	
13	Apr 4, 7	1. Biophysical Profile Procedure: Fetal Breathing, Movement & Tone in the 3 rd Trimester	Chapter 28	d	<i>Appendix A: 95, 96, 97</i>
	Apr 5, 6	LAB: Assessment 4: Fetal Limbs, Skeleton, Abdomen		c	
14	Apr 11, 14	1. Fetal Anomalies 2. The Post-Partum Uterus 3. Review Session <i>Workbook Activity 2 Due</i>	Chapter 31, 33	d	
	Apr 12, 13	LAB: Final Assessment: Fetal Heart (subject to change)		c, f	
15	TBD	Cumulative Final*			

**Do not book travel or flights until the final examination schedule has been published by the registrar.*

Students registered with the Centre for Accessible Learning (CAL) who complete quizzes, tests, and exams with academic accommodations have booking procedures and deadlines with CAL where advanced notice is required. Deadlines can be reviewed on the [CAL exams page](http://camosun.ca/services/accessible-learning/exams.html). <http://camosun.ca/services/accessible-learning/exams.html>

STUDENT EVALUATION

DESCRIPTION	WEIGHTING
Skill Assessment 1	6.5%
Skill Assessment 2	6.5%
Skill Assessment 3	6.5%
Skill Assessment 4	6.5%
SonoSim Assignments	2%
Workbook Activities	2%
Quiz	5%
Midterm	15%
Final Exam	25%
Final Skills Assessment	25%
TOTAL	100%

If you have a concern about a grade you have received for an evaluation, please come and see me as soon as possible. Refer to the [Grade Review and Appeals](http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf) policy for more information.

<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf>

COURSE GUIDELINES & EXPECTATIONS

TBD by Instructor

SCHOOL OR DEPARTMENTAL INFORMATION

Health & Human Services Student Handbook: <http://camosun.ca/learn/school/health-human-services/student-info/index.html>

General Practicum Information: <http://camosun.ca/learn/school/health-human-services/student-info/practicum-info.html>

Allied Health & Technologies Department Handbooks:

- Certified Medical Laboratory Assistant: <http://camosun.ca/learn/school/health-human-services/student-info/program-info/cmla.html>
- Diagnostic Medical Sonography: <http://camosun.ca/learn/school/health-human-services/student-info/program-info/sono.html>

- Medical Radiography: <http://camosun.ca/learn/school/health-human-services/student-info/program-info/mrad.html>

Students enrolled in Allied Health & Technologies Programs must achieve a minimum of 65% or a “COM” in each of their courses in order to use their course as a pre-requisite and progress in their program.

Students enrolled in Allied Health & Technologies Programs must participate in learning activities that include intimate and direct personal contact with their classmates during supervised practice. Students are training to perform the duties of a healthcare professional. These duties usually require constant, close physical contact with patients and clients. Students may be required to simulate and perform these activities on one another during this course. Students may also be required to use special hygiene practices and protective gear to protect themselves from the transmission of communicable diseases (like COVID-19). Risks associated with learning and performing the physical duties of a healthcare profession cannot be entirely eliminated by any amount of caution or protection. Students who refuse, or are incapable of participating and performing these activities due to personal or medical limitations, may only continue to participate in their course work when supported by officially registered accommodations or temporary medical advisory.

STUDENT RESPONSIBILITY

Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

SUPPORTS AND SERVICES FOR STUDENTS

Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit <http://camosun.ca/students/>.

Support Service	Website
Academic Advising	http://camosun.ca/advising
Accessible Learning	http://camosun.ca/accessible-learning
Counselling	http://camosun.ca/counselling
Career Services	http://camosun.ca/coop
Financial Aid and Awards	http://camosun.ca/financialaid
Help Centres (Math/English/Science)	http://camosun.ca/help-centres
Indigenous Student Support	http://camosun.ca/indigenous
International Student Support	http://camosun.ca/international/
Learning Skills	http://camosun.ca/learningskills

Support Service	Website
Library	http://camosun.ca/services/library/
Office of Student Support	http://camosun.ca/oss
Ombudsperson	http://camosun.ca/ombuds
Registration	http://camosun.ca/registration
Technology Support	http://camosun.ca/its
Writing Centre	http://camosun.ca/writing-centre

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

Academic Accommodations for Students with Disabilities

The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the [Centre for Accessible Learning](#) (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started: <http://camosun.ca/services/accessible-learning/>

Academic Integrity

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf> for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

Academic Progress

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

Course Withdrawals Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <http://camosun.ca/learn/fees/#deadlines>.

Grading Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for further details about grading.

Grade Review and Appeals

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

Mandatory Attendance for First Class Meeting of Each Course

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the “Attendance” section under “Registration Policies and Procedures” (<http://camosun.ca/learn/calendar/current/procedures.html>) and the Grading Policy at <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>.

Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf> to learn more about the process involved in a medical/compassionate withdrawal.

Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun’s Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student’s right to choose what is right for them. For more information see Camosun’s Sexualized Violence and Misconduct Policy: <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.9.pdf> and camosun.ca/sexual-violence. To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-370-3841

Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College’s Student Misconduct Policy at <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf> to understand the College’s expectations of academic integrity and student behavioural conduct.

Changes to this Syllabus: Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.