



Course Syllabus

Course title: Abdominal Sonography Procedures & Scanning Basics

Class section: MIDS - 127 - X01

Term: 2025S

Course credits: 3

Total hours: 60

Delivery method: In-Person

Territorial acknowledgment

Camosun College respectfully acknowledges that our campuses are situated on the territories of the Ləkʷəŋən (Songhees and Kosapsum) and W̱SÁNEĆ peoples. We honour their knowledge and welcome to all students who seek education here.

Instructional hours

Lecture hours: 4 per W

W = Week

T = Term

Instructor details

Name: Bridget Mavety

Email: MavetyB@camosun.ca

Course description

Course Description:

Students are introduced to the basic clinical applications of sonography as a diagnostic investigation tool. Students review anatomic relationships in the abdomen while learning to recognize the normal and abnormal sonographic appearances of the peritoneal and retroperitoneal cavities, abdominal vasculature, liver, biliary system, pancreas, urinary and adrenal systems, spleen and gastrointestinal system. Students focus on learning the basic components of ultrasound procedures and abdominal protocols.

Prerequisites:

One of:

- B in English 12
- B in Camosun Alternative

And one of:

- B in Anatomy and Physiology 12
- B in Camosun Alternative
- B in BIOL 143
- B in BIOL 150
- B in BIOL 152 and BIOL 153
- B in PNUR 101

Pre or Co-requisites:

All of:

- C+ in AHLT 266

Learning outcomes

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

1. Explain the history and foundations of clinical sonography.
2. Describe the clinical applications for sonographic investigations in diagnostic medicine.
3. Describe proper ergonomics and safe practices designed to reduce the risk of work-related injuries and identify the most common practice limiting conditions and their causes experienced by sonographers
4. Explain how the normal and abnormal sonographic appearance of the peritoneal and retroperitoneal cavities, abdominal vasculature, liver, biliary system, pancreas, urinary and adrenal systems, spleen and gastrointestinal system are identified and differentiated across gender, age, and habitus.
5. Define and apply the components of a diagnostic examination to abdominal sonography.
6. Discuss the implications of varied patient health conditions (physical, emotional, etc.) on routine examinations of the body and the necessity for Diagnostic Sonographers to respond appropriately.

Competency mapping

Sonography Canada Competencies:

5.2a Correlate results from laboratory tests, aspirations and biopsies.

Appendix B: Abdomen

1 Abdominal aorta

3 Adrenal glands

4 Celiac trunk

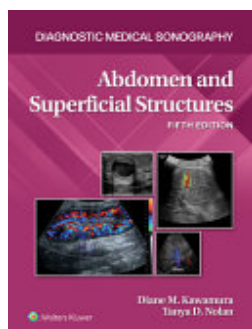
6 Common iliac arteries

8 Inferior vena cava

9 Liver

- 10 Pancreas
- 11 Peritoneal, retroperitoneal cavities/spaces
- 12 Spleen
- 13 Splenic vein
- 14 Superior mesenteric artery
- 16 Common hepatic duct
- 17 Common bile duct
- 18 Cystic duct
- 19 Intrahepatic ducts
- 20 Appendix
- 21 Small bowel
- 22 Large bowel
- 23 Stomach
- 24 Kidneys
- 27 Ureters
- 28 Urinary bladder

Course reading materials



Title: Abdomen and Superficial Structures

Authors: Tanya Nolan, Diane Kawamura

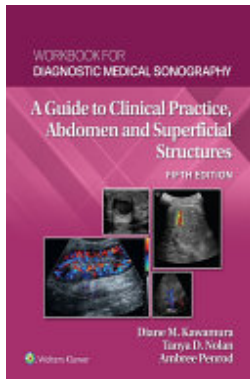
Publisher: LWW

Publication Date: 2022-11-23

Edition: 5th

Required/Optional: Required

Title: Workbook for Diagnostic Medical Sonography: Abdominal and



Superficial Structures

Authors: Diane Kawamura, Tanya Nolan

Publisher: Lippincott Williams & Wilkins

Publication Date: 2022-08-30

Edition: 5th

Required/Optional: Required

Course schedule

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

WEEK	DATE	LESSON	READINGS	LEARNING OUTCOMES	LEARNING OBJECTIVES	SONOGRAPHY CANADA COMPETENCY
1	Mon. May 05	<ul style="list-style-type: none">• Introduction to course• Review course outline<u>Lesson 1:</u>• History of ultrasound• Clinical uses of ultrasound• Role of the Sonographer• Components of an ultrasound examination• Understanding basic ultrasound imaging and principles• Ultrasound terminology and basics	Chapter 2	1, 2, 5, 6	1.0-1.11	
	Wed. May 07	<u>Lesson 2:</u> <ul style="list-style-type: none">• Ergonomics for Sonography	Chapter 3	3	2.0-2.10	
2	Mon. May 12	<ul style="list-style-type: none">• Quiz #1: Introduction & Ergonomics• Workbook Assignment #1<u>Lesson 3:</u>• Normal & Abnormal Anatomy of the Abdominal Vasculature	Chapter 6	4	3.0-3.34 Area 5: 5.2a, 5.2b	Appendix B: 1, 4, 6, 8, 13, 14
	Wed. May 14	<ul style="list-style-type: none">• Normal & Abnormal Anatomy of the Abdominal Vasculature				
3	Mon. May 19	HOLIDAY				
	Wed. May 21	<ul style="list-style-type: none">• Quiz #2: Abdominal Vasculature• Workbook Assignment #2<u>Lesson 4:</u>• Normal Anatomy of the Liver	Chapter 7	4	4.22-4.41	Area 5: 5.2a, 5.2b Appendix B: 9, 19
	Mon. May 26	<ul style="list-style-type: none">• Abnormal Anatomy of the Liver				
4	Wed. May 28					

5	Mon. June 02	<ul style="list-style-type: none"> • Quiz #3: Liver • Workbook Assignment #3 Lesson 5: • Normal Anatomy of the Gallbladder and Biliary System 	Chapter 8	4	5.0-5.52	Area 5: 5.2a, 5.2b Appendix B: 15, 16, 17, 18, 19
	Wed. June 04	<ul style="list-style-type: none"> • Abnormal Anatomy of the Gallbladder and Biliary System 				
6	Mon. June 09	<ul style="list-style-type: none"> • Abnormal Anatomy of the Gallbladder and Biliary System 	Chapter 9	4	6.0-6.35	Area 5: 5.2a, 5.2b Appendix B: 10, 13
	Wed. June 11	<ul style="list-style-type: none"> • Quiz #4: Biliary System • Workbook Assignment #4 Lesson 6: • Normal and Abnormal Anatomy of the Pancreas 				
7	Mon. June 16	Lesson 7: <ul style="list-style-type: none"> • Normal and Abnormal Anatomy of the Spleen 	Chapter 10	4	7.0-7.27	Area 5: 5.2a, 5.2b Appendix B: 12, 13
	Wed. June 18	<ul style="list-style-type: none"> • Quiz #5: Pancreas & Spleen • Workbook Assignment #5 <p>Midterm Review</p>		1-6		Area 5: 5.2a, 5.2b Appendix B: 1, 3, 4, 6, 8, 9, 10, 12-19
8	Mon. June 23	Midterm		1-6		Area 5: 5.2a, 5.2b Appendix B: 1, 3, 4, 6, 8, 9, 10, 12-19
	Wed. June 25	Lesson 8: <ul style="list-style-type: none"> • Normal Anatomy of the Upper Urinary System 	Chapter 12	4	8.0-8.7	Area 5: 5.2a, 5.2b Appendix B: 24, 27
9	Mon. June 30	<ul style="list-style-type: none"> • Abnormal Anatomy of the Upper Urinary System 	Chapter 12	4	8.8-8.89	Area 5: 5.2a, 5.2b Appendix B: 24, 27
	Wed. July 02					
10	Mon. July 07	<ul style="list-style-type: none"> • Abnormal Anatomy of the Upper Urinary System 	Chapter 12	4	8.8-8.89	Area 5: 5.2a, 5.2b Appendix B: 24, 27
	Wed. July 09					

11	Mon. July 14	<ul style="list-style-type: none"> • Quiz #6: Upper Urinary System • Workbook Assignment #6 Lesson 9: <ul style="list-style-type: none"> • Normal Anatomy of the Lower Urinary System Lesson 10: <ul style="list-style-type: none"> • Normal Anatomy of the Adrenal Glands 	Chapter 13&15	4	9.0-9.18 10.0-10.34	Area 5: 5.2a, 5.2b Appendix B: 3, 24, 27, 28
	Wed. July 16	<ul style="list-style-type: none"> • Abnormal Anatomy of the Adrenal Glands 	Chapter 15	4	10.0-10.33	Area 5: 5.2a, 5.2b Appendix B: 3
12	Mon. July 21	<ul style="list-style-type: none"> • Quiz #7: Lower Urinary System & Adrenal Glands • Workbook Assignment #7 Lesson 11: <ul style="list-style-type: none"> • Normal and Abnormal Anatomy of the Gastrointestinal Tract 	Chapter 11	4	11.0-11.49	Area 5: 5.2a, 5.2b Appendix B: 20, 21, 22, 23
	Wed. July 23	<ul style="list-style-type: none"> • Normal and Abnormal Anatomy of the Gastrointestinal Tract 				
13	Mon, July 28	<ul style="list-style-type: none"> • Quiz #8: GIT • Workbook Assignment #8 Lesson 12: <ul style="list-style-type: none"> • Normal and Abnormal Anatomy of the Retroperitoneum 	Chapter 16	4	12.0-12.28	Area 5: 5.2a, 5.2b Appendix B: 11
	Wed. July 30	Lesson 13: <ul style="list-style-type: none"> • Normal and Abnormal Anatomy of the Peritoneal Cavity Lesson 14: <ul style="list-style-type: none"> • Point of Care Ultrasound (POCUS) 	Chapter 5 Chapter 25	4	13.0-13.37 14.0-14.6	Area 5: 5.2a, 5.2b Appendix B: 11
		<ul style="list-style-type: none"> • Quiz #9: Retroperitoneum & Peritoneal Cavity & POCUS (ONLINE: due Wed. Aug 06 at 8:00AM) • Workbook Assignment #9 (due Wed. Aug 06 at 8:00AM) 				
	Mon. Aug 04	HOLIDAY				
14	Wed. Aug 06	Final Review Session		1-6		Area 5: 5.2a, 5.2b Appendix B: 1, 3, 4, 6, 8-24, 27, 28
15	TBD	Cumulative Final*		1-6		Area 5: 5.2a, 5.2b Appendix B: 1, 3, 4, 6, 8-24, 27, 28

Assessment and evaluation

Type	Description	Weight
Quizzes and tests	Weekly quizzes (9 quizzes at 3% each)	27
Assignment	Workbook Assignments (9 assignments at 2% each)	18

Type	Description	Weight
Exams (Midterms and finals)	Midterm	22
Exams (Midterms and finals)	Cumulative exam	33

Course guidelines and expectations

Program Handbook

Refer to the [Diagnostic Medical Sonography \(SONO\) Program Handbook](#) for classroom and lab etiquette as well as professional behaviour expectations (create a link whenever possible).

Late Policy

All quizzes and assignments are to be completed and submitted by the due date. Quizzes and assignments that are not submitted by the due date will receive a grade of zero (0). Extensions to assessment due dates may be granted on a case-by-case basis for significant, or unforeseen circumstances. Extensions will only be considered if adequate notice is received prior to the due date.

Use of Artificial Intelligence (AI)

To achieve the program learning outcomes and course learning objectives, the use of generated artificial intelligence (AI) tools is prohibited unless explicitly stated on the course syllabus. If AI tools are used when not permitted, this would be a violation of Camosun College's Academic Integrity Policy and students may be subject to sanctions as per the policy.

Final Examination & Final Grade

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

Students must achieve a minimum of 65% for their final grade to pass the course and to use this course as a pre or co-requisite.

College policies and student responsibilities

The college expects students to be responsible, respectful members of the college community. Responsible students meet expectations about attendance, assignments, deadlines, and

appointments. They become familiar with academic policies and regulations, and their rights and responsibilities.

College policies are available online at the [Policies and Directives](#) page. Academic regulations are detailed on the [Academic Policies and Procedures for Students](#) page.

Policies all students should be familiar with include the [Academic Integrity Policy](#). This policy expects students to be honest and ethical in all aspects of their studies. It defines plagiarism, cheating, and other forms of academic dishonesty. Infractions of this policy can result in loss of marks or a failing grade. To learn more about plagiarism and cheating, including the use of artificial intelligence, review the [Academic Integrity Guide](#).

The [Academic Accommodations for Students with Disabilities Policy](#) defines how Camosun provides appropriate and reasonable academic accommodations. The Centre for Accessible Learning (CAL) coordinates academic accommodations. Students requiring academic accommodations should request and arrange accommodations through CAL. Contact CAL at least one month before classes start to ensure accommodations can be put in place in time. Accommodations for quizzes, tests, and exams must follow CAL's booking procedures and deadlines. More information is available on the [CAL website](#).

Students must meet the grading and promotion standards to progress academically. More information is available in the [Grading Policy](#).

The college uses two grading systems. A course will either use the standard letter grade system (A+ to F) or a competency-based approach with grades of complete, completed with distinction or not completed. Visit the [Grades/GPA page](#) for more information.

Students must meet the college's academic progress standards to continue their studies. A student is not meeting the standards of progress when a GPA falls below 2.0. The college offers academic supports for students at risk of not progressing. The [Academic Progress Policy](#) provides more details.

If you have a concern about a grade, contact your instructor as soon as possible. The process to request a review of grades is outlined in the [Grade Review and Appeals Policy](#).

The [Course Withdrawals Policy](#) outlines the college's requirements for withdrawing from a course. Consult the [current schedule](#) of deadlines for fees, course drop dates, and tuition refunds.

If students experience a serious health or personal issue, they may be eligible for a [medical or compassionate withdrawal](#). The [Medical/Compassionate Withdrawal Request Form](#) outlines what is required.

The [Acceptable Technology Use](#) policy ensures the use of the college network and computers contribute to a safe learning environment. This policy also applies to the use of personal devices with the college network.

Students experiencing sexual violence can get support from the Office of Student Support. This Office of Student support is a safe and private place to discuss supports and options. More information is available on the [sexual violence support and education site](#). Students can email oss@camosun.ca or phone 250-370-3046 or 250-370-3841.

The [Student Misconduct Policy](#) outlines the college's expectations of conduct. Students should behave to contribute to a positive, supportive, and safe learning environment.

The [Ombudsperson](#) provides an impartial, independent service to help students understand college policies.

Services for students

Successful students seek help and access college services. These services are recommended to make the most of your time at college.

Services for Academic Success

- [Career Lab](#): Connects students with work-integrated learning experiences, including co-op placements and career fairs.
- [English, Math, and Science Help Centres](#): Get one-on-one help with homework.
- [Library](#): Get help with research, borrow materials, and access e-journals and e-books. Libraries at both campuses provide computers, individual and group study spaces.
- [Makerspace](#): A place to innovate, collaborate, and learn new skills and technology in a fun, dynamic, inclusive environment.
- [Writing Centre & Learning Skills](#): Get assistance with academic writing or meet with a learning skills specialist for help with time management, preparing for exams, and study skills.

Enrolment, Registration, and Records

- [Academic Advising](#): Talk to an academic advisor for help with program planning.
- [Financial Aid and Awards](#): Learn about student loans, bursaries, awards, and scholarships.
- [Registration](#): Get information about Camosun systems, including myCamosun, and college policies and procedures.
- [Student Records](#): Get verification of enrolment to access funding, request a transcript, or credential.

Wellness and Cultural Supports

- [Counselling](#): It's normal to feel overwhelmed or unsure of how to deal with life's challenges. The college's team of professional counsellors are available to support you to stay healthy.

Counselling is free and available on both campuses. If you need urgent support after-hours, contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

- [Centre for Indigenous Education and Community Connections](#): Provides cultural and academic supports for Indigenous students.
- [Camosun International](#): Provides cultural and academic supports for international students.
- [Fitness and Recreation](#): Free fitness centres are located at both campuses.

For a complete list of college services, see the [Student Services](#) page.

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 the course content or schedule. When changes are necessary the instructor will give clear and timely notice.