



Course Syllabus

Course title: Pediatric & Superficial Structures in Sonography Procedures

Class section: MIDS - 227 - BX01B

Term: 2025S

Course credits: 3

Total hours: 75

Delivery method: Blended

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: 3 per W

Lab hours: 2 per W

W = Week

T = Term

Instructor details

Name: Breanna Delgaty

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Course description

Course Description:

Students enhance their understanding of the clinical applications of sonography as a diagnostic investigation tool in pediatric populations. Students also analyze anatomic relationships of small and superficial structures while learning to recognize the normal and abnormal sonographic appearances of the breast, lymph nodes, groin, parathyroid, neck, salivary glands, superficial tissues, bursae, and thyroid. Students learn to select appropriate scanning protocols based on patient age, history, physiologic data, laboratory values, and complementary imaging studies.

Prerequisites:

All of:

- C+ in MIDS 181
- C+ in MIDS 197

Learning outcomes

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

1. Demonstrate the ability to correctly initiate pediatric and superficial ultrasound examinations by selecting the appropriate exam types, transducers, and worklist entries while scanning simulated patients, laboratory partners, and analyzing case scenarios.
2. Demonstrate knowledge of correct daily use and procedures for cleaning, re-processing, transporting, and storing transducers and equipment used during laboratory practice by maintaining sanitary workspaces.

3. Demonstrate the ability to operate ultrasound equipment during pediatric and superficial exams by using basic scanner controls and anatomic knowledge to select optimal acoustic windows and harmonics, ergonomically orient and manipulate transducers, and record pertinent data while scanning simulated patients, laboratory partners, and analyzing case scenarios.
4. Apply and convey basic knowledge of anatomy, scientific principles, patient considerations, communication skills, and professional behaviours of a student Diagnostic Medical Sonographer under the direct supervision of instructors.
5. Perform ultrasound examinations of required pediatric and superficial structures within the recommended Sonography Canada guidelines for scheduling and time allotments while scanning simulated patients, laboratory partners, and analyzing case scenarios.

Competency mapping

Sonography Canada Competencies:

3.3c Perform palpation of areas of interest.

Appendix B: Abdomen

2 Abdominal wall

5 Chest and Thorax

Appendix C: Superficial Structures

1 Breast

2 Inguinal region

3 Superficial tissues

5 Lymph nodes

6 Popliteal fossa

8 Salivary glands

9 Parathyroid

10 Thyroid

Course reading materials

Title: Abdomen and superficial structures (5th ed.).

Authors: Kawamura, D. M., & Nolan, T. D.

Publication Date: 2023

Edition: 5th

Required/Optional: Required

Title: Workbook for diagnostic medical sonography: a guide to clinical practice, abdomen and superficial structures (5th ed.)

Authors: Kawamura, D. M., & Nolan, T. D.

Publication Date: 2023

Edition: 5th

Required/Optional: Required

Title: Textbook of diagnostic sonography (8th ed.).

Authors: Hagen-Ansert, S. L.

Publication Date: 2018

Edition: 8th

Required/Optional: Optional

Title: Workbook for textbook of diagnostic sonography

Authors: Hagen-Ansert, S. L.

Publication Date: 2018

Required/Optional: Optional

Title: Clinical guide to sonography: exercises for critical thinking (2nd ed.).

Authors: Henningsen, C., Kuntz, K., & Youngs, D. J.

Publication Date: 2014

Edition: 2nd

Required/Optional: Optional

Course schedule

WEEK	DATE	LESSON	READINGS	LEARNING OUTCOMES	LEARNING OBJECTIVES	SONOGRAPHY CANADA COMPETENCY
1	May 5	- Introduction to course & Review syllabus <u>Lesson 1:</u> - Clinical uses of ultrasound in superficial imaging - Sonography of the superficial structures - Anatomy of the neck overview	<i>Abdomen & Superficial Structures</i> Ch.17 p. 495-501	6, 7	1.0-1.7	Appendix C: 5, 8, 9, 10
	LAB: May 7, 9	<u>Lesson 2:</u> - Transducer selection for small part imaging - Neck imaging protocol - Identifying structures, landmarks and regions of the neck		1, 2, 3,	2.0-2.5	Appendix C: 8, 10
	Asynchronous	<u>Lesson 3:</u> - Anatomy and physiology of the thyroid		7	3.0-3.6	Appendix C: 10
2	May 12	<u>Lesson 4:</u> - Pathology of the thyroid - TIRADS and thyroid biopsies	<i>Abdomen & Superficial Structures</i> Ch.17 p. 501-518	4, 6, 7	4.0-4.14	Appendix C: 10

WEEK	DATE	LESSON	READINGS	LEARNING OUTCOMES	LEARNING OBJECTIVES	SONOGRAPHY CANADA COMPETENCY
	LAB: May 14,16	<u>Lesson 5:</u> - Thyroid protocol review - Thyroid imaging		1, 2, 3, 4, 7	5.0-5.6	Appendix C: 10
	Asynchronous	<u>Lesson 6:</u> - Anatomy and pathology of the salivary glands - The thymus gland		7	6.0-6.21	Appendix C: 8
3	May 19	No lecture due to holiday (Victoria day)				
	LAB: May 21, 23	<u>Lesson 7:</u> - Thyroid Mock Assessment (timed)		1, 2, 3, 4, 5, 7	7.0-7.2	Appendix C: 10
	Asynchronous	<u>Lesson 8:</u> - Miscellaneous neck masses - Lymph nodes of the neck (normal & abnormal)	<i>Abdomen & Superficial Structures</i> Ch.17 p. 523-528	6, 7	8.0-8.6	Appendix C: 5
4	May 26	<u>Lesson 9</u> - Anatomy & physiology of the parathyroid glands - Pathology of the parathyroid glands	<i>Abdomen & Superficial Structures</i> Ch.17 p. 519-523	4, 6, 7	9.0-9.9	Appendix C: 9
	LAB: May 28, 30	<u>Lesson 10:</u> Skills assessment: Thyroid (timed)		1, 2, 3, 4, 5, 7	10.0-10.3	Appendix C: 10

WEEK	DATE	LESSON	READINGS	LEARNING OUTCOMES	LEARNING OBJECTIVES	SONOGRAPHY CANADA COMPETENCY
	Asynchronous	<u>Lesson 11:</u> - Introduction to breast ultrasound - Breast screening programs in North America - Breast screening utilizing ultrasound & mammography - Anatomy of the breast	<i>Abdomen & Superficial Structures</i> Ch.18 p. 529- 533	6, 7	11.0-11.5	Appendix C: 1
5	June 2	<u>Lesson 12:</u> - QUIZ #1 - Breast physiology - Breast Sonography	<i>Abdomen & Superficial Structures</i> Ch.18 p. 533– 541	4, 7	12.0-12.10	Appendix C: 1
	LAB: June 4, 6	<u>Lesson 13:</u> - Breast simulated scanning - Palpating areas of interest		1, 2, 3, 4	13.0-13.7	Area 3: 3.3c Appendix C: 1
	Asynchronous	<u>Lesson 14:</u> - Correlating with mammography		6	14.0-14.4	Appendix C: 1
6	June 9	<u>Lesson 15:</u> -BIRADS & Pathology of the breast	<i>Abdomen & Superficial Structures</i> Ch.18 p. 541- 591	4, 6, 7	15.0-15.22	Appendix C: 1

WEEK	DATE	LESSON	READINGS	LEARNING OUTCOMES	LEARNING OBJECTIVES	SONOGRAPHY CANADA COMPETENCY
	LAB: June 11, 13	<u>Lesson 16:</u> - Breast simulated scanning cont'd - Palpating areas of interest cont'd		1, 2, 3, 4	16.0-16.7	Area 3: 3.3c Appendix C: 1
	Asynchronous	<u>Lesson 17:</u> - Biopsies & technologic advancements in breast imaging		6, 7	17.0-17.2	Appendix C: 1
7	June 16	<u>Lesson 18:</u> - Breast pathology cont'd/Male breast - Breast augmentation		4, 6, 7	18.0-18.20	Appendix C: 1
	LAB: June 18, 20	Midterm Review Session Assignment #1 Due				
	Asynchronous	Lesson 19: - Lymph nodes of the groin & axilla (normal & abnormal) - Anatomy of the superficial tissues/abdominal wall/chest	<i>Abdomen and Superficial Structures</i> Ch. 4 p. 39-54	7	19.0-19.16	Appendix C: 3, 5, 6 Appendix B: 2, 5
8	June 23	TEST #1				

WEEK	DATE	LESSON	READINGS	LEARNING OUTCOMES	LEARNING OBJECTIVES	SONOGRAPHY CANADA COMPETENCY
	LAB: June 25, 27	<u>Lesson 20:</u> - Scanning the inguinal region, abdominal wall, popliteal fossa, chest and thorax - Hernia detection techniques - Evaluation of the lymph nodes in the groin, axilla - Palpating areas of interest		1, 2, 3, 4, 7	20.0-20.11	Area 3: 3.3c Appendix B: 2, 5 Appendix C: 2, 5, 6
	Asynchronous	<u>Lesson 21:</u> - Pathology of the superficial tissues/abdominal wall/chest - Foreign bodies	<i>Abdomen & Superficial Structures</i> Ch.4 p. 54 -69 Ch. 27 p. 851-864	6, 7	21.0-21.25	Appendix B: 2, 5 Appendix C: 2
9	June 30	<u>Lesson 22:</u> - Introduction to pediatric ultrasound - Scanning the pediatric patient - Anatomy of the neonatal brain - Sonography of the neonatal brain	<i>Abdomen & Superficial Structures</i> Ch.21 p. 721 - 735	6, 7	22.0-22.36	
	LAB: July 2, 4	<u>Lesson 23:</u> - Variants & pathology of the neonatal brain			23.0-23.16	

WEEK	DATE	LESSON	READINGS	LEARNING OUTCOMES	LEARNING OBJECTIVES	SONOGRAPHY CANADA COMPETENCY
	Asynchronous	Variants & pathology of the neonatal brain cont'd	<i>Abdomen & Superficial Structures</i> Ch.21 p. 735- 759			
10	July 7	<u>Lesson 24:</u> - QUIZ #2 - Anatomy & Sonography of the neonatal spine	<i>Abdomen & Superficial Structures</i> Ch.22 p. 761 - 764	6, 7	24.0-24.8	
	LAB: July 9, 11	<u>Lesson 25:</u> - Pediatric GI tract	<i>Abdomen & Superficial Structures</i> Ch.20 p. 675–684		25.0-24.19	Appendix B: 20, 21, 22, 23
	Asynchronous	<u>Lesson 26:</u> - Pathology and variants of the neonatal spine	<i>Abdomen & Superficial Structures</i> Ch.22 p. 764-775		26.0-26.9	
11	July 14	<u>Lesson 27:</u> - Pediatric urinary system, adrenal glands and retroperitoneum	<i>Abdomen & Superficial Structures</i> Ch.20 p. 685- 720	6, 7	27.0-27.26	Appendix B: 3, 11, 24, 27, 28
	LAB: July 16, 18	<u>Lesson 28:</u> - Pediatric urinary system, adrenal glands and retroperitoneum cont'd			28.0-28.8	

WEEK	DATE	LESSON	READINGS	LEARNING OUTCOMES	LEARNING OBJECTIVES	SONOGRAPHY CANADA COMPETENCY
	Asynchronous	<u>Lesson 29:</u> - Pediatric urinary system, adrenal glands and retroperitoneum cont'd			29.0-29.3	
12	July 21	<u>Lesson 30:</u> - Pediatric upper abdomen	<i>Abdomen & Superficial Structures</i> Ch.20 p. 643 -675	6, 7	30.0-30.25	Appendix B: 1,2, 8, 9,10, 11,12, 14
	LAB: July 23, 25	<u>Lesson 31:</u> -Pediatric upper abdo cont'd			31.0-31.11	
	Asynchronous	<u>Lesson 32:</u> - Pediatric upper abdomen cont'd			32.0-32.7	
13	July 28	<u>Lesson 33:</u> - Pediatric Hips	<i>Abdomen & Superficial Structures</i> Ch.23 p. 777 - 785	6, 7	33.0-33.5	
	LAB: July 30, August 1	Assignment #2 Due				
	Asynchronous	TBD				
14	August 4	No lecture due to holiday (BC Day)				
	LAB: Aug 6, 8	Review session				
	Asynchronous	TBD				
15	<i>Exam date TBD</i>	TEST #2*				

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

Assessment and evaluation

Type	Description	Weight
Assignment	Assignments	10
Practical Assessment	Skills Assessments	15
Quizzes and tests	Quizzes	15
Quizzes and tests	Test 1	30
Quizzes and tests	Test 2	30

Course guidelines and expectations

Refer to the Diagnostic Medical Sonography (SONO) Program Handbook for classroom and lab etiquette as well as professional behaviour expectations.

Skills assessments:

Students must pass all Critical Criteria in the Professional Performance section, and achieve at least 65% on the Interrogation and Image Quality section and sub-sections of each Skills Assessment. Final skills assessments are not eligible for a repeat assessment.

Late Policy:

All assignments are to be completed and submitted by the due date unless an extension has been agreed upon by the instructor. Assignments that are not submitted by the due date will receive a grade of zero (0) and the assignment will not be marked. *Note: this also includes the submission of any documents requiring submission relating to skills assessments.*

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.

Asynchronous materials should be completed prior to following in-person lecture.

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.

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

Additional information

Expanded learning outcomes:

6. Explain the significance of screening studies and complementary imaging on the approach to pediatric and superficial structure sonography.
7. Interpret the sonographic appearance of normal, anomalous and pathologic conditions of the superficial and pediatric structures.

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.