Springfield Technical Community College
School of Health & Patient Simulation

DMS-231 Advanced Sonographic Procedure

Summer 2026

Professor:	Eun Soo Lee, MEd, RDMS, RVT
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Semester Credits:	2
Meeting days and times:	Tuesdays 8 am – 12 pm
Office Hours:	Tuesdays 12 pm – 1 pm

Required Textbook

Diagnostic Medical Sonography: Obstetrics & Gynecology (Diagnostic Medical Sonography Series) by Susan Stephenson and Julia Dmitrieva (2023)
ISBN: 9781975217280
Diagnostic Medical Sonography: Abdomen and Superficial Structures (Diagnostic Medical Sonography Series) by Tonya Nolan and Diane Kawamura (2023)
ISBN: 9781975217174

Reference Textbook

Examination review for Ultrasound by Steven M. Penny (2022)
ISBN: 9781975185503

Reference Websites

www.ARDMS.org
www.SDMS.org
www.AIUM.org

Course Description

A continuation of DMS-221 and DMS-223. Study of advanced sonographic topics in abdominal, abdominal extended, Ob/Gyn, breast, prostate, and vascular specialties. Program review in physics and instrumentation, abdominal, and OB/Gyn. Emphasis will be placed on developing a strategy of Abdomen and OB/GYN specialty examinations based on recognition of normal and pathologic states, data from other imaging modalities, laboratory findings, patient history and other information as appropriate.

Prerequisites: DMS-221, DMS-222, DMS-223, and DMS-224
Co-requisites: DMS-232 – Clinical Practicum 4

Course Organization/Teaching Procedures:

A variety of instructional methods will be used, including discussion, lecture, demonstration, and application assignments.

Student Learning Outcomes

The successful student will be able to integrate the knowledge gained throughout their entire time in the program. At the end of this course, the successful student will be able to regarding the following topics:

1. Identify anatomy, relational anatomy, anatomic variants, and sonographic appearance of normal anatomical structures:
2. Demonstrate knowledge of the physiology, pathophysiology, sonographic technique, measurements, sonographic appearances, and doppler patterns, where applicable, in both normal and abnormal structures.
3. Evaluate scanning protocol and modifications based on the sonographic findings and the differential diagnoses.

- Infertility and ART (continued from DMS-221)
- Breast
- Prostate
- Misc. topics
- 3D/4D Sonography
- Pediatric Sonography- Infant hip
- Pediatric Sonography- Neonatal/Infant Head
- Pediatric Sonography- Neonatal/Infant Spine
- Contrast Ultrasound
- Elastography
- Abdominal sonography-Extended and OB/GYN Sonography review

Course Expectations

Each student is expected to participate in, and contribute to, all activities related to the course. A variety of teaching methods will be used that may include, but not be limited to, the following: Class discussion, lectures, demonstrations, laboratory exercises, and homework assignments.

Attendance Policy

Because of the importance of this course and the volume of material covered, students are expected to follow the course schedule and attend every class and be on time. The student is required to contact the Professor in the event of an unavoidable absence at least one hour prior to the scheduled class start time.

Tardy

- Arrival 10 minutes or more after the designated start time for a lecture or laboratory Student will be allowed into the classroom.
- 3 events of tardiness will be counted as an absence.

Leaving Class Early

- Leaving greater than 10 minutes before the designated end of class time for a lecture or laboratory.
- 3 events of leaving class early will be counted as an absence.

Absence

- Not arriving at all for a lecture or laboratory

More than ***3 absences*** from lecture and/ or lab for a full semester course will result in punitive action ranging from, but not limited to, reduction of course grade to withdrawal from the course. In the case of extenuating circumstances, please contact the instructor directly. Each situation will be evaluated on an individual basis.

Make up missed work/examinations

- It is the students' responsibility to make up all missed work and must be done so at a time convenient to both student and instructor.
- It is the students' responsibility to make up missed examinations and must be done so at a time convenient to both student and instructor. Missed examinations must be made up within 1 week.

Grading Policy

A grade will be assigned from the total number of correct answers on all evaluations performed. The course grade will equal to section evaluations (60%) and two ***program-comprehensive*** final exams (40%). If the student is unable to obtain a final course grade of 73%, the student will be judged not to have satisfactorily completed the Program and will not graduate. Please see the Program Policy and Procedures Manual for specifics. Final exam may be replaced with ARDMS Abdomen exam or/and ARDMS Obstetrics & Gynecology exam. The passing scores (555-700) will be rescaled to the STCC grading scale. For example, 555 will be 73 points and 700 will be 100 points.

Assignment	***Points***
Exam 1	*15*
Exam 2	*15*
Exam 3	*15*
Exam 4	*15*
Final exam AB	*20*
Final exam Ob/Gyn	*20*
Total	*100*

Grading Scale

The STCC grade scale can be found in the STCC catalog grading system.

93.00 to 100.0 = A	83.00 to 86.99 = B	73.00 to 76.99 = C
90.00 to 92.99 = A-	80.00 to 82.99 = B-	70.00 to 72.99 = C-
87.00 to 89.99 = B+	77.00 to 79.99 = C+	67.00 to 69.99 = D+

63.00 to 66.99 = D | 60.00 to 62.99 = D- | Less than 60.00 = F

College / Department Policies

Springfield Technical Community College is an institution that is committed to offering students the best possible education. The education environment is compromised when individuals infringe on the rights of others to succeed in learning. Therefore, the following policies and procedures are intended to serve as guidelines for acceptable behavior at STCC. Conduct which could subject a student to disciplinary action includes, but is not limited to:

Acts of dishonesty, disruption or obstruction of teaching or research, physical abuse, verbal abuse, threats, intimidation, harassment, coercion, other conduct which threatens or endangers the health and safety of any member of the campus, attempted or actual theft of and/or damage to property of the college of property of a member of the college, hazing, failure to comply with directions of college officials or law enforcement officials, unauthorized possession, duplication or use of keys to any College premises or unauthorized entrance, violations of published College policies, rules or regulations, violation of federal, state, or local laws on College premises, use, possession or distribution of narcotics or other controlled substances, use, possession or distribution of alcoholic beverages, illegal or unauthorized possession of firearms, explosives, other weapons or dangerous chemicals, conduct which is disorderly, lewd, or indecent. For a more complete listing, refer to your college catalog.

Veterans

Veterans and active duty military personnel with special circumstances and/or concerns are welcome and encouraged to communicate these, in advance if possible, to the instructor.

Office of Disability Services

In compliance with Springfield Technical Community College's policy and equal access laws, disability-related accommodations are available. Students who desire such accommodations should provide documentation of a disability to register with the Office of Disability Services (ODS). Proper registration will enable ODS counselors to verify the disability and determine reasonable academic accommodations. Students who desire such services are to meet with the professor in a timely manner, preferably the first week of class, to discuss their disability-related needs. Students will not receive services until they register with the Office of disability Services (ODS). Proper registration will enable the ODS to verify the disability and determine reasonable academic accommodations. ODS is located in Building 19 on the 1st floor (Room 141).

Documentation can be sent:
Email: disability_services@stcc.edu.
Fax: (413) 755-6323
Mail: STCC, Attn: Disability Services, One Armory Square, Springfield, MA 01105
Please see additional information on registering with the Office of Disability Services or contact ODS at 413-755-4785 or via email at disability_services@stcc.edu.

Class cancellation

Notification of class cancellation (other than weather or campus emergencies) will be posted via blackboard announcement.

Office hours

Office hours are 12 p.m. – 1 p.m. on Monday and Tuesday. Appointments are recommended.

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Course Outline

WEEK	TOPIC	ASSIGNMENT
1	OB/GYN (continued from DMS-221)	
6/2	Infertility/ART	OB/GYN Chapter 37
	Misc. small parts topics:	
	Pregnant cervix	
	Pediatric pelvis	OB/GYN Chapter 7, 38
		OB/GYN Chapter 11
	Test 1 (Infertility and Fetal Doppler)	
2	Breast	AB Chapter 18
6/9	Prostate	AB Chapter 14
	Test 2 (Breast and Prostate)	
3	Misc. small parts topics	
	Placental mass	OB/GYN Chapter 22
6/16	Parotid and submandibular salivary glands	AB Chapter 15
	Superficial infection	OB/GYN Chapter 33
	Meckel Gruber Syndrome	
	Meckel's diverticulum	
	Adrenals	AB Chapter 15
	Foreign body	AB Chapter 27
4	3D/4D Sonography	OB/GYN Chapter 38
	Interventional Procedures	AB Chapter 26
6/23		OB/GYN Chapter 36
	Test 3 (Misc. topics, Interventional Procedures, 3D/4D sonography)	
5	Pediatric Sonography:	
6/30	Neonatal Head ultrasound	AB Chapter 21
	Pediatric Sonography:	
6	Infant Hip ultrasound	AB Chapter 23
7/7	Spine ultrasound	AB Chapter 22
	Contrast ultrasound	

7 7/14	Elastography
8 7/21	Test 4 (Pediatric Sonography, contrast ultrasound, and Elastography) Review
9 8/7	Final exam

NOTE: The schedule and syllabus may change as the needs of the class dictate