



DMS-534: CLINICAL EXPERIENCE III (FORMERLY DMS-136)

Effective Term

Fall 2025

BOT Approval Date

01/16/2025

Discipline

DMS - Diagnostic Medical Sonography

Course Number

534

Course Title

Clinical Experience III (formerly DMS-136)

Short Title

Clinical Experience III

Credit Status (CB 04)

D - Credit - Degree applicable

Units

Lab Units

10.00

Total Units

10.00

Hours

Lab Contact Hours

480-540

Out of Class Hours Lab

0.00

Total Contact Hours

480 - 540

Total Out of Class Hours

0 - 0

Total Student Learning Hours

480 - 540

Is this an existing Extensive Lab?

No

Do you want to propose this for Extensive Lab?

No

Distance Education

No

Catalog Description

This course is offered as a continuation of advanced on the job training in a sonography department of an affiliated hospital or medical center. The student will demonstrate the ability to perform sonographic examinations of the abdomen, superficial structures, pelvic, and obstetric exams according to protocol guidelines established by the program and the clinical affiliate hospital or medical



center. This clinical course will also include reviewing physician orders, comparing prior imaging exams, lab results, and exam protocols. Students begin to complete a majority of ultrasound exams as unassisted, with preceptor review of the final exam images. The final objective is to develop skills equal to an entry-level Sonographer. The student will demonstrate proper sterile technique, universal precautions, and patient centered care. (formerly DMS-136)

Requisites

Prerequisite(s)

Prerequisite(s) (must be taken before)

DMS-524 (with a grade of C or better).

Codes

TOP Code (CB 03)

1227.00* - *Diagnostic Medical Sonography

CIP Code

51.0910 - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician.

Repeatability Code

No

Grading Option

Letter grade OR P/NP

Learning Objectives

Learning Objectives

Learning Objective

1. Analyze the patient exam orders and independently perform complete abdomen ultrasound exams according to recognized protocol guidelines.
2. Scrutinize and image all fetal anatomy according to industry standard protocols and evaluate for fetal congenital anomalies and abnormal maternal pathology
3. Differentiate and demonstrate the physiology and development of the placenta, including the placental location within the uterus and its relationship to the maternal cervix and recognize the placental grade.
4. Document all abnormal masses associated with pregnancy including but not limited to ectopic pregnancy, uterine tumors, and ovarian cysts.
5. Document all fetal measurements using industry standard protocols for the gestational sac size, crown rump length, bi-parietal diameter, head circumference, abdomen circumference and femur length of the fetus to determine gestational age. Document the amniotic fluid volume.
6. Compare and contrast patient symptoms with the sonographic exam that has been ordered and correlate lab values with appropriate differential diagnosis.
7. Critically analyze and apply principles of diversity, equity, and inclusion (DEI) within ultrasound practice and demonstrate the ability to recognize and address biases in patient care, effectively communicate with diverse populations, and implement inclusive practices that promote equitable access to ultrasound services.

Learning Outcome Information

Course Learning Outcomes

Learning Outcome

1. The student will demonstrate proper protocols for examinations of the abdomen, gynecology, superficial structures; first, second, and third semester of obstetrics.
2. The student will demonstrate the ability to complete unassisted ultrasound examinations of the abdomen, gynecology, superficial structures, and obstetrics.

3. The student will critique an ultrasound examination and discuss the image quality and diagnostic findings using proper sonographic terminology.

4. The student will develop an understanding of cultural, racial, and ethnic diversity in a patient centered care setting.

Program Learning Outcomes

Learning Outcome

1. Apply knowledge of proper use of ultrasound equipment and demonstrate image improvement through manipulating the instrumentation of the equipment.

2. Complete the American Registry of Diagnostic Medical Sonographers Physics and Instrumentation exam and one or more specialty exams of Abdomen and Obstetrics/Gynecology.

3. Demonstrate professional and ethical behavior in the workplace.

4. Document proper imaging of the abdomen, small parts, obstetrics and gynecology ultrasound exams. Show discretion with and implement HIPPA laws for all patients.

5. Show discretion with and implement HIPPA laws for all patients.

6. Use effective communication with patients, staff, and physicians.

Institutional Learning Outcomes

Aesthetic Awareness: The student will identify and evaluate how aesthetic expression leads to an appreciation of social and cultural context as well as the values of art and nature.

Communication: The student will effectively express and exchange ideas through listening, speaking, reading, writing, visual works, and other modes of interpersonal expression.

Critical Thinking: The student will analyze problems, gather and synthesize relevant information, evaluate ideas, information, and evaluate alternative points of view to create, innovate and implement effective solutions.

Cultural Awareness and Humility: The student will demonstrate knowledge of and sensitivity toward individuals of diverse ethnicity, age, gender, sexual orientation, and religious affiliations, as well as toward those individuals with diverse abilities and socio-economic classes to respectfully interact with individuals of diverse perspectives, beliefs and values while being mindful of the limitation of their own cultural frameworks.

Information and Technology Literacy: The student will access, interpret, evaluate, and apply relevant information sources and digital media effectively, and in an ethical and legal manner.

Scientific Awareness: The student will apply the scientific method of inquiry to assess potential solutions for real-life challenges by employing science-based knowledge and methodologies in daily life.

Social Awareness: The student will recognize and analyze the interconnectedness of global, national, and local concerns, analyzing cultural, political, social, and environmental issues from multiple perspectives and appreciate similarities and differences among cultures.

Civic

Personal

and Professional Responsibility

Content

Course Lab Content

I. Hospital and Department Orientation

- A. Hospital policy and procedures
- B. Department policy and procedures
- C. Paperwork procedures for patients
- D. Patient communication
 1. Verbal
 2. Non-verbal
 - a. eye contact
 - b. facial expressions
 - c. posture
 3. Cultural differences
 4. Communication barriers
 - a. Language barriers
 - b. Mobility barriers
 - c. Disability barriers
- E. Patient centered care
 1. Collaboration
 - a. Patients, families, providers
 1. Customized care plan
 2. Respect
 - a. Cultural traditions
 - b. Socioeconomic conditions
 3. Information sharing

- a. Timely information
 - i. Informed decisions
 - 4. Tailored care
 - a. Patient needs
 - 5. Support
 - a. Patient understanding of their health
 - b. Patient autonomy
- II. Machine Manipulation
 - A. Annotation
 - B. TGC
 - C. Focus
 - D. Depth
 - E. Gain
 - F. Transducer Orientation
 - G. Scanning planes
- III. Scanning Techniques
 - A. Sonographic appearance
 - B. Monitor orientation
 - C. Scanning windows
 - D. Transducer Manipulation
- IV. Scanning protocols
 - A. Liver
 - B. Gallbladder
 - C. Kidneys
 - D. Pancreas
 - E. Spleen
 - F. Aorta/IVC
 - G. Small parts imaging
 - 1. Thyroid
 - 2. Breast
 - 3. Testicular
 - H. Non-cardiac Chest
- V. Scanning protocols OB and Gynecology
 - A. Uterus
 - B. Right and left adnexa
 - C. Right and left ovaries
 - D. Endovaginal scanning
 - 1. Uterus
 - 2. Ovaries
 - 3. Adnexa
 - E. Fetal and placenta position
 - F. Obstetric 1st trimester
 - G. Obstetric 2nd trimester
 - H. Obstetric 3rd trimester
- VI. Exam proficiency
 - A. Scanning proficiency
 - B. Progression to independent/unassisted scanning

Methods of Instruction

Method

Critique

Integration

All student ultrasound exams will be critiqued by a radiologist or scanning instructor for image quality, proper established protocols and diagnostic accuracy.

Method

Demonstration

Integration

Students will demonstrate and improve scanning techniques while under the supervision of a clinical preceptor and clinical supervisor on patients in an affiliated hospital setting.

Method

Observation and Demonstration

Integration

Students will build on didactic foundational knowledge of proper exam protocols and prior clinical experience. The instructor or preceptor will demonstrate these protocols in clinical practice: evaluation of physician's orders, documentation of patient history, completing appropriate paperwork to document the examination findings, proper use of machine knobology during each ultrasound exam using: TGC, depth, gain, focus, measurement cursors, color doppler, power doppler, pulse-wave doppler, dynamic range, dual screen, annotation, patient demographics, review images, delete images, and zoom images.

Method

Observation and Demonstration

Integration

In the hospital imaging exam room, the instructor or preceptor will demonstrate proper probe cover use for sterile procedures and transvaginal exams. Proper use will include standard and aseptic technique of placement on the transducer, removal from the transducer, and disinfection procedure using the Trophon sterilizer or Cidex soak solution.

Method

Papers and Reports

Integration

Instructions will be given in class and written in the CMS on how to keep paper clinical time logs and exam logs. Instructions for Trajecsyst will be demonstrated in class and written instructions posted within the CMS on how to clock in and out using the cloud-based Trajecsyst

Method

Discussion

Integration

Instructors and preceptors are typically faced with a diverse patient population on any given day in a hospital environment. Students will have had three semesters of full-time clinical to base their experience on. The article "Seven Steps to Become a More Culturally Sensitive Nurse" will be re-posted in the CMS. Students will revisit and read the article and post a written response to discuss patient demographics for their hospital or imaging center. They will be instructed to describe and give examples of how their understanding has evolved, remained the same, and/or increased through clinical experiences.

Methods of Evaluation**Method**

Class Performance

Integration

The student is evaluated on complete documentation of physician's orders, patient history, and completing appropriate technologist worksheets for examination findings. The student will be graded at the end of the semester on competency #2: Student demonstrates accuracy with room preparation and paperwork and #6: Student properly prepares exam paperwork.

Method

Final Performance

Integration

In the hospital imaging exam room, the student is evaluated by a preceptor as they perform an interventional procedure or endovaginal exam. The student will be evaluated on proper probe cover use for sterile procedures and transvaginal exams. Proper use will include standard and aseptic technique of placement on the transducer, removal from the transducer, and disinfection procedure using the Trophon sterilizer or Cidex soak solution. A competency will be signed off as pass or fail. If a student fails the competency

they will be put on probationary period using a SPS- Student Plan for Success. If the student fails the competency for proper probe cover use, the student may be dismissed from the program for patient safety concern.

Method

Other

Integration

Throughout the semester clinical course, after completing each ultrasound exam that the student scanned with assistance, the instructor or preceptor will evaluate the ultrasound case with the student. Students are expected to identify abdomen, superficial anatomy structures, pelvis, and OB and be able to then verbalize scanning protocols for the abdomen and small parts examination using proper sonographic terminology.

Grading is given from 1 to 5 on the students proficiency of each area scanned.

Method

Final Performance

Integration

A final, summative evaluation will be completed at the end of the semester by the clinical preceptor to ascertain student's progress in scanning abdomen, superficial structures, pelvis, and obstetric examinations. In the hospital imaging exam room, while scanning a hospital patient, the instructor or preceptor will observe the student as they demonstrate proper use of machine knobology as a cumulative, end of the semester evaluation, during ultrasound exams using: TGC, depth, gain, focus, measurement cursors, color doppler, power doppler, pulse-wave doppler, dynamic range, dual screen, annotation, patient demographics, review images, delete images, and zoom images.

Is student able to identify abdominal, non-cardiac chest, female pelvis, thyroid, testicular, and breast anatomy on the monitor as the sonographer is scanning or as assisted by the sonographer preceptor?

Does the student demonstrate basic scanning skills in 1st trimester obstetrics?

Does the student demonstrate basic scanning skills in 2nd & 3rd trimester obstetrics, including: fetal anatomy, fetal biometric measuring, maternal anatomy.

Grading is given from 1 to 5 on the students proficiency of each area scanned.

Method

Final Performance

Integration

Note to Preceptor: When you evaluate your student, please keep in mind that they have completed 872 hours of clinical experience. They will have completed lab practical's for OB, GYN, Carotid, Arterial with ABIs, and Venous exams at the end of this semester.

Students should be evaluated at an intermediate-advanced level. They should be doing many exams assisted or independently. Please feel comfortable to grade them according to their progress and not as a final determination of their abilities. Be frank about areas that can be improved and please include the areas your student excels!

Method

Self-Evaluation

Integration

Online: Students will post a response to the prompt from a view of patient centered care. Students should identify from their clinical experience and give examples of the patient needs of specific cultural, racial, and ethnic diversity in a patient centered care setting (Language; Cultural Traditions; Health Literacy; Cultural Assumption). How has your understanding of cultural sensitivity evolved, remained the same, and/or increased from clinical experience?



In clinical: Instructors and preceptors will observe how students interact with all patients. Students will be evaluated by how they communicate effectively with both hospital personnel and patients who have a different cultural, racial, or ethnic diversity than they do. A patient centered care setting is always the goal in healthcare. Patient communication competency will be signed off on the end of the semester evaluation.

Assignments

Assignment Type

Reading

In-class and/or outside of class

In-class

Formative or Summative

Formative

Assignment

During initial assessment of your patient: read and evaluate the physician's orders, document patient history, and complete a technologist worksheet for documentation of the examination findings. Include organ measurements, proper labeling, and descriptive terms for a normal exam or if there is pathology present.

Assignment Type

Other

In-class and/or outside of class

In-class

Formative or Summative

Summative

Assignment

In the hospital imaging exam room, demonstrate use of the ultrasound machine to the instructor preceptor on knobology using: TGC, depth, gain, focus, measurement cursors, color doppler, power doppler, pulse-wave doppler, dynamic range, dual screen, annotation, patient demographics, review images, delete images, and zoom images.

Assignment Type

Other

In-class and/or outside of class

In-class

Formative or Summative

Formative

Assignment

In the hospital imaging exam room, demonstrate proper probe cover use for sterile procedures and transvaginal exams. Proper use will include standard and aseptic technique of placement on the transducer, removal from the transducer, and disinfection procedure using the Trophon sterilizer or Cidex soak solution.

Assignment Type

Other



In-class and/or outside of class

In-class

Formative or Summative

Formative

Assignment

While observing the preceptor perform an ultrasound exam: identify abdominal organs and vessels, Pelvic organs and vessels, OB anatomy of both maternal and fetus, and/or superficial anatomy structures. Discuss these patient cases with your clinical faculty using proper sonographic terminology.

Assignment Type

Writing

In-class and/or outside of class

Outside of class

Formative or Summative

Formative

Assignment

Maintain a paper copy and a cloud-based Trajecsyst examination log which keeps track of all exams observed, performed with assistance, or performed without assistance. Each type of examination will be tracked on separate forms. This will enable the clinical coordinator to review student experience and areas that need more work.

Assignment Type

Writing

In-class and/or outside of class

Outside of class

Formative or Summative

Formative

Assignment

Document your daily time logs on a paper log sheet and also digitally in the cloud based Trajecsyst tracking program. This documentation will fulfill the time requirement necessary to take the American Registry of Diagnostic Medical Sonographers registry credentialing exams.

Assignment Type

Writing

In-class and/or outside of class

Outside of class

Formative or Summative

Summative

Assignment

Continued Development in understanding cultural, racial, and ethnic diversity in a patient centered care setting. Follow up on your knowledge and clinical experience over the last two semesters. Using the CMS Discussion, recall the article from DMS-504, "Seven Steps to Become a More Culturally Sensitive Nurse". How has your understanding evolved, remained the same, and/or increased through clinical experiences?



Assignment Type

Reading

In-class and/or outside of class

Outside of class

Formative or Summative

Formative

Assignment

Read the following article: 4 Steps to Improving the Ultrasound Patient Experience
by Jennifer Ott on Oct 18, 2019

<https://www.cassling.com/blog/4-steps-to-improving-the-ultrasound-patient-experience>

Discuss the article on the assigned discussion page in the LMS. Post your thoughts on the definition of patient centered care and how you implement this concept in your sonography practice.

Course Materials

Textbooks

Francis, T. BA RDMS, RVT; Schieck-Cortez, K. MS, RDMS, RVT (2024). Diagnostic Medical Sonography Program- Clinical Manual III. Mt. San Jacinto College. ISBN: N/A. updated 2024

Other Resources

Minimum Qualification

Class Size Information

Class Size

30

Class Size Category

F - Individualized, skills#based instruction/field practice 30

Diversity and Inclusion

Explain how diversity and inclusion(e.g., gender, culture/race, sexuality, etc.) is infused into the course.

Students put prior patient care and didactic knowledge into practice in this clinical course. The inherent active learning in a clinical internship enables students to gain experience caring for diverse patient populations where gender, culture, race, and disabilities have an impact on patient care. Course objectives and learning outcomes are supported through observation and practice within the hospital environment. Prior foundational knowledge of patient care scenarios and case studies are also put into practice that seeks to foster knowledge, empathy, and patient advocacy in developing future healthcare professionals. Sonography students and graduates will encounter scanning patients from diverse populations, disabilities, and patients who may appear one gender, but have unaltered reproductive organs or have had surgical alterations.

Describe how assignments, instruction, evaluation, course content, and interactions are contextualized for diverse learners promoting an equitable course.

The course resources are offered in multiple forms to offer diverse learning methods to students. Audio learners can utilize voice-over lectures; Visual learners can utilize power-point diagrams, textbook, lab demonstrations, and videos; Hands-on learners can utilize lab simulation and practice concepts or protocols in the campus lab.

Interactions

Explain how the course will incorporate student-to-student interaction.

Some students may have other students at their clinical site, this is an opportunity to watch each other scan and offer support and encouragement. Typically, a DMS student is the only DMS student within the Imaging department during this clinical course, so interaction with classmates at the clinical site is rare. Opportunities for student to student interaction are encouraged through personal text messaging and provided within the CMS Discussion resource where students can share experiences, thoughts, and mentor each other.

Explain how the course will incorporate instructor-to-student interaction.

This course provides opportunities for students to observe preceptors or clinical instructor demonstrations of patient care and scanning protocols, then practice what was observed. Instructors/Preceptors interact through observation and scanning opportunities for students where students may ask questions at the end of the exam, during the worksheet write up and review with the radiologist. The CMS houses announcements, syllabi, voice-over lectures, and course schedule through modules. Instructors and Preceptors use real-life experience stories during clinical experiences to enhance student learning. The instructor encourages use of office hours or meeting after class if student needs assistance or guidance.

Explain how the course will incorporate student-to-content interaction.

This course has a clinical manual that students can print or view digitally. This manual contains clinical objectives and a list of competencies so that students know what is expected and how they will be evaluated and graded. Students are encouraged to review didactic learning that is taken concurrently with this course and to explore excellent video content online.

Explain how the course will incorporate student-to-self interaction (metacognitive).

This course provides opportunities for students to think about how they will make a plan that provides the best patient care and diagnostic interpretation from beginning to end of their interaction with each patient they care for. Students are encouraged to reflect on real-life clinical experiences in this process and share in the online discussion forum or classroom discussion.

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