

**JACKSON COMMUNITY COLLEGE
DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAMS
DMS-197 Introduction to Clinical
COURSE SYLLABUS SP2018**

Meeting Times:

DMS 197 50	Intro to Clinical Experience	08:00AM	11:52AM	MW
DMS 197 51	Intro to Clinical Experience	08:00AM	11:52AM	MW
DMS 197 52	Intro to Clinical Experience	12:00PM	03:52PM	MW
DMS 197 53	Intro to Clinical Experience	12:00PM	03:52PM	MW

Instructors:

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The best way to contact your instructors is by email.

Course Description:

This course will allow students to gain basic knowledge and practical skills that are necessary to begin a clinical externship in sonography. Students will study and practice: 1) communication skills as it is applied to the student-to- patient/sonographer/physician/ relationship, 2) patient assessment, and 3) scanning techniques that will be a part of their daily routine in their clinical practice.

Required Textbooks:

Curry, R.A., Tempkin, B.B., Ultrasonography; an Introduction to Normal Structure and Functional Anatomy Fourth Edition, W.B Saunders Co. 2016, Philadelphia, PA.

eBook ISBN ISBN-13: 978-0323323628

This text is available in a digital format. https://www.amazon.com/Workbook-Lab-Manual-Sonography-Introduction-ebook/dp/B01913UV8A/ref=mt_kindle?_encoding=UTF8&me=

Prerequisites required:

Acceptance into the Sonography Program

Course Objectives:

At the completion of this course the student will show by oral or via demonstration that he/she understands and is competent to perform or demonstrate the following:

1. General pertinent patient care. .
2. Asepsis, Universal Precautions, OSHA standards.
3. Patient interviewing techniques.
4. An introduction to Sonographic exam protocols.
5. The history of ultrasound and its medical uses.
6. Sonographic terminology.
7. Sonographic scanning planes.
8. Sonographic patient positioning.
9. Scanning motion and transducer manipulation.

10. Professional interactions, verbal, non-verbal, & in writing.
11. Demonstrate knowledge of sonographic anatomy
12. Perform and demonstrate basic scanning techniques
13. Explain and demonstrate proper ergonomics during the course of the exam

Associate Degree Outcomes

The goals of this course include the successful achievement of measurable outcomes defined by Jackson Community College as vital to the educated individual at the Associates Degree level. The ADO assessed in this course is: ADO 7- Critical thinking at the developing level

Attendance Policy

Your success in this course relies heavily on your attendance. It is not possible to advance and excel in the scanning skills needed prior to beginning your clinical experience if you are not here on a consistent basis.

One absence will not result in any penalty to your grade. Subsequent absences will result in a deduction of 20 points each. Three or more absences will result in a failing grade for this course.

Tardiness is a disruption to the instructor as well as to your classmates. If the weather looks like it may delay you in getting to class, give yourself a little more time for your trip. Please be mindful of this and make every attempt show up on time.

Weekly Lessons and Assignments:

<u>Date</u>	<u>Topic</u>	<u>Assignment</u>
Lesson 1	Introductions What IS expected and what TO expect Lab policies and Orientation Q & A Machine overview and cleaning Draping, gel application, Universal Precautions Start scanning-very basic Intro to Abdominal Vasculature	
Lesson 2	MSI: Ergonomics and exercises Scanning planes Abdominal Vasculature	
Lesson 3	Intro to Liver and Spleen Anatomy Scanning Windows. Tips and Technique AIUM Protocol	
Lesson 4	Abdominal Scanning Liver and Spleen Anatomy Explanation of Procedure Scanning Windows. Tips and Technique	

	AIUM Protocol	
Lesson 5	Abdominal Scanning Intro to Gallbladder and Biliary Anatomy Explanation of Procedure Scanning Windows. Tips and Technique AIUM Protocol	Affective Domain Evaluation #1
Lesson 6	Abdominal Scanning Gallbladder and Biliary Anatomy Explanation of Procedure Scanning Windows. Tips and Technique AIUM Protocol	
Lesson 7	Abdominal Scanning Patient History Explanation of Procedure Intro to Renal Anatomy Scanning Windows. Tips and Technique AIUM Protocol	Scan Test #1 Liver and Spleen
Lesson 8	Abdominal Scanning Patient History Renal Anatomy Explanation of Procedure Scanning Windows. Tips and Technique AIUM Protocol	
Lesson 9	Abdominal Scanning Complete Abdominal Scan Explanation of Procedure Scanning Windows. Tips and Technique AIUM Protocol	
Lesson 10	Abdominal Scanning Complete Abdominal Scan Explanation of Procedure Scanning Windows. Tips and Technique AIUM Protocol	Affective Domain Evaluation #2 Scan Test #2 Kidney
Lesson 11	Pelvic Scanning Intro to Pelvic Anatomy Explanation of Procedure Scanning Windows. Tips and Technique AIUM Protocol	
Lesson 12	Pelvic Scanning Pelvic Anatomy Explanation of Procedure Scanning Windows. Tips and Technique AIUM Protocol	
Lesson 13	Pelvic Scanning Pelvic Anatomy Explanation of Procedure	

	Scanning Windows. Tips and Technique AIUM Protocol	
Lesson 14	Pelvic Scanning Pelvic Anatomy Explanation of Procedure Scanning Windows. Tips and Technique AIUM Protocol	Scan Test #3 Pelvis
Lesson 15	Small Parts Scanning Intro to Thyroid Anatomy Explanation of Procedure Scanning Windows. Tips and Technique AIUM Protocol	Affective Domain Evaluation #3
Lesson 16	Small Parts Scanning Thyroid Anatomy Explanation of Procedure Scanning Windows. Tips and Technique AIUM Protocol	
Lesson 17	Open Scanning Lab	Scan Test #1 Thyroid
Lesson 18	Open Scanning Lab	
Lesson 19	Open Scanning Lab	Final Scanning Exam Last Day to submit Portfolio.
Lesson 20	Final Scanning Exam	Affective Domain - Instructor Evaluations Due

Grading System:

4 timed Scan tests @ 20 pts each	100 points
4 Affective domain instructor evaluations	100 points
Portfolio Project	200 points
Final scanning assessment	<u>100 points</u>
	500 points total

Grading Scale

95%-100% = 4.0
90%- 94% = 3.5
85%- 89% = 3.0
80%- 84% = 2.5
75%- 79% = 2.0
70%- 74% = 1.5
65%- 69% = 1.0

DMS students must maintain a 2.0 in each course to remain in the DMS programs.

Facilitator's Responsibilities:

The facilitator's responsibilities include facilitate learning by providing and explaining the necessary materials for each student to understand the assignments and develop course goals, objectives, and performance objectives to a near mastery level. See JC DMS Handbook for a listing of these goals, course objectives and performance objectives. Knowledge gained from this course should aid students in their clinical experiences. Classes will begin on time weather permitting

Student Responsibilities:

Students are expected to be participate and be prepared for each session. It is presumed by the facilitator that assignments, including reading, will be completed on time and prior to material on subjects being presented; such preparations allows the student the best learning opportunities to understand material presented and pose questions in areas requiring clarity. The pace of this course makes it very difficult for a student to catch-up once a student falls behind.

Professional Qualities should be reviewed carefully in preparation for clinical in the fall. All students are expected to be very familiar and have a complete understanding of the Professional Qualities prior to entering clinical.

It is highly suggested by the instructor that students utilize as many references as possible to enhance their learning and understanding.

Academic Honesty Policy

Academic honesty is expected of all students. It is the ethical behavior that includes producing their own work and not representing others' work as their own, either by plagiarism, by cheating, or by helping others to do so.

Plagiarism is the failure to give credit for the use of material from outside sources.

Plagiarism includes but is not limited to:

- Using data, quotations, or paraphrases from other sources without adequate documentation
 - Submitting others' work as your own
 - Exhibiting other behaviors generally considered unethical
- Cheating means obtaining answers/material from an outside source without authorization. Cheating includes, but not limited to:
- Plagiarizing in all forms
 - Using notes/books without authorization
 - Copying
 - Submitting others' work as your own or submitting your work for others
 - Altering graded work
 - Falsifying data
 - Exhibiting other behaviors generally considered unethical

Collaboration

While JCC encourages students to collaborate in study groups, work teams, and with lab partners, each student should take responsibility for accurately representing his/her own contribution.

Academic Student Complaint Process

A student complaint is any non-civil rights related complaint generated by an individual student concerning the work-related activities of any faculty member (such as grade disputes). Academic Complaints can include but are not limited to the following: an evaluation of academic work (e.g., grade dispute, exam retakes) failure of a faculty member to follow college policies in the conduct of classes or examinations, etc.

Each student complaint is processed separately unless the instructor involved agrees to meet with multiple students.

The following steps outline the requirements of students as well as the timeline for the Academic Complaint Process:

1. Student Meets with Instructor

Students must initiate a scheduled conference with the instructor with whom they have a complaint no later than the end of the fourth week of the semester following the relevant incident/dispute. A face-to-face meeting is strongly preferred, but electronic formats that allow for multiple participants are acceptable. One representative, who must be from Jackson College (a current student, instructor or administrator), may be requested by each party to participate in this scheduled informal meeting. At this conference the student must identify the concern(s) and propose a resolution. If the instructor is no longer employed by the College the student will meeting with the Department Chair.

2. Student Puts Complaint in Writing

If the conflict is not resolved in the conference between the student and instructor, the student, if he/she chooses to pursue the matter further must put the complaint in writing using the form provided and submit it to the [Student Ombudsman](#). The complaint should contain (at a minimum): the date and time of the alleged conflict or action, the date and time of the Step 1 meeting, a summary of the complaint along with any relevant documentation and the specific resolution or outcome the student is seeking. The form and any accompanying documentation should be submitted within 10 business days of the Step 1 meeting.

3. Department Chair Holds an Informal Hearing

The Department Chair will contact the instructor and student to arrange a meeting within a reasonable timeframe following the guidelines in the faculty manual. The department chair will conduct any necessary investigation prior to the meeting. A face-to-face meeting is strongly preferred, but electronic formats that allow for multiple

participants are acceptable. One representative, who must be from Jackson College (a current student, instructor or administrator), may be requested by each party to participate in this scheduled informal meeting. The department chair's role in this meeting is a neutral mediator. The department chair will make a written recommendation within 5 business days for the meeting, the recommendation will be forwarded to the student, instructor and Student Ombudsman.

4. Complaint Submitted to Dean

If the student or instructor is unsatisfied with the results of the meeting with the Department Chair, they must request that the Student Ombudsman send the complaint on to the supervising Academic Dean. The Student Ombudsman will then forward the formal written complaint and any supporting documents, including the Department Chair's written recommendation. The Dean shall promptly provide the instructor and the Association President with a true and complete copy of the student's written statement(s).

5. Dean Holds a Hearing

Within five (5) business days of the time the instructor and the Association should have received the copies of the student's written statement(s), the Dean shall contact the student instructor and the Association President to arrange a formal hearing. A face-to-face meeting is strongly preferred, but electronic formats that allow for multiple participants are acceptable. Parties of interest that may attend the hearing shall include the student, the student ombudsman (if the student so desires), the instructor, his/her Association representative and the Department Chair. Other individuals may be present at the hearing but they may not participate in the proceedings.

6. Dean Issues a Resolution

Within five (5) business days after the hearing, the Dean will distribute a written resolution of the complaint to the student, instructor, the Association President and Student Ombudsman. The written resolution will state the facts as assessed by the Dean and indicate that appropriate action will be taken.

7. Appeal to the Provost

In the event the student or the instructor is not satisfied with the Dean's disposition of the complaint, the disposition may be appealed to the Provost. A Provost appeal will only be considered if it meets one of the following criteria:

- There is substantive new evidence that was not previously available at the time

- of the Dean's hearing which could have materially affected the outcome.
- There were procedural errors in the cares that substantively impacted the fairness of the hearing.

If the student or instructor has grounds for the appeal as delineated above the must submit a letter to the provost outlining the grounds for their appeal within five (5) business days of the receipt of the supervising Academic Dean's written resolution. The Provost may request all relevant documentation from the supervising Academic Dean and the Student Ombudsman The Provost will decide within five (5) business days of the receipt of al relevant documents where a formal appeal hearing is warranted.

If the Provost determines that a formal appeal hearing is warranted he/she shall contact the student, instructor, the Association President to arrange a formal hearing within a reasonable timeframe. Parties of interest that may attend the hearing shall include the student, the student ombudsman (if the student so desires), the instructor, his/her Association representative and the Department Chair. The provost may include a non-participating Academic Dean in the appeal process. A face-to-face meeting is strongly preferred, but electronic formats that allow for multiple participants are acceptable.

8. Provost issues an Appeals Resolution

Within five (5) business days after the hearing, the Provost will distribute a written resolution of the appeal to the student, instructor, the Association President, the supervising Academic Dean and Student Ombudsman. The written resolution will state the facts as assessed by the Provost and indicate that appropriate action will be take. This is the ultimate step in the Academic Student Complaint Process and the decision of the Provost is final.

Procedures for online or other students unable to travel to JC offices.

1. Meetings between students, faculty, department chairs, Academic Deans and other parties of interest will be held by conference call originating from JCC.
2. Written documents submitted by all parties must be sent by registered mail to verify receipt. Documents may be sent electronically for convenience but receipt of these will not be verified.
3. Students can find the Academic Complaint Form online at <http://www.jccmi.edu/administration/deans/Forms/AcadComplaintForm.html> Student signature on complaint form must be notarized.
4. Timelines begin on date documents are received as verified by registered mail.

Ultrasound Image Portfolio Assignment

Purpose: To evaluate students’ progress and use of lab time effectively. To provide clinical instructor with information about the students’ progress in summer lab.

Objective: To provide students with a better understanding of an ultrasound examination. To develop examination sequencing to understand scanning protocols. To develop time management during an ultrasound examination. To prepare students for clinical.

Students will assemble a portfolio in a folder consisting of a table of contents including the students logbook, lab logbook total sheet, attendance sheet, and the 9 examinations containing the required images neatly organized in a “storybook” progression within the timeframes outlined for each section. The time will be measured from the first image in the portfolio to the last. Failure to meet the timeframe will result in a deduction of 10 points for each minute after. Each section must be neatly assembled inside of a folder and reviewed by a lab instructor before taking the final scan examination.

Every image must be diagnostic with appropriate image depth, annotation, focus placement and gain settings. Failure to meet these requirements may result in rejection of image portfolio, delay student to complete competencies in a timely manner and result in the student missing the deadline to complete the final scan examination. **It is encouraged that students periodically check with lab instructors for appropriateness of image quality to avoid this situation.** Students failing this course will not be allowed to continue to clinical without a warning process initiated and submission of remediation logbook.

Ultrasound image portfolio Sections

Aorta	15 minutes
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- Longitudinal proximal aorta
- Longitudinal mid aorta
- Longitudinal distal aorta
- Longitudinal left iliac artery
- Longitudinal right iliac artery
- Transverse proximal aorta
- Transverse mid aorta
- Transverse distal aorta
- Transverse aortic bifurcation

IVC	20 minutes
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- Longitudinal Proximal IVC
- Longitudinal mid IVC
- Longitudinal distal IVC
- Transverse proximal IVC
- Transverse mid IVC
- Transverse distal IVC

Liver/ Abdomen Limited/RUQ

30 minutes

- Longitudinal left lobe liver with aorta
- Longitudinal left lobe liver with IVC
- Longitudinal right lobe medial liver with longitudinal main portal vein (intercostal)
- Longitudinal right lobe liver with right portal vein
- Longitudinal right lobe liver with diaphragm and kidney
- Longitudinal right lobe liver inferior extent
- Transverse left lobe liver left with left hepatic vein
- Transverse left lobe liver with left portal vein
- Transverse left lobe liver with caudate lobe
- Transverse right lobe hepatic veins into IVC
- Transverse right lobe right portal vein
- Transverse right lobe upper pole kidney
- Common hepatic duct with measurement (within Liver)
- Common bile duct with measurement (outside Liver)
- Longitudinal gallbladder supine
- Transverse gallbladder supine
- Longitudinal gallbladder LPO
- Transverse call platter LPO
- Longitudinal gallbladder LLD
- Transverse gallbladder LLD
- Pancreas in it's long axis
- Pancreatic head (can be combined with other pancreas images)
- Pancreas and body (can be combined with other pancreas images)
- Pancreatic tail (can be combined with other pancreas images)

Spleen

10

minutes

- Longitudinal spleen with measurement
- Longitudinal spleen with hilum and color
- Transverse spleen
- Transverse splenic hilum with color

Kidney

25 minutes

- Longitudinal right kidney lateral
- Longitudinal right kidney mid with measurement
- Longitudinal right kidney medial with Hilum
- Transverse right kidney upper pole
- Transverse right kidney midpole with Hilum
- Transverse right kidney lower pole
- Longitudinal Left kidney lateral
- Longitudinal Left kidney mid with measurement
- Longitudinal Left kidney medial with Hilum
- Transverse Left kidney upper pole
- Transverse Left kidney midpole with Hilum
- Transverse Left kidney lower pole
- Longitudinal urinary bladder

Transverse urinary bladder

Abdomen Complete

80

minutes

Longitudinal proximal aorta
Longitudinal mid aorta
Longitudinal distal aorta
Longitudinal left iliac artery
Longitudinal right iliac artery
Transverse proximal aorta
Transverse mid aorta
Transverse distal aorta
Transverse aortic bifurcation
Longitudinal Proximal IVC
Longitudinal mid IVC
Longitudinal distal IVC
Transverse proximal IVC
Transverse mid IVC
Transverse distal IVC
Longitudinal left lobe liver with aorta
Longitudinal left lobe liver with IVC
Longitudinal right lobe medial liver with longitudinal main portal vein (intercostal)
Longitudinal right lobe liver with right portal vein
Longitudinal right lobe liver with diaphragm and kidney
Longitudinal right lobe liver inferior extent
Transverse left lobe liver left with left hepatic vein
Transverse left lobe liver with left portal vein
Transverse left lobe liver with caudate lobe
Transverse right lobe hepatic veins into IVC
Transverse right lobe right portal vein
Transverse right lobe upper pole kidney
Common hepatic duct with measurement (inside Liver)
Common bile duct with measurement (outside Liver)
Longitudinal gallbladder supine
Transverse gallbladder supine
Longitudinal gallbladder LPO
Transverse call platter LPO
Longitudinal gallbladder LLD
Transverse gallbladder LLD
Pancreas in it's long axis
Pancreatic head (can be combined with other pancreas images)
Pancreas and body (can be combined with other pancreas images)
Pancreatic tail (can be combined with other pancreas images)
Longitudinal right kidney lateral
Longitudinal right kidney mid with measurement
Longitudinal right kidney medial with Hilum
Transverse right kidney upper pole

Transverse right kidney midpole with Hilum
Transverse right kidney lower pole
Longitudinal Left kidney lateral
Longitudinal Left kidney mid with measurement
Longitudinal Left kidney medial with Hilum
Transverse Left kidney upper pole
Transverse Left kidney midpole with Hilum
Transverse Left kidney lower pole
Longitudinal urinary bladder
Transverse urinary bladder
Longitudinal spleen with measurement
Longitudinal spleen with hilum and color
Transverse spleen
Transverse splenic hilum with color

Pelvis- Transbdominal

25 minutes

Longitudinal uterus with measurement
Longitudinal uterus with endometrium and measurement
Longitudinal right ovary
Longitudinal right ovary with measurement
Longitudinal right lateral pelvis including iliac vessels
Longitudinal left ovary
Longitudinal left ovary with measurement
Longitudinal left lateral pelvis including iliac vessels
Transverse uterus inferior
Transverse uterus mid
Transverse uterus fundus
Transverse right ovary
Transverse right ovary with measurement
Transverse left ovary
Transverse left ovary with measurement

Pelvis- Transvaginal (phantom)

25 minutes

Longitudinal uterus with measurement
Longitudinal uterus with endometrium and measurement
Longitudinal right ovary
Longitudinal right ovary with measurement
Longitudinal right lateral pelvis
Longitudinal left ovary
Longitudinal left ovary with measurement
Longitudinal left lateral pelvis
Transverse uterus inferior
Transverse uterus mid
Transverse uterus fundus
Transverse uterus superior
Transverse right ovary
Transverse right ovary with measurement

Transverse left ovary
Transverse left ovary with measurement

Thyroid

25 minutes

Lg. right Thyroid lateral
Lg. right Thyroid Mid w/ measurement
Lg. right Thyroid Mid With Color Doppler
Lg. right Thyroid medial
Transverse right Thyroid superior
Tr. right Thyroid Mid w/ measurement
Transverse right Thyroid inferior
Lg. left Thyroid lateral
Lg. left Thyroid Mid w/ measurement
Lg. left Thyroid Mid With Color Doppler
Lg. left Thyroid medial
Transverse left Thyroid superior
Tr. left Thyroid Mid w/ measurement
Transverse left Thyroid inferior
Isthmus in a transverse plane

**Jackson Community College
Introduction to Clinical (DMS-097)
Diagnostic Medical Sonography Program
Affective Domain Evaluation Form**

Student:	
Evaluator:	
Date:	

Directions: Rate the performance on a scale of 1-4 utilizing the following criteria.

- 1 = UNACCEPTABLE PERFORMANCE
(Student demonstrates this skill less than 74% of the time)
- 2 = BELOW AVERAGE PERFORMANCE
(Student demonstrates this skill greater than 75% of the time)
- 3 = AVERAGE PERFORMANCE
(Student demonstrates this skill greater than 85% of the time)
- 4 = ABOVE AVERAGE PERFORMANCE
(Student demonstrates this skill greater than 95% of the time)

Initiative

Student demonstrates the ability to act independently and be self-motivated. This includes the following

	1. Takes advantage of all opportunities to scan.
	2. Takes the initiative to be involved in every learning opportunity.
	3. Accepts constructive criticism from instructors and students.
	4. Seeks to help others with challenging situations.
	5. Asks questions or volunteers information pertinent to their knowledge.
	Subtotal score (20 pts. Possible)

Interpersonal skills

Student demonstrates professionalism and empathy when others. This includes the following:

	1. Demonstrates appropriate communication others.
	2. Student demonstrates and maintains a positive attitude.
	3. Demonstrates patience for others
	4. Shows respect for the patient's modesty and dignity.
	5. Demonstrates concern for patients comfort.
	6. Communicates effectively and appropriately with others.
	Subtotal score (24 pts. Possible)

Professionalism

Student demonstrates professionalism when dealing with others. This includes the following:

	1. Behaves in a manner that promotes friendliness and cooperation
	2. Demonstrates eagerness to perform assigned tasks.
	3. Demonstrates a willingness to work with/for others to accomplish goals.
	4. Demonstrates an ability to communicate in an appropriate and constructive manner
	5. Demonstrates professionalism in attendance and conduct.

	Subtotal score (20 pts. Possible)
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DMS Lab Rules

1. Show up for class on time and be prepared to participate
2. Take advantage of all opportunities to scan.
3. Take the initiative to be involved in every learning opportunity.
4. Accept constructive criticism from instructors and fellow students.
5. Seek to help others with challenging situations.
6. Ask questions or volunteer information pertinent to your knowledge.
7. Demonstrate appropriate communication to others.
8. Demonstrate and maintain a positive attitude.
9. Demonstrate patience for others.
10. Show respect for the patient's/model's modesty and dignity.
11. Demonstrate concern for patient's/model's comfort.
12. Communicate effectively and appropriately with others.
13. Behave in a manner that promotes friendliness and cooperation.
14. Demonstrate eagerness to perform assigned tasks.
15. Demonstrate a willingness to work with/for others to accomplish goals.
16. Demonstrate an ability to communicate in an appropriate and constructive manner.
17. Demonstrate professionalism in attendance and conduct.
18. Demonstrate respect for the equipment and lab environment
19. Bring your own towel.
20. Do not monopolize scanning opportunities.
21. Clean transducers between patients/models.
22. No scanning without supervision from lab instructors.
23. Computer use is limited to lab related material.
24. Students are responsible for learning experiences.
25. All students must submit a signed or unsigned scan model consent form.
26. Scan models must first sign a scan model release form.
27. Shut down and clean machines in your area before you leave the lab.
28. No eating or drinking in the lab.
29. All cell phones must be turned off during class/lab

	Totals							
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