

## Jones County Junior College Diagnostic Medical Sonography Program

### Mission

The mission of the JCJC Diagnostic Medical Sonography program is to provide competency based educational opportunities to individuals that will enable them to obtain knowledge, skills, and attitudes necessary to succeed as sonographers.

### Philosophy and Purpose

In summary, the philosophy and purpose of the Associate of Applied Science Degree/Certificate option in the Diagnostic Medical Sonography Program are consistent with the philosophy and purpose of this college. The purpose of the Diagnostic Medical Sonography Program (DMS) is to prepare the graduate to function within the scope of practice of a Sonographer. The program will focus on meeting the needs of the Diagnostic Medical Sonographer. Faculty efforts will prepare students with skills, knowledge, and confidence to enter and to progress in the field of Diagnostic Medical Sonography, as well as to become an economically independent, productive, and contributing member of society.

### INTRODUCTION

Diagnostic Medical Sonography, also referred to as Ultrasound, offers a challenging career with excellent opportunities for advancement. The profession is in need of both qualified entry level technologists and advanced level specialists.

Jones County Junior College welcomes your interest in Diagnostic Medical Sonography (DMS). We hope that you will find this both helpful and informative. It is designed to serve as a guide through the application process and to yield a general understanding of the DMS program. This document will provide basic information about the school, the application procedures, student selection, and school policies, as well as other useful information. It is not the intent of this to create a property interest in a job for any applicant, student, nor to become a contract of employment. Jones County Junior College reserves the right to make program changes as deemed necessary.

**Applications to the Diagnostic Medical Sonography Program will be accepted through May 23, 2008. All other supporting materials, documents, and application requirements must also be completed and submitted by the last Friday in May, unless otherwise stated. Failure to Submit All Information or Complete All Requirements on or Before the Dates Indicated Will Void the Application.** If you have any questions or need further information, please contact the Diagnostic Medical Sonography Program office at (601) 477-4289.

### DESCRIPTION of the PROFESSION

A Diagnostic Medical Sonographer is a highly-skilled professional who uses specialized equipment to create images of structures inside the human body that are used by physicians to make a medical diagnosis. The process involves placing a small device called a transducer against the patient's skin near the area to be imaged. The transducer sends high frequency sound waves into the body that reflect off the internal structures. The transducer detects these sound waves as they are reflected off the internal structures and the reflections are analyzed by a computer in order to make an image of the structure(s) available for viewing on a monitor or other recording medium. Sonographers have extensive, direct patient contact that may include performing some invasive procedures. They must be able to interact compassionately and effectively with people whose condition ranges from healthy to critically ill.

The professional responsibilities include, but are not limited to:

- \* obtaining and recording an accurate patient history.
- \* performing diagnostic procedures and obtaining diagnostic images.
- \* analyzing technical information.
- \* using independent judgment in recognizing the need to extend the scope of the procedure according to the diagnostic findings.

- \* providing an oral or written summary of the technical findings to the physician for medical diagnosis
- \* providing quality patient care.
- \* collaborating with physicians and other members of the health care team.

Sonographers must also be knowledgeable about and limit the risk from possible exposure to blood and body fluids. Many Sonographers also assist in electronic and clerical scheduling, record keeping, and computerized image archiving. Sonographers may also have managerial or supervisory responsibilities.

### SPONSORSHIP

**Jones County Junior College assumes responsibility for the Ultrasound Program and is affiliated with clinical sites in Laurel, Hattiesburg, and Meridian and additional sites. The Ultrasound program is a 24-month program leading to an Associate in Applied Science Degree with a one(1) year certificate option. Due to the development of this new program, the accreditation process has not be completed; however, the program will be working towards accreditation soon.**

The school, however, will strive to maintain the “Standards for an Accredited Educational Program in Diagnostic Medical Sonography”. The accreditation process and compliance with the "Standards" offer both a means of providing public assurance that a program meets accreditation standards and a stimulus to programmatic improvement.

The American Registry of Diagnostic Medical Sonography (A.R.D.M.S.) is the certification body of graduates/completers of the Jones County Junior College Diagnostic Medical Sonography program. Graduates/ completers of the program will be able to seek eligibility from the American Registry of Diagnostic Medical Sonographers or the American Registry of Radiologic Technology (Sonography Certification) to sit for their respective certification registries. Once the graduate/completer has successfully challenged either of the national certification registries, he/she will have earned the title of Registered Diagnostic Medical Sonographer (.R.D.M.S.) from the A.R.D.M.S. and/or Registered Radiologic Technologist (Sonography) – R.T. (R)(S)(A.R.R.T.).

**(Eligibility for registry certification required that the candidate be of good moral character. Candidates with past misdemeanors or felony convictions are advised to contact the A.R.D.M.S. and/or A.R.R.T. to determine eligibility.)**

### NON - DISCRIMINATION STATEMENT

**Jones County Junior College Diagnostic Medical Sonography Program does not discriminate against any qualified student or prospective student because of race, religion, age, sex, disability, or national origin. All applicants must be at least 18 years of age and proof of age may be required.**

### APPLICATION REQUIREMENTS

The applicant must:

- |  |                        |
|--|------------------------|
| Be accepted to or eligible for enrollment at Jones County Junior College   |                        |
| Have a minimum composite score of 17 on the American College Test (ACT)  | Have a                 |
| minimum G.P.A. of 2.5  | Have a                 |
| Bachelor’s of Science degree from an accredited institution in any field (preference will be given to medical and/or science related fields) <b>or</b> Be a Registered Radiologic Technologist (A.R.R.T.) and in good standing with the American Registry of Radiologic Technologists, or be registry-eligible with the American Registry of Radiologic Technologists. (Documentation must be provided as to status.) <b>or</b> hold a degree/diploma from an accredited two year allied health program (program must include patient care and clinical training). |                        |
| Diagnostic Medical Sonography Application Package  | Completed the          |
| and Physiology I and II with a “C” or better.  | Completed Anatomy      |
| Algebra or College Algebra (preference will be given to college algebra)   | Completed Intermediate |

### **Application Deadline is April 30, 2009.**

\*\*Applicants must complete all prerequisites **prior** to being accepted into the Diagnostic Medical Sonography Program. Prerequisites must be from a postsecondary institution such as a college or a hospital-based Radiologic Technology program. The number of students accepted into the Diagnostic Medical Sonography Program is based on the standards set by the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS). These requirements are based on the program's clinical education setting availability.

If an applicant is not accepted into the program and wishes to try again, he/she must submit another application.

### **APPLICATION FOR ADVANCED STANDING, TRANSFER OF CREDIT OR READMISSION**

Applicants who wish to apply for advanced standing, transfer of credit, or readmission into the program must submit a written request, meet all application requirements, and complete the application process. The request, application, and all required materials should be submitted to the Diagnostic Medical Sonography Program Director. Applications for advanced standing, transfer of credit, or readmission will be considered based on available clinical positions, grades, course work, and references. Program faculty will review all applications. Completed applications will be presented to the Dean of Technical and Career Education and the Academic Dean for consideration. The applicant will be promptly notified of the decision.

Applicants applying for advance standing or readmission into the Ultrasound Program must:

- \* Submit a written request.
  - \* **Submit an application.**
  - \* Be at least 18 years of age.
  - \* Be accepted or eligible for enrollment at Jones County Junior College.
  - \* Have one of the following qualifications. 1) Be a Registered Radiologic Technologist (A.R.R.T.) and in good standing with the A.R.R.T **or** be registry eligible **OR** 2) hold a Bachelor's degree **OR** 3) a degree from a two year allied health program.
  - \* Submit an official college transcript(s).
  - \* Submit midterm grades if applicable.
  - \* Submit two reference forms. **(One from the previous Ultrasound Program)**
  - \* Have a composite ACT score of 17, or equivalent on the Enhanced A.C.T.
  - \* Have a minimum G.P.A. of 2.5.
  - \* Have course work equivalent to the level for which he/she is making application.
  - \* Be able to perform the following functions:
    - Reach and manipulate equipment at a height of six feet.
    - Lift or move objects weighing a minimum of fifty (50) pounds.
    - Stand for lengthy periods (approximately 6 hours a day).
    - Walk long distances in reasonable time (approximately 1/4 mile in 5 minutes).
    - Display good manual dexterity.
- \*\*The abilities listed above should be accessed by the J.C.J.C. School Nurse prior to acceptance into the program.
- \* Be capable of accepting responsibility.
  - \* Submit an acceptable medical examination and required immunization records, if accepted.
  - \* Have verifiable character references including previous program faculty and clinical instructors.

### **STUDENT SELECTION**

The Diagnostic Medical Sonography Program is currently accepting applicants for the August 2009-2010 program. Each applicant meeting the minimum requirements will be notified of the date, time, and location of the admission interview. The Diagnostic Medical Sonography Program may accept up to eight (8) students. Two alternates may also be selected. In the event that any of the selected applicants selected are unable to accept their position(s), the alternate/s will be contacted and offered the position/s.

**Admission into the Diagnostic Medical Sonography program is by way of an interview process with the Program Director and/or the Admissions Committee. The Program Director and/or Admissions Committee has the responsibility of**

**screening all qualified applicants for the Sonography program who have submitted the required records and credentials, and have met the preliminary requirements.**

From the applicants presenting themselves for admission, the Committee selects from those applicants those who are deemed most likely to successfully complete the Sonography program and enter the professions as a career.

Selection criteria is based on academic records, G.P.A., A.C.T. scores, completed course studies, work experience, motivation and goals, and the personal interview. Acting upon the recommendation of the Admissions Committee, the Program Director will notify each applicant of the results, either selection or rejection.

**The Admissions Committee does not discriminate against anyone protected by law because of age, creed, color, national origin, race, religion, sex, disability, disabled veteran, or other status.**

All applicants will be notified of the interview results promptly.

### **ADMISSION TO THE PROGRAM**

**\*\*For the ARRT registry-eligible applicant, admission may be granted CONTINGENT upon the applicant providing documentation of registry certification by the American Registry of Radiologic Technologists. Documentation must be provided at least ten (10) days prior to the beginning of the Diagnostic Medical Sonography program.**

**The newly selected students will attend an orientation meeting usually in late June or early July. The date, time, and location of the meeting will be addressed in the acceptance letter. The spouse, guardian, and/or parents of the students are welcome, and in fact, are encouraged to attend this meeting.**

**Required documentation to be provided at the orientation meeting.**

- Favorable physical report
- Current Tuberculin Skin test (TB )
- Hepatitis vaccine
  - Series to be completed by September 1
  - Student may show proof of prior vaccination.
  - Student may sign declination form.
- Varicella Titer
- Current CPR – American Heart Association

***(Physician selection and any related charges are the responsibility of the student. Physician must be licensed to practice.)***

The Jones County Junior College Student Handbook and the Diagnostic Medical Sonography Program Student Manual will be issued at the orientation meeting. The manuals will be discussed and various forms will be signed. Information contained in these manuals fully describes the responsibilities of the College, the Ultrasound Program, the Clinical Affiliates, and the Student. A thorough reading and familiarization of the manuals will be required of the student. **\*\* The student will also be required to sign a statement acknowledging the content of the manuals.** A written test will be given on the handbook/manual on the first day of class. This test will be included in the grade for the DMS 1114 course.

All forms requiring the student's signature must be turned in on or before the first day of class.

**Any questions or concerns of the student, parent, guardian, or spouse should be addressed to the Program Officials before signing any of the forms.**

### **Demonstration of Skills, Abilities, Physical Requirements**

(adapted from the SDMS website)

Ability to effectively operate sonographic equipment and evaluate sonograms in order to acquire appropriate diagnostic information.

Ability to integrate diagnostic sonograms, laboratory results, patient history and medical records, and adapt sonographic examination as necessary.

Ability to use independent judgment to acquire the optimum diagnostic sonographic information in each examination performed.

Ability to evaluate, synthesize, and communicate diagnostic information to the attending physician.

Ability to communicate effectively with the patient and the health care team, recognizing the special nature of sonographic examinations and patient's needs.

establish and maintain effective working relationships with the public and health care team.

established departmental procedures.

efficiently and cope with emergency situations.

Ability to

Ability to follow

Ability to work

The student must be physically capable of carrying out all assigned duties:

and physical health sufficient to meet the demands of the position.

to: lift some patients, move heavy equipment on wheels (up to approximately 500 lbs), and to move wheelchairs and stretchers.

prolonged arm positions necessary for scanning.

Emotional

Strength sufficient

patients in

Ability to maintain

### PREGNANCY POLICY

**Declared Pregnant Student:** A student who has **voluntarily informed the program officials, in writing** of her pregnancy and the estimated date of confinement. A student has the right to declare their pregnancy; at such time the precautions listed below are recommended. The student also has the right to not declare their pregnancy, in which case, the student will be treated as though she were not pregnant. Once a student has declared her pregnancy, the student also has the right to undeclare her pregnancy at any time. This is in accordance with Federal and State laws.

Due to the number and variety of courses in the curriculum and the importance of maintaining a rotation schedule through various assigned areas without interruption; should any student suspect pregnancy, they are recommended to report it immediately to the Program Director.

Upon declaration of pregnancy, it is suggested that the student will:

1. Submit a statement from her physician verifying pregnancy and the expected due date. The statement should include the physician's recommendation as to which of the following options would be advisable:

a. Immediate leave of absence.

b. Withdrawal from clinical rotations with continued participation in didactic instruction.

c. Continued full-time status.

2. Submit in writing, within 24 hours, her decision as to remaining in the program dependent on the above, or resigning from the program. If resignation is the choice, no other action is indicated.

3. Leave of absence will be reviewed on an individual basis by the School Medical Advisor, Department Chairperson, and the Program Director dependent on the physician's recommendation.

4. Be required to attend the regular class schedule only, with clinical objectives to be met after delivery, should her physician recommend this option.

5. If maintaining full-time status, the following is recommended:

a. Strict adherence to **ALL** safety precautions for protection purposes.

At any time the declared pregnant student feels she is working in an unsafe area or under conditions she feels are detrimental, the student should remove herself immediately and report to the Departmental Supervisor, and/or Program Director

c. Since most Ultrasound Departments are located within the Radiology Department, the student should adhere to the A.L.A.R.A. concept in keeping possible radiation exposure as low as reasonably achievable. The maximum allowable exposure for the declared pregnant student is 0.5 rems during the entire gestational period.

6. Be informed that, dependent on the type of course(s), degree of difficulty of the course(s), and her academic standing and length of time out, she may be required to retake the course(s) in its entirety.

b.

7. Be required to complete upon her return all clinical competencies and rotations missed or not completed prior to and during her maternity leave. In addition, she will be evaluated by the Program Faculty in those clinical competencies completed prior to time out and will be subject to participation for review purposes should the Faculty deem it necessary.
8. Return to full-time status as soon as possible after delivery, but only on the express written permission of her physician.
9. Realize that the student must complete, upon her return, **ALL** requirements for graduation, including length of time in the program, required course(s), clinical competencies, and clinical rotations. No diploma or certificate will be issued until **ALL requirements** have been successfully met.

**LEAVE OF ABSENCE FOR REASONS OTHER THAN MEDICAL-** will be considered on an individual basis. A written request stating the reason(s) for a leave of absence must be submitted and will be decided on by the Medical Advisor, Department Chair, and Program Director after counseling with the student.

#### **REINSTATEMENT POLICY**

The student who earns a final grade below a 75% on any Diagnostic Medical Sonography course will be ineligible to continue in the Diagnostic Medical Sonography Program. Applications for reinstatement must be in accordance with the following policy:

- a. The student must inform the Program Director, in writing, of his/her desire to re-enter the Diagnostic Medical Sonography Program.
- b. Reinstatement will be based on the recommendations of the Diagnostic Medical Sonography Program Admissions Committee.
- c. If reinstatement is granted, he/she will re-enter the program as a full-time student at the next course offering.
- d. A student who earns a course grade below a “75%” may be reinstated **ONE (1) time ONLY**.
- e. The re-entry into the program must occur within one year.

#### **RELATED WORK POLICY**

The Program recognizes that local hospitals and clinics may from time to time hire students enrolled in the Diagnostic Medical Sonography Program at Jones County Junior College to work as student sonographers. The Program takes no responsibility for **ANY** student while he/she is working outside the Program. The student should be aware that the liability insurance required by the college for all health care students **ONLY** covers a student’s activities while actively participating in the educational program. The liability insurance required by the college **DOES NOT** cover a student while employed as a student sonographer.

JCJC student uniforms, which include a name tag required by the Diagnostic Medical Sonography Program, are to be worn **ONLY** while attending clinical assignments. Student uniforms are not to be worn when the student is working outside of the Ultrasound Program. **The student is aware of his/her responsibilities to the program before he or she enters the program, therefore, no changes in the program schedule will be made to accommodate outside work schedules.**

#### **FINANCIAL INFORMATION**

Information on tuition and fees can be found in the Jones County Junior College Catalog. In addition to tuition and general fees, the student should also expect additional cost during the program. Examples of some additional cost are indicated below:

*C.P.R. Certification	20.00
*T.B. Skin test	10.00
*Hepatitis B Vaccination (3 @ \$50.00 ea.)	150.00
*Varicella Titer IGG	30.00
*Uniforms (minimum of 3) (Include one lab coat minimum)	175.00
*Shoes	50.00
*Books (Available at the bookstore)	990.00

*Lab Fees (40.00 each x 2)	80.00
*Liability Insurance (\$20.00 yr)	20.00*
*School Student I.D. Name pins (minimum 2 @ \$5.00 ea.)	10.00
*Organizational member fees	<u>40.00</u>
	\$1575.00

**THIS LIST IS NOT MEANT TO BE TOTALLY INCLUSIVE. It is offered simply to give the student an idea of related cost. These costs are estimations and actual cost may vary.**

**Other costs such as transportation, living expenses, etc . . . are also the responsibility of the student.**

#### **MAXIMUM PROGRAM INVOLVEMENT**

The maximum hours of clinical and academic involvement will not exceed a total of forty (40) hours per week. Students will not be exploited.

#### **FINANCIAL AID**

Various means of financial assistance are available to the students of the program. The Director of Financial Assistance has been designated to provide this information to the student. Students interested in financial aid or who have questions concerning such assistance should refer to the J.C.J.C. Student Handbook or contact the Director of Financial Assistance.

#### **ABSENTEE/TARDY POLICY**

##### **Academic Absences:**

The following academic absentee and tardy policies are outlined in the college student handbook and program student manual.

The sonography program has a "no cut" policy. Since there are times that a student must be tardy or absent from class the following policies will be observed:

1. Students missing less than 10 minutes of class time are charged with a "tardy." Three tardies constitute one absence. Students missing more than 10 minutes of class time will receive an absence.
2. The JCJC DMS program follows the JCJC absentee policy strictly. When a student exceeds the allowed appeals for re-entering must be made immediately.
3. Students missing scheduled examinations will receive a zero on the examination unless the instructor and Dean of Students deem the absence to be of a justifiable nature. All make up tests are given during the week of scheduled final exam times.

In addition to the policies above, the program requires that: **ALL** absences must be reported to the student's assigned clinical site and program faculty **prior** to his/her scheduled arrival. Unexcused absences or failure to comply with the proper reporting of an absence will result in a deduction of **five (5) points per** occurrence from the semester average of each class affected.

##### **Clinical Absences: (Please note that this is different from the absentee policy for didactic classes.)**

The clinical rotation portion of the DMS program also has a no-cut policy. **ALL** clinical absence time **MUST** be made up. Making up missed clinical time along with the scheduled didactic and clinical rotation must not exceed 40 hours; therefore, making up missed clinical time will be on the student's own time. (Ex. During times when JCJC is not holding classes -weekends and school holidays.) **\*\*The student must submit, in writing, a request to the Program Director to be allowed to make up missed clinical time.** .

#### **COUNSELING**

Confidential student counseling is available to students of the program as needed. Program officials will interview each student individually if the student requests such assistance.

## DRESS CODE

The dress code of the program requires the student to purchase a minimum of three uniforms. The student will be required to report for assignments well groomed; wearing a clean, neat uniform each day. Students are asked to keep hair styles neat (no extreme colors or styles) and professional in appearance. No perfume or cologne will be allowed during clinical rotation. For the safety of the student sonographer, excessive jewelry such as dangling chains, long earrings, or facial piercing/s will not be allowed during clinical time. Gum chewing will be prohibited in clinical rotation, also. Applicants having questions concerning the program dress code should contact the Program Director for more detailed information.

## CONDUCT

The student will be required to comply with all rules, policies, and regulations of the college, the program, and the clinical affiliates throughout the program.

## ADA STATEMENT

The Americans with Disabilities Act and Section 504 of the Rehabilitation Act afford qualified individuals with disabilities with certain rights. Disabled individuals desiring accommodations should contact Katie Murphy, Room 117, Administration Building, 601-477-4028. Under the law the individual must request accommodation and provide the College with up-to-date and valid documentation of the disability. A copy of the "Disability Accommodation Manual" is available in the Enrollment Office upon request.

## THE CURRICULUM

Each freshman Diagnostic Medical Sonography class at Jones County Junior College begins the Fall semester. Students are required to enroll as full time students each semester throughout either the two (2) year Associate in Applied Science or twelve (12) month certificate option program. Students receive approximately forty (40) hours of combined classroom instruction, clinical instruction, and practical experience each week during the one year program. Didactic (classroom) instruction precedes clinical (practical) instruction. The combination of didactic and clinical instruction prepares the student for supervised clinical participation in the Ultrasound Department.

Didactic and laboratory instruction are offered at Jones County Junior College. Clinical participation and scheduled rotations are offered at the clinical sites. Clinical Affiliates are located in Laurel, Hattiesburg, Collins, and Meridian. In the future, the Program may offer additional sites. **Transportation to and from the clinical sites will be the responsibility of the student.**

## GRADING SYSTEM

90 – 100	A	Excellent
80 - 89	B	Above Average
70 - 79	C	Satisfactory
60 - 69	D	Unsatisfactory
0 - 59	F	Failing

Grades are maintained for each individual course. These grades are derived by averaging grades earned from class work, assignments, examinations, and/or clinical laboratory and competency evaluations.

## MINIMUM REQUIREMENTS

Students are required to maintain the following minimum grade averages to remain in the Ultrasound program:

**75%** in **each** didactic course.

**85%** proficiency on **each** clinical competency – Fall and Spring semester

90% proficiency on **each** clinical competency – Summer semester

**DIAGNOSTIC MEDICAL SONOGRAPHY  
(Ultrasound Technology)**

**Prerequisite courses for admission to Diagnostic Medical Sonography**

BIO 2514	Anatomy & Physiology I (LAB)	4	
BIO 2524	Anatomy & Physiology II (LAB)		4
MAT 1233	Intermediate Algebra OR		
MAT 1313	College Algebra		<u>3</u>
			11

**First Year (Certificate)**

**First Semester**

DMS 1114	Introduction to Ultrasound (LAB)	4	
DMS 1213	Sectional Anatomy	3	
DMS 1313	Physics and Instrumentation (LAB)	3	
DMS 1414	Clinical Experience I	<u>4</u>	
			14

**Second Semester**

DMS 1513	Abdominal Sonography	3	
DMS 1523	Obstetrics and Gynecology Sonography	3	
DMS 1533	Advanced Sonographic Procedures	3	
DMS 1323	Physics and Instrumentation (LAB)	3	
DMS 1426	Clinical Experience II	<u>6</u>	
			18

**Summer Semester**

DMS 1613	Sonography Seminar	3	
DMS 1623	Ultrasound Examination Critique	3	
DMS 1436	Clinical Experience III	<u>6</u>	
			12

**Second Year (Associates Degree)**

**First Semester**

ENG 1113	English Composition I	3	
PSY 1513	General Psychology	3	
	Electives	<u>6</u>	
			12

**Second Semester**

SPT 1113	Speech	3	
CSC 1113	Introduction to Computer Concepts	3	
ENG 1123	English Composition II	3	
	Fine Arts/Humanities Elective	<u>3</u>	
			12

## DIAGNOSTIC MEDICAL SONOGRAPHY TECHNOLOGY COURSE DESCRIPTIONS

**DMS 1114 Introduction of Ultrasound** – Prerequisite: Acceptance into the Diagnostic Medical Sonography Technology Program and CPR. This course includes scanning protocols for the abdomen, superficial structures, as well as obstetrical and gynecological sonographic examinations. Students will become familiar with ultrasound equipment, types of film recording, video recording, and imaging techniques. Program specifics include dealing with emotional patients, legal-ethical issues, reporting procedures, and patient contact and the role of the sonographer in patient care. Three hours lecture. Two hours lab. Four semester hours credit.

**DMS 1213 Sectional Anatomy** - Prerequisite: Acceptance into the Diagnostic Medical Sonography Technology Program. This course provides students with sectional anatomy of the abdomen, superficial structures, as well as obstetrical and gynecological structures. Gross anatomy and physiology are discussed. Students will be prepared to identify and discuss normal sectional anatomy as seen on ultrasound images. Three hours lecture. Three semester hours credit.

**DMS 1313 Ultrasound Physics and Instrumentation I** - Prerequisite: Acceptance into the Diagnostic Medical Sonography Technology Program. In-depth presentation of the basic principles of diagnostic medical ultrasound physics and instrumentation. Description of diagnostic ultrasound transducers and ultrasound interaction with tissues will be presented. Two hours lecture. Two hours lab. Three semester hours credit.

**DMS 1323 Ultrasound Physics and Instrumentation II** – Prerequisite: DMS 1114, DMS 1213, DMS 1313, DMS 1414. This class includes an in-depth presentation of image display modes, Doppler, color Doppler, and hemodynamics of diagnostic ultrasound. The causes of artifacts and how to scan safely, conduct instrument performance measurements, and prepare for registry examinations. Two lecture hours. Two lab hours. Three semester hours credit.

**DMS 1414. Clinical Experience I** - Prerequisite: Acceptance into the Diagnostic Medical Sonography Technology Program and CPR. The students will receive clinical instruction and hands-on experience in the scanning lab prior to being assigned to a clinical site. Students will be assigned to clinical sites to begin instruction from diagnostic medical sonographers. Students receive instruction and guidance in producing quality sonographic images and the parameters used to evaluate the images. Hands-on experience will be allowed only with direct supervision from a Staff Sonographer. Sixteen clinical hours. Four semester hours credit.

**DMS 1426 Clinical Experience II** - Prerequisite: DMS 1114, DMS 1213, DMS 1313, DMS 1414. Students rotate through clinical affiliates to gain continued experience and knowledge in the performance of ultrasound procedures. Students are expected to have direct patient contact and perform ultrasound exams in clinical affiliates with the direct supervision of staff sonographers. Sonographic examinations performed by students should be reviewed by a staff sonographer prior to submission to the radiologist for interpretation. Twenty-four clinical hours. Six semester hours credit.

**DMS 1436 Clinical Experience III** - Prerequisite: DMS 1513, DMS 1523, DMS 1533, DMS 1323, DMS 1426. Students will be able to follow the correct protocol for basic sonographic examination from the time patient enters the room until the patient's examination is submitted to and is interpreted by a Radiologist. Students are in assigned clinical affiliates gaining clinical experience under the direct supervision from staff sonographers. Students may request to rotate through ultrasound specialty areas such as vascular and cardiac. Thirty-two clinical hours. Six semester hours credit.

**DMS 1513 Abdominal Sonography** - Prerequisite: DMS 1114, DMS 1213, DMS 1313, DMS 1414. This course includes a presentation of pathology and pathophysiology that occurs with abdominal organs including the liver, spleen, pancreas, kidneys, and vascular structures within the abdomen and the correlation with sonographic imaging. The student will be able to recognize pathology and normal aging processes associated with the abdominal organs. Three hours lecture. Three semester hours credit.

**DMS 1523 Obstetrical and Gynecological Sonography** - Prerequisite: DMS 1114, DMS 1213, DMS 1313, DMS 1414. This course provides a presentation of pathology and pathophysiology associated with female pelvic structures correlating with sonographic imaging. Sonographic evaluation of pregnancy from conception to birth including normal and abnormal fetal

development is discussed. Sonographic evaluation of infertility and relating imaging procedures along with laboratory values will be presented. Three lecture hours. Three semester hours credit.

**DMS 1533 Advanced Sonographic Procedures** - Prerequisite: DMS 1114, DMS 1213, DMS 1313, DMS 1414. Superficial structures including the thyroid, parathyroid, scrotum, breast, and associated pathology, pathophysiology, and laboratory values are presented. Sonographic image correlation is included. This course also includes vascular imaging, ophthalmic, cardiac and neurosonology. Students are introduced to areas of ultrasound outside of general sonography and are given a chance to review these areas for future reference. Three hours lecture. Three semester hours credit.

**DMS 1613 Sonography Seminar** - Prerequisite: DMS 1513, DMS 1523, DMS 1323, DMS 1426. This course includes simulated, written as well as computerized, registry examinations in order to prepare the student to sit for the national credentialing registries. Three lecture hours. Three semester hours credit.

**DMS 1623 Ultrasound Examination Critique** – Prerequisite: DMS 1513, DMS 1523, DMS 1533, DMS 1323, DMS 1426. This course is a presentation of case studies containing normal and pathology associated with: abdominal organs, superficial structures, gynecological structures, as well as obstetrical exams. Students should become more familiar with identifying pathology and imaging processes as well as normal variations within the human body as seen on sonographic images. Three lecture hours. Three semester hours credit.

### **CERTIFICATION in DIAGNOSTIC MEDICAL SONOGRAPHY**

**After graduation from or completion of the Jones County Junior College Diagnostic Medical Sonography program, the graduate/completer will be qualified to seek eligibility to sit for the registry of either the A.R.D.M.S. or the A.R.R.T. in sonography. Upon successful completion of the registry examination of the A.R.D.M.S., the student will have earned the credentials of Registered Diagnostic Medical Sonographer (R.D.M.S.), or upon passing the Sonography registry examination of the A.R.R.T., the student will have earned the credentials of Registered Technologist, R.T. (S) (A.R.R.T.).**

### **CAREER/EDUCATIONAL ADVANCEMENT**

After obtaining certification from the A.R.D.M.S. or the A.R.R.T., the sonographer may choose to continue his/her education by advancing into other imaging specialties or furthering his/her academic education.

Advancement opportunities in other imaging categories include:

Echocardiography  
\* Adult  
\* Pediatric  
Vascular Technology

Neurosonology  
Breast  
ROUB - Ophthalmology

### **EDUCATIONAL OPPORTUNITIES**

Students of the Diagnostic Medical Sonography program may also pursue an Associate of Applied Science degree by following the second year curriculum of the Diagnostic Medical Sonography Program of Jones County Junior College. More information about this program may be obtained by contacting the Jones County Junior College Guidance Office or referring to the college catalog.

We hope that you have found the information in this application packet and brochure helpful in your career choice. If you decide that Diagnostic Medical Sonography is the choice for you, we welcome your application.

If you have any questions or need further information about Diagnostic Medical Sonography, please contact:

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