

**Midland College**  
**Syllabus**  
**Spring Semester**  
**DMSO 2371**  
**Pediatric Sonography**  
**3 credit hours (2-2-0)**

**Course Description:**

This course covers normal anatomy and physiology of the pediatric abdominal and pelvic cavities, pediatric cranium and spine, and pediatric neck and thorax as related to scanning techniques, transducer selection and scanning protocols.

**Text, References and Supplies:**

1. Hagen-Ansert, Sandra L. Textbook of Diagnostic Ultrasonography Seventh Edition. St. Louis, Mosby.
2. Tempkin, Betty Bates, Pocket Protocols for Sonography Scanning. 4<sup>th</sup> Edition. Philadelphia, W.B. Saunders Company.

**Student Learning Outcomes:**

Upon successful completion of the course the student will:

1. Apply proper transducer orientation, image presentation and labeling.
2. Utilize proper medical terminology and statistics to relate findings to others.
3. Identify normal and abnormal pediatric anatomy on diagrams, photographs, models and images taken with ultrasound in multiple dimensions: sagittal, coronal, trans axial and oblique planes.
4. Correlate anatomy seen on ultrasound with other imaging modalities such as diagnostic x-ray, CT, MRI, and nuclear medicine.
5. Evaluate patient history and laboratory data as it relates to sonography.
6. Develop and implement appropriate scanning techniques using accepted protocols and additional scan planes and routines as indicated as indicated for each pediatric abnormality.
7. Utilize color flow Doppler and phase analysis to evaluate the blood flow of the organs.
8. Understand the pathogenesis and pathophysiology of common pediatric disease.

**Student Contributions, Responsibilities and Class Policies:**

Attendance is essential to the student's success and is outlined in the Midland College Catalog and Student Handbook, as well as, the Diagnostic Medical Sonography Student Handbook. The student is expected to participate in class discussions. Reading and workbook assignment are also important and should be completed prior to lectures for each unit. Material from reading/workbook which is not covered in class may appear on the tests. Missed quizzes and/or exams are required to be made up by/on the next scheduled class date (with the loss of 5 points). Any assignments made up later than this date will be accepted with the loss of one (1) letter grade per day that it is late. Late assignments will be accepted with the loss of 25% per scheduled day of class. Failure to comply with all components of this course will result in a failing grade.

**Evaluation of Students:**

The final grade will be a criterion-referenced standard percentage, not curved, composed as follows: 5% attendance, 10% from journal articles and lab assignments, 20% from weekly unit quizzes, class participation and class assignments, 40% from unit exams and 25% from the final examination. Failure to comply with all components of this course will result in a failing grade.

1. There will be three unit exams consisting of approximately 50-150 questions. Each exam will be constructed from a random sample of all the material presented prior to the exam date. Multiple formats may be used including short answer, short essay, diagram labeling and multiple choice.
2. The final exam will consist of 100-200 multiple choice questions and will be similar to the format utilized by the registry. The exam will be constructed of a random sample of all the material presented during the semester.
3. In the event that an exam is missed, it is the student's responsibility to arrange for the make-up exam within one week. The student may also expect an alternate method of testing for the make-up exam. If an exam is not made up, the student will receive a zero for that exam and the grades will be averaged accordingly.
4. Class assignments may consist of online tasks including journal articles and worksheets. Lab assignments will consist of computer aided instruction and scan lab assignments.
5. Weekly unit quizzes will consist of 10-50 questions over the material covered in the previous week. Multiple quizzing formats will be utilized.

**Course Schedule:**

Class will meet every Monday from 1:00 pm – 4:30 pm except for scheduled Midland College holidays. See attached class schedule for topics to be covered each lecture, quiz and exam schedule.

**Safety Training:**

Students receive training in the following: blood and air borne pathogens, electrical safety, back safety, hazardous chemicals, latex allergies, fire and disaster procedures, security and personal safety procedures and safety requirements of clinical facilities. Students must maintain current CPR, immunizations, and health insurance during all clinical courses.

**Americans with Disabilities Act (ADA):**

Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact Shep Grinnan as soon as possible. Mr. Grinnan's office is located in the Scharbauer Student Center Building. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations/documentation.

**Licensure Eligibility Notification**

Completion of Midland College degrees and/or certificates does not guarantee eligibility to take a certification/registry/licensure examination. The eligibility of each person is determined on an individual basis by the regulatory body of the specific discipline. If you have a conviction of a crime other than a minor traffic violation, physical or mental

disability/illness, hospitalization/treatment for chemical dependency within the past five years, current intemperate use of drugs or alcohol or a previous denial of a licensure or action by a licensing authority, you will need to contact the specific regulatory body for an individual ruling. Some programs require a criminal background check and urine and drug screen.

### **Non-discrimination Statement**

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individuals have been designated to handle inquiries regarding the non-discrimination policies: **Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, [tbaker@midland.edu](mailto:tbaker@midland.edu)**; **Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, [nmorgan@midland.edu](mailto:nmorgan@midland.edu)**. For further information on notice of non-discrimination, visit <http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm> or call 1 (800) 421-3481.

### **Instructor Information:**

Instructor: Brandi Havner, BAAS, RDMS  
Office: Marie Hall Sim-Life Center/Davidson Family HSB, RM 108  
Office phone: 432-685-5572  
Email: [bhavner@midland.edu](mailto:bhavner@midland.edu)  
Office hours: As posted. Students are encouraged to contact their instructor; making an appointment will help facilitate an instructor's availability at a specific time.

### **Division Information:** Health Sciences

Division Dean: Carmen Edwards, DNP, MSN, RN, 209 DFHS Building, 432-686-4822  
Program Chair: Brandi Havner, RDMS, BAAS, 108 DFHS Building, 432-685-5572  
Division Secretary: Karen Harris, 208 DFHS Building, 432-685-4600