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| **Course Credit:** | 1 Credit |
| **Time and Location:** | Thursday: Class 8:00-8:50pm  NURS Rm 120 |
| **Instructor:** | Chelsie Wheatley, BSRS, BSDMS, RT(R), RDMS, RVT |
| **Phone:** | 208-241-1599 or 208-282-4042 (Secretary, Alyssa) |

**Overview:** This course will provide advanced applications and theory in perinatology, pediatric imaging, cardiac sonography, vascular technology, and typical career opportunities available in these fields.

**Textbooks:** Hagen-Ansert, Sandra L. *Textbook of Diagnostic Sonography.* 8th Edition, Volume 1. St. Louis, Mo: Elsevier; 2018. ISBN 978-0-323-35375-5

**Method of Presentation:**  Lecture, PowerPoint, Handouts, Workbook, SonoSim, Moodle Supplement, Guest Speakers

**Code of Ethics:** DMS 4419 adheres to the ISU Code of Conduct.  In particular, academic dishonesty, however small, creates a breach in academic integrity.  A student's participation in this course comes with the expectation that his or her work will be completed in full observance of the ISU Code of Student Conduct.

**Course Learning Objectives/Goals:** This course has been designed to prepare student sonographers for the different specialty areas and career opportunities in the field of diagnostic medical sonography. The student will learn pediatric sonography in greatest detail, and have a brief overview of cardiac sonography, perinatology, musculoskeletal, and vascular sonography with guest speakers. At the conclusion of the course, students will understand the abundance of opportunity in the field of sonography.

**Course Learning Outcomes-- Upon completion of this course, the student will be able to:**

* Understand the different pediatric stages/ages and how to increase patient cooperation
* List the more common hepatobiliary, pancreatic, and splenic reasons for acute abdominal pain in the pediatric population
* List the more common acquired and hereditary diseases and how pediatric sonography can monitor the associated chronic or malignant processes
* List the causes of jaundice in the neonate and pediatric patient
* Distinguish obstructive from nonobstructive jaundice
* List the common primary hepatic tumors in children
* List the most common gastrointestinal surgical conditions in the pediatric population
* Discuss sonographic approaches to imaging neonatal/pediatric kidneys and adrenal glands
* Distinguish normal anatomy and sonographic findings from abnormal findings
* List and discuss abdominal pediatric pathologic conditions
* Recognize normal neuroanatomy as it pertains to the ultrasound examination of the preterm and term neonate
* Describe the coronal, sagittal, and mastoid view studies
* Discuss the sonographic findings in neonatal brain pathology
* Discuss anatomy of neonatal hip
* Describe normal movements of the hip
* Describe sonographic evaluation of the neonatal hip, including technique and protocol
* Describe the normal sonographic appearance of the neonatal hip
* Describe the sonographic evaluation of the neonatal hip for developmental displacement of the hip
* Differentiate subluxation of the hip and dislocation of the hip
* Describe the sonographic technique to image the neonatal and infant spinal column
* Describe the sonographic appearance of normal anatomy of the spinal cord, the dura, the nerve roots, and the cauda equina
* Describe how to determine the level of the lumbar vertebrae in the sonographic examination
* List the common pathologic conditions of the spinal cord and their sonographic appearances
* Discuss echocardiography, perinatology, and pediatric sonography career opportunities
* Explain the role of the sonographer with musculoskeletal imaging

**Academic Dishonesty Policy:**

Academic dishonesty (cheating, plagiarism, etc.) will not be tolerated in this class and may result in suspension or dismissal from this course and from the program. Cases will also be referred to the Dean of Students for possible dismissal from the university.

Cheating includes, but is not limited to, (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or completing other assignments; or (3) the acquisition of tests or other academic materials belonging to the university faculty or staff without permission.

Plagiarism includes, but is not limited to, the use of, by paraphrase or direct quotation without correct recognition, the published or unpublished works of another person. The use of materials generated by agencies engaged in "selling" term papers is also plagiarism.

***When students submit their efforts for grading, they are attesting that they have abided by these rules.***

**Classroom Procedure:**

1.  **Attendance:**  You are expected to attend class regularly.  It is your responsibility to maintain a level of attendance which will allow you to derive maximum benefit from the instruction.  Excessive absences (>10%) will result in a lower course grade if you are borderline between two grades.  Conversely, if you have good attendance and are border line between two grades, I will award the higher grade.

2.  **Grading Procedure:**

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| **Assessment Method** | **Percentage Value** |
| Test = Pediatric Sonography Ch. 25-29 | 40% |
| Attendance/Participation with Guest Speakers | 20% |
| Specialty Area Written Assignment | 15% |
| Resume | 15% |
| JDMS Article Reviews (2) | 10% |
| Total | 100% |

**This grading Scale will be used:**

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| +/- System |  |
| 93-100% A | 73-76% C |
| 90-92% A- | 70-72% C- |
| 87-89% B+ | 67-69% D+ |
| 83-86% B | 63-66% D |
| 80-82% B- | 60-62% D- |
| 77-79% C+ | 59% Below F |

*Note: A grade of C or better is required in this course in order to receive a degree from the Department of Radiographic Science.*

The minimum requirements to earn a passing grade are successful completion of all tests (70% minimum).  Tests and Quizzes will be a combination of either written or computer based.  Tests will be scheduled to be taken in a computer lab on campus.  The lab in the nursing building on the ground floor is the lab I try to schedule for tests; however, the Turner Lab is close to our classroom, and is the one I will try to schedule if the nursing building lab is not available. It is the student’s responsibility to know when and where tests are scheduled.  Dates are posted in the Web Course Calendar and reminders will be given in class.  Students may use their own wireless laptops if they have one if tests are given in class; otherwise, students are required to use a lab computer when testing.

3. **Computer Account:** All students are required to have an ISU student computer account.  There is no fee required for this account. Obtain the account at the Computer Center, which is located in the basement of the College of Business Building or in the Rendezvous Lab.

4.  **Make-up:** If you are unable to sit for an examination, you may request a make-up exam.  You must inform me that you will not be present for the examination **prior** to the scheduled time.  An additional 10% drop in the test grade will result if prior notification is not given and is not accepted by me prior to taking the test.  The highest grade you can receive for a make-up exam is 89% unless you provide me with an acceptable excuse. An acceptable excuse is defined **as very** sick; a death in the immediate family; some unforeseen circumstance that would prohibit you from taking the exam. The key is to communicate with me directly via email, phone, or in person. Do not speak to another faculty member or the department secretary. I’m very easy to catch with email, but make sure your email is received by me prior to the test deadline.

*In addition, it is a requirement to take all tests offered during the semester.  An incomplete will be issued for the class if a test is not taken.*

**Cell phone policy:** Cell phones should not be used in class. They should be place in silent or vibrating mode or turned off. Additionally receiving and retrieving text messages should not occur during class or in labs. Failure to follow this policy will result in a deduction of grade up to 10% at the discretion of the instructor. If you need to communicate to someone outside of the class in an emergency situation please inform the instructor so accommodations to this policy may be made.

**Disability Services:** Students with disabilities who wish to have accommodations provided by the University must self-identify with Disability Services (236-3599) in order to have accommodations provided. Information and applications are available in the Center and may be picked up in person or requested by telephone. The URL is <http://www.isu.edu/ada4isu/>