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| **Course Credit:** | 1 Credit |
| **Time and Location:** | Thursday: Class 9:00-11:00  NURS Rm 210/ Health West |
| **Instructor:** | Chelsie Wheatley, BSDMS, BSRS, RT(R), RDMS, RVT |
| **Phone:** | 208-241-1599 or  282-4042  (Secretary, Alyssa) |

**Overview:** This course will provide skills needed to apply knowledge learned in class. It will help to develop psychomotor and critical thinking skills required to properly perform commonly ordered sonography examinations. This will include hands on scanning exercises and completion of laboratory assignments and competency assessments. Students will acquire knowledge of anatomical landmarks, standard exam protocols, scanning techniques, patient care skills, and proper machine operation and maintenance.

**Textbooks:** None

**Method of Presentation:**  Lecture, SonoSim, Lab scanning

**Code of Ethics:** DMS 4411 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 clinical field. The student will learn the psychomotor skills needed for quality imaging, knobology, and image techniques. Basic use and maintenance of the machine will be taught. At the conclusion of this course, students will demonstrate understanding of sonographic protocols, image acquisition, scanning techniques, anatomic landmarks, image evaluation, and knobology. Ultimately, the student will gain a better understanding of the process involved in obtaining a technically adequate sonogram. This laboratory understanding prepares the student for the corresponding clinical experience. During this course specifically, students will gain a better understanding of lower extremity venous and arterial sonography, upper extremity arterial and venous sonography, carotid arteries, pancreas, kidneys, bladder, the GI tract, and abdominal wall.

**Course Learning Outcomes:**

* Identify the major organs within the abdominal cavity and the major vessels surrounding them.
* Demonstrate competency in scanning the pancreas, kidneys, bladder, upper and lower extremity venous and arterial systems, carotid arteries, and abdominal wall.
* Demonstrate competency in full abdominal exams.
* Demonstrate normal waveforms for abdominal vascularity.
* Demonstrate competency in holding the transducer and proper selection.
* Discuss the differences in transducers and which ones are appropriate for differing examinations.
* Identify the anatomic structures in venous insufficiency studies.
* Demonstrate competency in scanning perforators
* Demonstrate competency in scanning AV fistulae
* Demonstrate accurate measurement acquisition of the kidneys, and pre and post void bladders.
* Identify pancreatic pathologies and differing parenchymas sonographically.
* Identify sonographic appearances of pancreatitis
* Discuss findings of hydronephrosis and the stages
* Identify ureteral jets sonographically
* Show competency in Vertebral artery evaluation
* Discuss protocols for vascular imaging, as well as the indications and contraindications for it
* Demonstrate doppler imaging in the abdomen
* Discuss sonographic findings of polycystic kidney disease

**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.

Many components DMS 4411 are designed to be highly interactive.  Students are encouraged to take full advantage of the many resources available including Internet sites, handouts and workbooks, other textbooks and journals, faculty, and peers. This interactive collegial learning environment is conducive for life-long learning.

***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 lab 100% of the time. If you miss it, you will receive a 0. SonoSim images may be taken on the student’s own time at home but they have to be turned in by the deadline at midnight, MST.

2.  **Grading Procedure:**

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| **Assessment Method** | **Percentage Value** |
| SonoSim Images | 20% |
| SonoSim Quizzes | 20% |
| Lab Scanning Images/Knowledge of Material | 40% |
| Oral Lab Quizzes | 20% |
| 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 assigned work (70% minimum).

3. **Computer Account:** All students are required to have an ISU student computer account and a SonoSimulator.  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.

**Cell phone policy:** Cell phones should not be used in lab. 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. In the lab setting, images may be taken on your cell phones for the purpose of turning those images in to me for grading.

**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/>

**Academic Freedom and Responsibility Syllabus Statement:** In carrying out its educational mission, Idaho State University is committed to adhering to the values articulated in Idaho State Board of Education Policy III.B. Membership in the academic community imposes on administrators, faculty members, other institutional employees, and students an obligation to respect the dignity of others, to acknowledge the right of others to express differing opinions, and to foster and defend intellectual honesty, freedom of inquiry and instruction, and free expression on and off the campus of an institution.