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| **Course Credit:** | 1 Credit  |
| **Time and Location:** | Thursday: Class 10:00-10:50, NURS Rm 120 |
| **Instructor:** | Chelsie Wheatley, BSRS, BSDMS, RT(R), RDMS, RVT |
| **Phone:** | 208-282-3311 or 208-282-4042 (Secretary, Alyssa) |

**Overview:** This course will provide a fundamental presentation of topics that are important for students to master to become competent sonographers. It will cover the anatomy and scanning procedures of the female pelvis, the role of sonography in obstetrics, and clinical ethics for obstetric sonography. Emphasis is placed on pathology, various disease processes, and their sonographic appearance. Activities structured follow the guidelines of the ARDMS Obstetrics and Gynecology (OB/GYN) Examination.

**Textbooks:** Hagen-Ansert, Sandra L., *Textbook of Diagnostic Sonography, Volume 2.* 8th Edition. St. Louis, Mo: Elsevier; 2018. ISBN 978-0-323-35375-5

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

**Code of Ethics:** DMS 4404 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 responsibilities of sonographic imaging. The student will learn the normal anatomy and physiology of the female pelvis, sonographic and doppler evaluation of the female pelvis, pathology of the uterus, ovaries, and adnexa, the role of ultrasound in evaluation female infertility and obstetrics, and clinical ethics for obstetrical sonography. Ultimately, the students will gain a better understanding for GYN sonography and obtaining quality ultrasound images. At the conclusion of this course, the students will demonstrate an understanding of the topics listed above.

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

* Identify sonographically significant muscles of the pelvic cavity.
* Describe the pelvic organs and their functions.
* Describe the major ligaments of the uterus and ovaries.
* Discuss the physiology of the menstrual cycle and describe hormonal changes that occur during the various ovulatory and endometrial phases.
* Describe the development of the ovum and its passage from the ovary into the uterus.
* Define the function of the corpus luteum.
* Discuss the indications and contraindications for transabdominal and transvaginal scanning.
* Describe both the sonographic technique for evaluating the uterus and adnexal area and their sonographic appearances.
* Define uterine pathologies and describe their causes, clinical signs, and sonographic findings.
* Describe how to measure endometrial thickness and the normal measurements for the various menstrual phases.
* Explain sonohysterography and the indications for performing this procedure.
* Identify the role of Doppler in evaluating pathology in the pelvis.
* Differentiate between the types of intrauterine contraceptive devices and describe the sonographic appearances of each.
* Describe the effects of hormones on the ovarian cycle.
* Discuss the sonographic findings of the common cystic and complex ovarian masses, common solid masses, and ovarian neoplasms.
* Discuss the benign pelvic masses found in neonates and adolescent girls.
* Differentiate between mucinous and serous types of tumors.
* Explain the Doppler parameters used in ovarian torsion.
* List the causes and risk factors for pelvic inflammatory disease.
* Describe the sonographic findings of salpingitis, pyosalpinx, tubo-ovarian abscess, endometrioma, and adenomyosis.
* Define infertility and list its treatment options.
* State anatomic variations or pathologies that need to be defined when imaging an infertility patient.
* Discuss indications for obstetric sonography.
* Analyze the differences among standard, specialized, and limited obstetric sonography examinations.
* Describe the biologic effects of diagnostic medical ultrasound energy and related patient safety.
* Describe the steps of the first, second, and third trimester sonography protocols.
* Identify ethical issues in competence and referral in sonography exams.
* Identify ethical issues in disclosure of results in sonographic examinations and the confidentiality of findings.

**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 4404 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.

***What does this mean:***  I have allowed ‘printed material’ from the Web site to be available to the student.  This can present problems if not used properly.  Material from quizzes and tests should be used for your OWN study endeavors. Tests cannot be reviewed after they have been taken except in my presence. Failure to follow these instructions will result in a failure of the course.

***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.

2.  **Grading Procedure:**

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| **Assessment Method** | **Percentage Value** |
| Test #1 = Chapters 41-43 | 30% |
| Test #2 = Chapters 44-45 | 30% |
| Cumulative Final = Ch. 41-48 | 30% |
| Article Quiz | 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. 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 a 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/>