

IDAHO STATE UNIVERSITY
Department of Radiographic Science
R.S. 3311, Radiographic Methods II
Course Syllabus

Course Credit: 2 Credits
Time and Location: Monday and Wednesday 10:00 a.m. - 10:50 a.m.,
NURS Rm 120
Instructor: Trevor Ward, MSRS, RT(R)(CT)(MR)
Phone: 282-4112 or 282-4042 (Secretary)
Email: wardtrev@isu.edu

Overview:

Radiographic Methods II will provide the student with an understanding of basic radiographic anatomy and positioning of the lower limb, proximal femur and pelvic girdle, cervical, thoracic, and lumbar spine including the sacrum and coccyx. In addition, the course will cover the upper gastrointestinal system. Radiographic Methods II is a co-requisite with R.S. 341, Lab Practicum. The intent is to apply theory and principles during lab practicum sessions prior to actual clinical contact.

Required Text:

Bontrager, Kenneth L. & Lampignano, John P. (2018) Textbook of Radiographic Positioning and Related Anatomy (9th ed.) ISBN 978-0-323-39966-1

Recommended Text:

Bontrager, K.L. Workbook and Laboratory Manual Radiographic Positioning and Related Anatomy, Vol. I & II, Mosby Year Book, St. Louis.

Method of Presentation: Lecture, PowerPoint, Radiographs, Handouts

Code of Ethics: RS 3311 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 give the student the opportunity to identify radiographic positioning terms and to become familiar with the anatomy of the lower limb, femur, pelvic girdle, cervical, thoracic, and lumbar spine, and the gastrointestinal system. Basic theory, terminology, specific body positions, topical landmarks, and certain disease processes will be introduced. Additionally, students will expand their appreciation for the technical aspects of radiology and will further their understanding of the processes involved in critiquing radiographs from the vantage point of technical accuracy. This course will ultimately prepare the student for the corresponding laboratory experience.

The **Secretary's Commission on Achieving Necessary Skills (SCANS)**: This commission was appointed by the Secretary of Labor to determine the skills people need to succeed in the work place. The Commission's fundamental purpose is to encourage a high-performance economy

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characterized by high-skill, high-wage employment. The Commission's research found that effective job performance is what business calls *workplace know-how*. This know-how has two elements: competencies and a foundation. The SCANS report identifies five competencies and a three-part foundation of skills and personal qualities that lie at the heart of job performance. While the Commission's work ended with the report, its recommendations must be implemented; as the report stated, "...defining competencies and a foundation is not enough. Schools must teach them. Students must learn them."

<http://www.academicinnovations.com/report.html>

Description of SCANS competencies are as follows:

A Three Part Foundation	
1. Basic Skills	reads, writes, performs arithmetic and mathematical operations, listens and speaks
2. Thinking Skills	thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons
3. Personal Qualities	displays responsibility, self-esteem, sociability, self-management, and integrity and honesty
The Five Competencies	
4. Resources	identifies, organizes, plans and allocates resources
5. Interpersonal	works with others
6. Information	acquires and uses information
7. Systems	understands complex interrelationships
8. Technology	works with a variety of technologies

Each of these foundations and competencies are listed after the objective that meet the competency or skill set described above.

Course Learning Outcomes:

Chapter 6 Lower Limb

Upon completion of this chapter the student will be able to:	SCANS
On drawings and radiographs, identify specific anatomy of the foot, ankle, leg, knee, patella and femur.	1,2,3,4,,6,8
Describe specific joints and anatomical relationships of the foot, ankle, and knee.	1,2,4
Identify specific joints of the foot, ankle, leg and knee according to the correct classification and movement type.	1,2,4,
Describe the basic and special projections of the toes, foot, ankle, calcaneus, knee, patella, intercondylar fossa and femur to include CR placement and angulation, correct film size and placement, part positioning, technical factors, and evaluation criteria.	1,2,3,4,7,8

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Demonstrate in a lab setting all of the exams covered in this chapter.	1,2,5
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Chapter 7 Femur and Pelvic Girdle

Upon completion of this chapter the student will be able to:	SCANS
On drawings and radiographs, identify specific anatomy of the hips and pelvis.	1,2,4,6
Describe the location of the major landmarks of the pelvis and hip, and two methods of locating the femoral head and neck on an AP hip and pelvis.	1,2,6
Describe the structural and functional differences of the greater and lesser pelvis, and the structural difference between male and female pelvis.	1,2,4,6
Identify the correct classification and movement type for the joints of the pelvis.	1,2,6
Identify the correct pickup chambers when using AEC for hip and pelvis projections.	1,2,6
Determine if a pelvis or hip represents a true AP position based on the established evaluation criteria.	1,2,6
Describe and list those projections of the female pelvis and/or hips for which gonadal shielding should be used and how such shields should be placed.	1,2,6
Describe the basic projections, type and size of film holder, central ray location and anatomy best demonstrated for radiographic examinations of the hips, pelvis and sacroiliac joints.	1,2,6,7
Determine the gender of the patient from radiographs of the pelvis.	1,2,6
Demonstrate in a lab setting positioning for each of the exams covered in this chapter.	1,2,3,4,5,6,7,8

Chapter 8 Cervical and Thoracic Spine

Upon completion of this chapter the student will be able to:	SCANS
On drawings and radiographs identify specific anatomy of the vertebral column, vertebral curvatures, vertebra, joints in the vertebral column, cervical vertebrae, atlas (C1) and axis (C2), thoracic vertebrae, intervertebral foramina, and zygapophyseal joints.	1,2,4,6,7
Identify topographic landmarks of the cervical and thoracic spine.	1,2,6
Identify and describe the basic and special projections for the cervical spine including: AP, open mouth, obliques, lateral, trauma lateral and swimmers projections.	1,2,6,7
Identify and describe the basic and special projections for the thoracic spine including the AP, Lateral, and Oblique.	1,2,6
Demonstrate in lab setting positioning for each of the exams covered in this chapter.	1,2,3,4,5,6,7,8,
Determine when a hyperflexion and hyperextension study of the cervical spine should be performed.	1,2
Describe the Fuch, Judd, and Ottonello methods.	1,2,6

Chapter 9 Lumbar Spine

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Upon completion of this chapter the student will be able to:	SCANS
On drawings and radiographs identify specific anatomy of the following: lumbar vertebrae, sacrum, and coccyx.	1,2,6
Determine the classification of joints described in this chapter.	1,2,6
Identify topographic landmarks of the lumbar spine, sacrum, and coccyx.	1,2,6
Identify and describe the basic and special projections for the lumbar spine, sacrum, and coccyx.	1,2,6
Demonstrate in a lab setting positioning for each of the exams covered in this chapter.	1,2,3,4,5,6,7,8
Describe the Ferguson method as it pertains to Scoliosis.	1,2,4,6
Describe the importance of Right and Left bending radiographs in addition to hyperextension and hyperflexion laterals as they relate to spinal fusion imaging.	1,2,6

Chapter 12 Biliary Tract and Upper Gastrointestinal System

Upon completion of this chapter the student will be able to:	SCANS
On drawings and on radiographs identify specific anatomy as it relates to this chapter. This includes the following anatomy: esophagus, stomach, duodenum, body habitus, common radiographic procedures, and the oral cavity and pharynx.	1,2,5,6
Determine the contrast media employed for procedures covered in this chapter and identify the meaning of a "Double Contrast Study".	1,2,4,6
Describe how the student radiographer can protect him/herself with regards to radiation when performing the exams listed in this chapter.	1,2,4,5
Demonstrate in a lab setting positioning for each of the exams covered in this chapter.	1,2,3,4,5,6,7,8
Identify the basic and special projections for the esophagram and upper GI series.	1,2,6

All Chapters (See Lab Syllabi)

Concurrently with this course the student will:	SCANS
Participate in radiographic procedures in a lab setting consistent with R.S. 3311.	1,2,3,4,5,6,7,8

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

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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 RS 3311 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. Because the quizzes are open book, you should not obtain the answers from other students prior to taking the quizzes. This defeats the intended learning methodology. Also, DO NOT obtain material (quizzes and tests) from previous students who have taken this course. I will consider this cheating and could result in an automatic 'F' for the quiz and the course. You may print the quizzes at your discretion, but I DO NOT allow PRINTING of tests. Additionally 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.

Kahoot Test Review:

I do not allow taking pictures of the Kahoot Review. If I catch you taking a picture, you will be dismissed from the review.

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. Each day missed without an acceptable excuse (doctor's note) will have a penalty of an overall 1% deduction per day on your final grade. For example, if your final grade is a 91% at the end of the semester and you missed two class periods without an acceptable excuse (doctor's note) you will receive a final grade of 89%.

Online quizzes: There are no make-up quizzes for the Web Reviews or Bontragers quizzes, if you miss the deadline you will receive a 0.

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2. Grading Procedure:

Assessment Method	Percentage Value
Test #1 = Chapter 6	12%
Test #2 = Chapter 7	12%
Test #3 = Chapter 8	12%
Test #4 = Chapter 9	12%
Test #5 = Chapter 12	12%
Online and in-class quizzes	15%
Final Comprehensive Exam	25%

This grading Scale will be used:

+/- 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 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. There will be no makeup tests unless you have **PREARRANGED** this with me **PRIOR** to the test deadline. The only way you can make-up a test is if you provide me with an acceptable excuse at my discretion. 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

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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.

For Your Information: *Material from tests you have taken during the semester will be presented again on future tests. This means when you are taking test 2 you may find material from test 1 on the exam, etc. The material builds on itself and needs to be remembered.*

Cell phone policy: Cell phones should not be used in class. They should be placed in silent or vibrating mode or turned off. 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. Laptops may be used for subject related purposes such as taking notes. If you are caught doing anything that is not course related on your laptop, you will be dismissed from class.

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/>