Spring 1-2016

AHXR 240.01: Radiological Methods II

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MISSOULA COLLEGE UNIVERSITY OF MONTANA

DEPARTMENT OF RADIOLOGY TECHNOLOGY

COURSE SYLLABUS

COURSE NUMBER AND TITLE: AHXR 240 Radiological Methods II

DATE REVISED: Spring 2016

CLASS TIME: Tuesdays, 9:40 – 11:30 GH 9D

SEMESTER CREDITS: 3

PREREQUISITES: BIOH 201N and 202N Anatomy and Physiology, BIOH 211N and 212N Anatomy and Physiology, CAPP 120 Intro to Computers, M115 Linear and Probability, WRIT 121, SCN 175N, AHXR 100, AHXR 140

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Office Hours: By appointment

RELATIONSHIP TO PROGRAM: Students will learn the special nursing skills necessary to care for patients in an imaging department. Students will be challenged to use critical thinking to provide quality care for patients and when facing legal and ethical issues.

COURSE DESCRIPTION: Content of the class is designed to establish students with a knowledge base in quality patient care and to follow the code of ethics as written by the American Registry of Radiologic Technologists.

STUDENT PERFORMANCE OUTCOMES:

Upon completion of this course, the student will be able to:

1. *Explain perceptions of dying and death from the viewpoint of both patient and radiographer.*
2. *Describe the characteristics of each stage of grief.*
3. *Explain the age-specific considerations necessary when performing radiographic procedures.*
4. *Describe appropriate procedures for management of various types of trauma situations.*
5. *Describe the symptoms and medical interventions for a patient with a contrast agent reaction.*
6. *Explain the role of the radiographer in patient education.*
7. *Describe the patient preparation for contrast studies.*
8. *Identify specific types of tubes, lines, catheters and collection devices.*
9. *Outline the steps in the operation and maintenance of suction equipment.*
10. *Outline the steps in the operation and maintenance of oxygen equipment and demonstrate proper use.*
11. *Describe the steps in performing various mobile procedures.*
12. *Describe the special problems faced in performing procedures on a patient with a tracheotomy and specific tubes, drains and catheters.*
13. *Describe the procedure for producing diagnostic images in the surgical suite.*
14. *Explain the appropriate radiation protection required when performing mobile/surgical radiography.*
15. *Distinguish among the chemical, generic and trade names for drugs in general.*
16. *Describe pharmacokinetic and pharmacodynamic principles of drugs.*
17. *Explain the uses and impact of drug categories on the patient.*

18. *Define the categories of contrast agents and give specific examples for each category. Explain the pharmacology of contrast agents.*
19. *Describe methods and techniques for administering various types of contrast agents.*
20. *Identify and describe the routes of drug administration.*
21. *Demonstrate appropriate venipuncture technique. Differentiate between the two major sites of intravenous drug administration.*
22. *Identify, describe and document complications associated with venipuncture and appropriate actions to resolve these complications.*
23. *Discuss the various elements of initiating and discontinuing intravenous access.*
24. *Differentiate and document dose calculations for adult and pediatric patients.*
25. *Prepare for injection of contrast agents/intravenous medications using aseptic technique.*
26. *Explain the current legal status and professional liability issues of the radiographer's role in contrast and/or drug administration.*

STUDENT PERFORMANCE ASSESSMENT METHODS AND GRADING PROCEDURES:

Grading scale:
93-100 A
90-92 A-
87-89 B+
83-86 B
80-82 B-
79-70 C
69-60 D

Total grade will be determined by total points received on homework, tests, final paper and final exam.

Quizzes:	*20%*
Tests:	*20%*
Paper:	*30%*
Final Exam:	*30%*
	100%

Instructions for Semester Paper: The course is approximately 15 hours short of the total credit hours given. Your writing project for this class is to choose 3 different imaging modalities and spend 5 hours observing each modality outside of clinical time. You will need to make your own arrangements with the clinical instructor at each site to assist you with the modality of your choice. Write a summary of your experiences in each modality in the first 1 to 2 paragraphs and then choose one modality to research and expand upon. Do not use just the technologists' information, you need to research the modality online as well. The body of the paper explains your modality in detail and why you chose it. Include education necessary, job opportunities, and average wage. Your paper needs to be double spaced and 3 to 4 pages in length using 12pt font and one inch top and bottom margins. Please give me a hardcopy prior to your presentation. Papers will be due to me in class Tuesday April 26th. This paper is to include citations in the body and a reference/bibliography page in addition to the 3 to 4 pages.

Students will present these papers to the class during class on Tuesday May 3rd. The purpose of the presentation is to instruct fellow students, provide opportunity for discussion and to gain confidence in presenting ideas and information. It may also guide you in your future field of study.

Papers will be graded for content, interest, and attention to detail, correct grammar and punctuation. Presentations will represent 10% of the paper grade.

Note: Students must pass this course with a "B" (80%) or higher to continue in the Radiology Technology Program.

ATTENDANCE POLICY: All students are expected to come to class each day, on time and prepared by having read the required chapters. Class participation is expected and may impact grades that are borderline.

Eligible students with disabilities will receive appropriate accommodations in this course when requested in a timely way. Please speak with me after class or in my office. Please be prepared to provide a letter from your DSS Coordinator.

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or disciplinary sanction by the University.

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All students need to be familiar with the Student Conduct Code. The Code is available for review online at http://life.umt.edu/vpsa/student_conduct.php.

REQUIRED TEXT:

Patient Care in Radiography, Eighth Edition, Ehrlich and Coakes

AHXR 240 Radiological Methods II/Subject to change

	READING ASSIGNMENT	*WORK DUE*
January 26	*Introduction* *ARRT Ethics/ ASRT Radiology Practice Standards*	
February 2	*Chapter 18* *Surgical Asepsis*	*Debbie Fillmore, 2 groups,* *Wed 2/3 9:10-10:30* *Friday 2/5 9:10-10:30*
February 9	*Chapter 13 Medication Information*	*Kerry Haney*
February 16	*Chapter 14 Medication Administration*	
February 23	*IV Administration and Drug Administration*	*Maryellen Corella* *10:00 – 12:00*
March 1	*Chapter 15 Emergency Response*	*Quiz – Definitions from Chapters 18, 13,* *14 and 15*
March 8	*Chapter 16* *Dealing with acute situations*	
March 15	*Test* *Chapters 18, 13, 14, 15 and 16*	
March 22	*Chapter 17* *Preparation and examination of the GI tract*	
March 29	*Chapter 19* *Contrast media and special Radiographic Techniques*	*Quiz – Definitions from chapters 16, 17, and 19*

April 5	*SPRING BREAK*	*SPRING BREAK*
April 12	*Chapter 20 Bedside Radiography: Special conditions*	*Nick Arthur*
April 19	*Test* *Chapters 17, 19, 20*	
April 26	*Chapter 21* *Radiography in Surgery* *Chapter 22 Special Imaging Modalities*	*Quiz – Definitions from chapters 21 and 22* *Papers due*
May 3	*Paper Presentations*	
	Finals	

3/15/2016