

9-2013

# AHXR 100.01: Introduction to Diagnostic Imaging

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**MISSOULA COLLEGE - UNIVERSITY OF MONTANA  
DEPARTMENT OF RADIOLOGY TECHNOLOGY**

**COURSE SYLLABUS**

**COURSE NUMBER AND TITLE:** AHXR 100 Introduction to Diagnostic Imaging

**DATE REVISED:** Fall 2013

**CLASS TIME:** MW 8:30-10:00

**SEMESTER CREDITS:** 3

**PREREQUISITES:** SCN 201N Anatomy and Physiology, CAPP 120 Intro to Computers (or proof of competence), M 115 Probability and Linear Math or M121 College Algebra, SCN 175N Integrated Physical Science, WRIT 121 Technical Writing or WRIT 101 English Composition.

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**Office:** AD 07A  
**Office Hours:** By appointment

**RELATIONSHIP TO PROGRAM:** Students will be introduced to all aspects of the imaging profession. Course will include an introduction to the clinical sites and an understanding of the medical community as a whole. This course may vary from the days and times that are found on the last page to accommodate time for orientation to hospitals, CPR and patient transfer instruction from qualified instructors.

**COURSE DESCRIPTION:** Content of the course is designed to introduce students to the multifaceted medical imaging profession. Guest speakers will be provided to explain their discipline and explain how each discipline interacts with an imaging department.

**STUDENT PERFORMANCE OUTCOMES:**

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

1. Identify other health science professions that participate in the patient's total health care.
2. Describe the relationship of these health care workers to the integrated care of patients.
3. Identify various settings involved in the delivery of health care.
4. Discuss the reimbursement/payment options for health care services.
5. Discuss the role and value of a mission statement to the operation of an institution.
6. Discuss the relationship between institutional administrative personnel and radiology services.

7. Describe relationships and interdependencies of departments within a health care institution
8. Identify and discuss the responsibilities and relationships of all personnel in the radiology department
9. Explain patient services available in the radiology department.
10. Differentiate between programmatic and institutional accreditation
11. Define accreditation, credentialing, certification, licensure and regulations.
12. Explain the purposes of accreditation and certification and identify the agencies involved.
13. Discuss the general employment outlook for the graduate radiographer.
14. Discuss career advancement and opportunities for the radiographer.
15. Identify the benefits of continuing education as related to improved patient care and professional enhancement.
16. Explain select concepts embodied in the principles of patients' rights, the doctrine of informed (patient) consent and other issues related to patients' rights.
17. Explain the legal implications of professional liability, malpractice, professional negligence and other legal doctrines applicable to professional practice.
18. Describe the importance of accurate, complete, correct methods of documentation as a legal/ethical imperative.
19. Explain the legal terms, principles, doctrines and laws specific to the radiologic sciences.
20. Demonstrate competency in basic life support (BLS).
21. Outline the conditions necessary for a valid malpractice claim.
22. Describe institutional and professional liability protection typically available to the radiographer.
23. Describe the components and implications of informed consent.
24. Identify standards for disclosure relative to informed consent.
25. Describe how consent forms are used relative to specific radiographic procedures.
26. Identify the four sources of law to include statutory, administrative, common and constitutional.
27. Differentiate between civil and criminal liability.
28. Define tort and explain the differences between intentional and unintentional torts.

## **STUDENT PERFORMANCE ASSESSMENT METHODS AND GRADING PROCEDURES:**

### **Grading scale:**

**100-90 A**

**89-80 B**

**79-70 C**

**69-60 D**

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

Quizzes: 30%

Paper: 40%

Final Exam: 30%

100%

## **FINAL PROJECT/PAPER:**

### **FINAL PROJECT:**

The art of radiology comes in many forms and the technology is ever changing. During the semester you are to research the field of imaging on a weekly basis. You can use the internet, CNN or any other news source. You may also use current newspapers, magazines and journals. Do not use books as sources because the information is usually dated even prior to publishing.

In class one day per week, students will be asked to share what they have researched by reading an article in class. 1 extra credit point will be given to each article presented (limit 1 per week). The purpose of this is to help you identify and track current issues in all imaging modalities and new technologies. For the final project, you will be required to hand in a portfolio containing a 2 to 3 page summary paper along with copies of your articles by Monday, November 25, 2013.

The file is to contain the articles that you found in current publications and on-line throughout the semester. The file can have copies of articles that you may or may not have presented however, it must contain at least 15 original articles, (1 per week) gathered during the semester. The articles should be neatly mounted or photocopied and labeled with the date and source from where they were retrieved. Your article copies must show that you have done this assignment in a non-last minute basis. Please be sure to include the search date on your articles.

When you use internet sources, you must cite them just as you would a book or a magazine. The form should be: **Internet ( the URL site, Date retrieved)**. The library has a very sophisticated system for computer search of material. The reference librarian will be very happy to help you with the search.

**FORMAT of paper:** The paper must have a cover page with your name and date which is not counted in the 2 to 3 pages of your paper. You do not need to do an abstract. The paper must be done on the computer, double-spaced with 1 inch margins on all sides. It must be free of spelling errors, punctuation problems and grammatical mistakes. I expect this to be academic writing (APA style). If you are unclear about this please refer to the Little Brown Book that can be found in the library or look on the Mansfield Library website for more information.

This paper is really an analysis of the information you found throughout the semester and the reaction you have to it. You are basically writing a summary of what you learned from the articles that you found. As such, you may use first person. Your paper should consist of an introductory paragraph that explains the project, then 2 or 3 paragraphs that narrow down one to three articles from that you found particularly interesting, concluding with a description of what you learned from this exercise.

Again, your articles must be handed in with your paper as part of the portfolio. All articles must have the date you printed them, generated by the search engine, on them. This is to verify that you did not wait until the last minute to do your research. The project is due at no later than class time on Monday, November 25<sup>th</sup> and can be handed in earlier if you would like. Late portfolios will not receive credit. This project is a way of getting you to discover the wonders of the ever evolving technologies in radiology and health care in general.

Students will present their paper in class during class on Monday, December 2<sup>nd</sup> and Wednesday, December 4<sup>th</sup>.

**Note: Students must pass this course with a “B” (80%) in order to continue with the Radiology Technology Program the next semester.**

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

**ACADEMIC INTEGRITY:**

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by The University. 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](http://life.umt.edu/vpsa/student_conduct.php).

**DISABILITY ACCOMODATION:**

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. For more information, visit the Disabilities Services website at <http://www.umt.edu/dss/> or call 406-243-2243 (voice/text)

**Note: Instructor reserves the right to modify syllabi and assignments as needed based on faculty, student, and/or environmental circumstances.**

**REQUIRED TEXT:** *Patient Care in Radiography with an Introduction to Medical Imaging*, Eighth Edition, Ruth Ann Ehrlich and Dawn M. Coakes

## AHXR 100 Introduction to Diagnostic Imaging

DATE	READING ASSIGNMENT	WORK DUE
August 26 August 28	Introduction Samantha Hines	Student Handbook Librarian
September 2 September 4	Labor Day Chapter 1	No School
September 9 September 11	Chapter 2 Chapter 3	
September 16 September 17	Chapters 4 DVD Health Teams	
September 23 September 26	Guest Speakers <b>Quiz 1</b>	Jody Starkel <b>Chapters 1-4</b>
September 30 October 4	Chapter 5 Chapter 6	
October 8 October 11	Chapter 7 Guest Speakers	St. Pats Technologists
October 16 October 18	Chapter 8 Infection Control Video	
October 23 October 25	Chapter 9 Guest Speaker	Mike Stewart
October 28 October 30	Chapter 10 <b>Quiz 2</b>	<b>Chapters 5-10</b>
November 4 November 6	Chapter 11 Vital Signs Video	
November 11 November 13	Chapter 12 Ergonomics	Tim Nielsen.
November 18 November 20	Practice Vital Signs Class off- CPR	Come prepared to pay the CPR fee
November 25 November 27	Moore Movie Thanksgiving Travel Day	Papers Due
December 2 & 4 December 4	Paper presentations <b>Review</b>	
December 9 -13	Finals	

7/18/2014