

**Middlesex Community College
School of Radiologic Technology
Syllabus**

- I. Course Title:** RAD*223 Pathology for Medical Imaging (CRN 3410)
- II. Credits:** 2
- III. Prerequisites:** RAD*240, RAD* 200
- IV. Semester:** Fall 2018
- V. Instructor:** Donna J. Crum, MS, RT (R) (CT)
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- VI. Course Description:** This course provides an overview of pathological conditions that are demonstrated by diagnostic imaging. Lecture material will include the cause and treatment of the disease process. Pediatric radiology is also presented. A research paper and presentation are required. Prerequisites: RAD* 240, RAD* 200.
- VII. Course Text:** *Introduction to Radiologic Sciences and Patient Care, 6th Edition, Adler and Carlton, Elsevier 2016.*
Textbook of Radiographic Positioning and Related Anatomy, 9th Edition, Bontrager, Elsevier 2016.
- VIII. Course Objectives:** Upon completion of this course, the student will be able to:
1. Discuss and explain special considerations for pediatric and geriatric population.
 2. Discuss and explain medication administration and contrast media utilized in imaging.
 3. Discuss and explain pathology related to circulatory, skeletal, respiratory, gastrointestinal, urinary and reproductive systems.
 4. Discuss and explain special imaging modalities.
 5. Demonstrate information literacy skills to access, evaluate, and use resources to stay current in the field of radiography.
 6. Develop a vocabulary of appropriate terminology to effectively communicate information related to radiography.
- IX. Course Goals:**
1. Provide students the opportunity to investigate and understand special considerations for pediatric and geriatric patients.
 2. Provide student the opportunity to study medication administration utilized in imaging.
 3. Provide the students the opportunity to understand the pathological conditions of multiple body systems.
 4. Provide the students the opportunity to observe special imaging modalities.
 5. Provide the students the opportunity to research and communicate using information literacy skills.
- X. General Unit Outline:**
- A. Medication Administration
1. medication reconciliation
 2. premedication
 3. contraindications

- B. Contrast Media
 - 1. types
 - 2. properties
 - 3. appropriate types for specific examinations
- C. Body Systems (Circulatory, Reproductive, Gastrointestinal, Urinary, Skeletal, and Respiratory)
 - 1. anatomy
 - 2. pathology
 - 3. imaging modalities
- D. Computerized Tomography
 - 1. overview of CT physics
 - 2. overview of CT image production
 - 3. beginning sectional anatomy

XI. Course Presentation: This course consists of the following components:

1. **Hybrid: Guest Lecturers and online course work.**
2. **Exams:** Tests account for **30%** of the total course grade.
3. **Homework and Miscellaneous Assignments:** Homework and other miscellaneous assignments (Guest Lecture reports) should be completed and turned in by the established deadline date on the schedule. The Homework and miscellaneous assignments account for **40%** of the total course grade.
4. **Research Paper:** Research paper on a pathological condition that can be identified and/or treated using radiographic imaging. A rubric specific to the research paper will be distributed to the students. Research paper accounts for **25%** of the total course grade.
5. **Final Examination:** A comprehensive final covering all topics addressed during the semester. The final examination will account for **5%** of the total course grade.

XII. Grade Scale :

Grading System for all Radiologic Technology Courses:

A = 94 - 100	B- = 81- 84	D+ = 69 -72
A- = 91 - 93	C+ = 79 - 80	D = 64-68
B+ = 88 - 90	C = 77- 78	D- = 60 - 63
B = 85 -87	C- = 73-76	F = 59 and below

***** A grade of (C) or above must be maintained in order to progress in the Program*****

XIII. Studying:

This course may be challenging for some students. Some materials will be familiar but much of the material will seem very foreign. The volume of information is great, building on itself as each week passes. If you fall behind it will be very difficult to catch up. Schedule your time to allow yourself to adequately review the textbook information.

- Study in a quiet place with no distractions (food, people, cell phone, etc...)
- Rewrite your notes not to memorize words but to memorize concepts. Your text is one of many texts available with same information but the wording may be different. The national exam is built upon concepts not how a particular author writes.
- Read your information out loud to yourself. Using more than one sense increases your retention.
- Join/form a study group to practice in the laboratory.

ADDITIONAL COLLEGE INFORMATION:

IMPORTANT COLLEGE POLICIES!! PLEASE READ CAREFULLY!

For information about the college's policies and procedures regarding academic honesty, accessibility/disability services, attendance, audio-recording in the classroom, grade appeals,

religious accommodations, weather and emergency closings, and more, please go to the following website: www.mxcc.edu/catalog/syllabus-policies.

CELL PHONE POLICY: *Whether in clinical or class, personal cell phones should be placed on silent mode and put away so that professional activities are not disrupted. Students are not permitted to “text” during class or clinic. Non-compliance with this policy will result in Administrative Action up to and including dismissal.

RAD* 223 Radiographic Pathology Course Topic Schedule

Week	Study Topic(s)	Assignment(s)
1. 8/28-30	Pharmacology	Chapter 21, Carlton and Adler
2. 9/4-6	Contrast Media	Chapter 23, Carlton and Adler
3. 9/11-13	Pathologic Process	Hand-outs
4. 9/18-20	Skeletal System	Chap 4-11 Bontrager pgs. on assignments
5. 9/25-27	TEST(9/27/2018) Start Respiratory System	Chap 2 Bontrager pgs. on assignments
6. 10/2-4	Respiratory System	
7. 10/9-11	Gastrointestinal and Hepatobiliary Systems	Chap 12 Bontrager pgs on assignments
8. 10/16-18	Urinary System	Chap 3 & 14 Bontrager pgs on assignments
9. 10/23-25	TEST(10/23/2018) Start Reproductive and Endocrine Systems	Hand-outs
10. 10/30-11/1	Circulatory System	Hand-outs
11. 11/6 11/8	Nervous System RAD OLYMPICS/OPEN HOUSE	Hand-outs
12. 11/13-15	TEST (11/15/2018)	
13. 11/20	Computed Tomography and Sectional Anatomy	Chap 18 Bontrager
14. 11/27-29	RESEARCH PAPER DUE 11:59 pm 12/01/2018	
15. 12/5	TEST (12/6/2018)	
16. 12/14	FINAL EXAM	

*SUBJECT TO CHANGE WITH NOTIFICATION

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GUEST SPEAKER SCHEDULE

	NAME AND TOPIC	DATE/TIME
1.	Chris Steelman - Hoffman Heart and Vascular Institute - Cardiac Interventional and Echocardiography	11:00 am 9/11/2018
2.	Sandra Phillips - MH Radiology Department Administrator - Management	11:00 am 9/13/2018

3.	Donna Spencer - MH - OPC - Bone Density	11:00 am 9/25/2018
4.	Trish Hatin - OPC Manager - Mammography	11:00 am 10/09/2018
5.	Lisa Catala - MH RIS/PACS Administrator - RIS/PACS	11:00 am 10/18/2018
6.	Della Strickland - SMC Manager - MRI	11:00 am 10/25/2018
7.	Wendy Violissi - MH IR Supervisor	11:00 am 10/30/2018
8.	Nora Urrichio - MMC Radiation Therapy Program	1:00 pm at MMC 11/1/2018
9.	Carissa Carta - MH - NM Supervisor	11:00 am 11/13/2018
10.	Bridget Hill - MH CT Supervisor	11:00am 11/20/2018
11.	Melanie Caruso, MH Sonography Supervisor - Sonography	11:00am 11/27/2018