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Radiologic Technology Syllabi Fall 2020

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2020

RADT 270 Principles of Radiographic Exposure II

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College of Professional Sciences
PRINCIPLES OF RADIOGRAPHIC EXPOSURE III
RADT 270 / 2 cr. Hours

Fall 2020

Instructor: Donna J. Endicott, M.Ed., R.T. (R), 188e Cohen Hall
(513) 745-3358 office or (513) 310-4086 cell or Endicott@xavier.edu

Textbook: “Principles of Radiographic Imaging” by Carlton and Adler
Merrill’s Atlas of “Radiographic Positioning and Procedures” by Frank
“Radiographic Anatomy and Procedures” Workbooks by Frank
Note: NO used workbooks! Exception –if NO handwriting in the workbook.

Office Hours: Thursday, 11:30 to 1:00 or see me right after class to schedule a time or email me a request to set up a time. Remember my office is located in the Cohen Center so make sure you understand where to meet with me.

Mission Statement

The mission of the Radiologic Technology Program is to prepare the student to enter diagnostic imaging as an entry-level radiographer. Consistent with the Jesuit tradition of rigor and compassion based on the highest ethical standards, graduates of the Xavier University Radiologic Technology Program have the necessary skills to integrate theoretical knowledge and essential clinical skills to perform radiologic procedures and provide appropriate patient care.

GOAL: To provide students with the theoretical basics for formulating radiographic technical factors, designing technique charts, calculation of heat units, anode cooling problems and exposure conversion problems.

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

1. Identify the 3 different types of technique charts. (ck)
2. Construct a technique chart using the body proportional chart. (cs)
3. Adapt techniques as needed for the different body habitus and pathological conditions. (ca)
4. Identify the components needed for the automatic exposure control and how to select the appropriate sensors for an examination. (ck) (ce)
5. Adapt technical factors for exposure conversion for changes in radiographic image quality and equipment.
6. Formulate technical factors, which will demonstrate the greatest or least amount of density, contrast, detail or distortion on radiographic image.

7. Calculate the heat units for a given technique on various generators. (ca)
8. Use a anode cooling chart to determine the time it would take a x-ray tube to cool down to a given level.(ck)
9. Identify safe and unsafe techniques using a tube rating chart. (ck)
10. Formulate new technical factors for changes in screen speeds, film speed, grid ratio, distances, KVP, MA, time stations.

REQUIREMENTS: Class participation (50 points) Test (5) (500 points)
 assignments (50 points) Final Exam (200 points)

Grading: Students may earn of total of 800 points.

Calculating your grade. Students may earn of total of 800 points in this course. To calculate your grade at any time during this course you can add together all of your “earned” points and then add together your “required” points. Divide the number of your earned points by the number of required points.

Example: Earned points you received:	Course Assigned points:
45 points for participation	50
80 first test	100
<u>92</u> second test	<u>100</u>
Totals 217	250
217earned points/250 assigned points = 86.8 or B-	

Didactic Grading Scale:

A 95 – 100	A- 93 - 94	B+ 91 - 92	B 88 – 90	B- 86 - 87
C+ 84 - 85	C 80 - 83	C- 78 - 79	D 70 - 77	F 0 - 69

Program Requirement: You must maintain a "C-" or better in this course in order to continue to the next semester.

Classroom Policies:

Classroom participation: All students will begin the semester with 50 points for participation. It is up to you to keep your points!

During this time of COVID 19 guidelines, the program is following the university’s guidelines. All classrooms on campus are following the social distancing guideline of maintaining desks 6 feet apart. All students are expected to wear a facial mask while in the building including the classrooms. If you are NOT feeling well, stay at home and you can contact the instructor to cover the material missed if you need help or you can Zoom into the class during the regular class time.

Attendance and participation in class is expected unless you are sick. *Good participation* in class includes such activities as being on time for class, asking questions, sharing with classmates what you have observed at the clinical sites, articles from newspapers and answering questions. Class time is your time to learn so make sure you make the most of the learning experience. This includes the “Zoom-In” students. When students are assigned to “Zoom-In”, you are expected to log into class during regular class time. You will need to show your face when you are working online. Examples of *poor participation* includes falling asleep, using your cell phone during class, working on your homework in class, talking to others while lecture is going on or while other students are talking/asking questions to the classmates/instructor, and being rude to fellow classmates. Not participating in class while logging into class while on Zoom.

If you have questions about your participation abilities – ask me! If I notice something you are doing to take away from class discussions, I will talk to you. Depending on your continued actions, classroom participation points will be subtracted which will be – 5 points for each occurrence.

Class Attendance is very important! If you do not attend class, you are not participating in class time. For every absence (5 points), tardiness (2 points) or leaving early (2 points) points will be subtracted from your participation grade. If a student misses the third class, I will drop your final course grade one whole letter grade.

Plagiarism and cheating are not acceptable at any time or on any assignment. The following are some examples of plagiarism and/or cheating: copying sentences or phrases from any print or internet source, copying from others tests or assignments, using crib sheets, using the work of other students and passing it on as your own. In accordance with Xavier’s Academic Honesty policy, any infraction at all will cause at least a grade of “0” on the test and will likely result in an F for the course, at my discretion and in consultation with the dean. If you have any questions about what is an inappropriate behavior – ask me before you do it!

Missed Tests: If you know you will miss a test for any reason, please let me know as soon as possible and we will arrange to reschedule the test. Most likely, you will need to take the test before the next scheduled class time. All make-up tests will be given in my office – Cohen 188e.

Work books: You are required to complete all of the questions throughout workbook of the assigned chapters. You must turn the workbook in on the due date listed below in order to receive full credit for that assignment. All student papers and homework assignments are to be directly handed to the course instructor. All workbooks must be a clean copy! This means NO previous written marks in the entire workbook! You will be given points toward your course grade for completing the assigned chapters which must reflect your work and not the previous workbook owner. (See late assignments)
(See late assignments)

Late assignments (assigned chapters in the workbook- see dates below) must be turned in on the date they are due to count for all assigned points. If an assignment is turned in the next scheduled class, you will receive only half of the assigned points. After that – no points will be given. All student papers and homework assignments are to be directly handed to the course instructor.

Cell phones will be turned off during class time. If you have a cell phone or another electronic device out during a test I will view this as cheating. I will collect your test and you will receive an “F” for the test. If your phone rings during a class, I reserve the right to answer your phone. In case of emergencies, see me before class starts.

Learning Assistance Center

The Office of Academic Support offers tutoring, Supplemental Instruction (SI), and study groups. For information about these services, contact Stephanie Daniels at 745-3214 or danielss3@xavier.edu. The OAS is located on the fifth floor of the Conaton Learning Commons, Suite 514.

Students with Disabilities

Any student who feels he/she may need an accommodation based on the impact of a documented disability should notify the course instructor and contact Cassandra Jones in the Office of Disability Services at 745-3280 or e-mail jonesc20@xavier.edu to coordinate reasonable accommodations.

Mental Health Resources

Undergraduate

Life at college can get very complicated. Students sometimes feel overwhelmed, lost, experience anxiety or depression, struggle with relationship difficulties or diminished self-esteem. However, many of these issues can be effectively addressed with a little help. McGrath Counseling Services (located in the Health United Building in the Wellness Center 1st floor) and the Psychological Services Center (located at the Sycamore House) help students cope with difficult emotions and life stressors. McGrath Counseling Services and the Psychological Services Center are staffed by therapists, counselors, and other staff who are attuned to the needs of college students. The services are FREE and completely confidential. Find out more at <http://www.xavier.edu/health-wellness/counseling/index.cfm> and <http://www.xavier.edu/psychologicalservices/welcome.cfm> or by calling (513) 745-3022 for McGrath or (513) 745-3531 for Psychological Services Center.

PRINCIPLES OF RADIOGRAPHIC EXPOSURE III 2020FALL SEMESTER

Aug.	18	Introduction to the course, Review Density
	20	Review Contrast
	25	Radiographic Detail
	27	Radiographic Distortion
Sept.	01	ranking problems
	03	continue
	08	analysis images
	10	TEST

	15	ACADEMIC HOLIDAY _ NO CLASSES
	17	Practical Conversion Problems
	22	continue
	24	Exposure Conversion Problems
Oct.	29	continue
	01	TEST
	06	Automatic Exposure Control
	08	automatic exposure control
	13	Macro-Radiography (Magnification Techniques)
	15	magnification continue
	20	TEST
	21 Wed.	ACADEMIC HOLIDAY – NO Clinical
	22	Anode Cooling Charts
	27	Anode Cooling Charts
	29	Anode Tube Failures and Tube Rating Charts
Nov.	03	REMOTE – ALL CLASSES
	05	Tube Rating Charts
	10	TEST
	12	Technique Charts
	17	Technique Charts
	19	Deviations from Standard Techniques
	24	Patient considerations in Techniques
	25-29	<i>Thanksgiving Break – No Class or clinical Nov. 27 - 29</i>
Nov. 30-Dec. 4		FINAL WEEK - REMOTE
		Wed., Dec. 02 at 8:30 am to 10:20 pm

NOTE: This schedule is subject to change by the discretion of the instructor.