RADT 60 Course Outline as of Fall 2000

CATALOG INFORMATION

Dept and Nbr: RADT 60 Title: INTRO TO MEDICAL IMAGING
Full Title: Introduction to Medical Imaging
Last Reviewed: 4/24/2023

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	17.5	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
Introduction and survey of medical imaging, its technologies, health care providers, and radiologic and health care practices as they relate to patients of diverse backgrounds. Open to all students.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100B or ENGL 100.

Limits on Enrollment:

Schedule of Classes Information:
Description: Introduction and survey of the field of Medical Imaging, its Technologies, health care providers, radiologic and health care practices as they relate to patients of diverse backgrounds. Open to all students. (Grade Only)
Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100B or ENGL 100.
Limits on Enrollment:

Transfer Credit: CSU;
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**			Effective:	Inactive:
CSU GE:	**Transfer Area**			Effective:	Inactive:
IGETC:	**Transfer Area**			Effective:	Inactive:
CSU Transfer:	Transferable	Effective:	Fall 1981	Inactive:	
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:
Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:
At completion of this course, the student will be able to:
1. Describe the general use of X-ray radiation for medical purposes.
2. Describe the personal traits and characteristics necessary for the radiologic technologist in the multicultural health care setting.
3. List the major equipment and accessories used in a Radiology department and its darkroom.
4. Define and discuss professionalism and ethics as applied to the radiologic technologist in dealing with patients of diverse backgrounds.
5. Define the process by which x-ray radiation is produced.
6. Describe the basic rules of radiation protection.
7. Describe the function of the radiographic tube and its components.
8. Describe basic interactions of radiation with matter
9. List physiologic and psychological changes in geriatric patient.
10. Describe cultural differences and considerations in co-worker and patient relationships.
11. Describe the values, technological themes, scientific methods, and history of Radiology and identify realistic career objectives related to any specialty in medical imaging.
12. Perform research specific to medial imaging, using all available resources in the college library, and use AMA citation style.

Topics and Scope:

1. History of Radiology and its scientists.
   A. Discovery of vacuum tubes and X-Ray radiation.
   B. Major developments in the field of Radiology.
2. Principles of X-Ray production and its medical use.
   A. Primary and secondary circuitry.

B. X-Ray tube construction.
C. X-Ray use in medicine.
D. Basic radiation protection.

3. Principles of Equipment used in Radiology and its darkroom.
   A. Demonstration of equipment.
   B. Tour of hospital departments.
4. Hospital, Department, National, State, and Professional Organizations.
   A. Organizational charts.
   B. Relationship of hierarchy and a radiologic technologist.
5. Professionalism and Medico-Legal Ethics.
   A. American Registry of Radiologic Technologists Code of Ethics.
   B. Patient Bills of Rights.
6. Students' oral presentations on one or more topics of the course.
7. Gerontology in Radiology
8. Diversity in Radiology
9. Orientation to the values, technology themes, scientific methods, and history of Radiology and identification of realistic career objectives related to any specialty in medical imaging.
10. Introduction to medical imaging research tools, including seminal books, Radiology periodicals, major indexing sources, professional organizations, standard reference tools, medical specific tools, and major web sites.

Assignment:

1. Reading of chapters prior to lectures/discussions.
2. Completion of summary papers to depict a subject in Medical Imaging from current literature.
3. Delivery of a 15-minute oral report on a major issue related to Radiology, or relation of patient/staff with diverse backgrounds.
4. Completion of an one-page report on the department tour.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written homework, Reading reports, Term papers, 4 summary papers, essay	Writing 10 - 35%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None	Problem solving 0 - 0%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Performance exams, Oral Report	Skill Demonstrations 5 - 10%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Matching items, 100-question final examination	Exams 40 - 70%

Other: Includes any assessment tools that do not logically fit into the above categories.

Attendance	Other Category 5 - 10%

Representative Textbooks and Materials:
- INTRODUCTION TO RADIOLOGIC TECHNOLOGY, 4th edition, 1999