

COURSE PREFIX/NUMBER: RAD 230
COURSE TITLE: RADIOGRAPHIC PROCEDURES III
LECTURE HOURS/WK: 2.0
LAB HOURS/WK: 3.0
CREDIT HOURS: 3.0

[Distance Learning Attendance/VA Statement](#)
[Textbook Information](#)

COURSE DESCRIPTION

This course provides instruction in special radiographic procedures.

COURSE COMPETENCIES

Upon successful completion of this course, the student should be able to complete the following:

Module I - Trauma Radiography

1. Discuss potential problems and solutions related to mobile (trauma) radiographic positioning.
2. Demonstrate patient management and critical thinking during trauma scenarios.
3. Formulate optional imaging protocols required during trauma.
4. Define and differentiate types of shock.
5. Evaluate trauma case studies.
6. Determine mechanisms of traumatic injuries and pathological conditions related to imaging requirements from case studies.

Module II - Nervous System & Miscellaneous Fluoroscopic gram studies

1. Identify anatomical structures of the brain and central nervous system.
2. Describe the radiologic procedures performed on the nervous system, their related equipment and supplies, contrast media, indications, contraindications and pathology demonstrated to include: diskography, lumbar myelography, and complete myelography.
3. Describe the contrast medium utilized for each study in terms of type, administration method, and quantity.
4. Describe patient preparation for various special studies; given various special studies, identify special structures visualized and functions demonstrated.
5. Describe supplies used in various special studies performed on part of various systems (ie: nervous system, reproductive system, miscellaneous "grams").

Module III - Basic Principles of Computed Tomography

1. Define and differentiate CT generations.
2. Define Hounsfield Units and its use in computed tomography.
3. Describe data acquisition method.
4. Identify components of CT system, operations, and processes (DAS, ADC, attenuation, and selectable scan factors)
5. Define terminology related to CT image appearance

6. Differentiate post processing functions
7. Discuss radiation protection methods related to CT for patient and radiographer.

Module IV - Reproductive System

1. Identify anatomical structures of the male and female reproductive system and their development.
2. Define pathologies associated with the reproductive system.
3. Describe imaging procedures related to the genito-urinary system.
4. Understand the basic principles of mammography.
5. Define 10-day rule.

Module V - Pediatric & Geriatric Radiography

1. Define developmental stages of aging.
2. Determine care requirements of pediatric and geriatric patients.
3. Describe variations in communication related to development and aging.
4. Demonstrate understanding of physical limitations related to age.
5. Define anatomical variations related to age and disease processes (pediatric & geriatric).
6. Discuss Bone Densitometry.
7. Define pathological conditions of specific age groups.
8. Demonstrate immobilization techniques related to age-induced conditions.

METHODS OF INSTRUCTION

This course is offered in an “enhanced” format. This means that the course is similar to an internet course, but there will be some “on-campus” activities that are required. A CD will accompany the course syllabus and required text(s) that you purchase at the York Tech Bookstore. The CD provides lecture materials to supplement your reading assignments. Lab exercises will be performed in the Radiology Lab on Campus. Quizzes, assignments, course calendar, e-mail, and bulletin board messages are accessed via the internet.

Principles will be introduced through lecture, PowerPoint presentations, viewing videotapes, computer-based training, lab demonstrations, and the completion of a student project. Additional methods designed for remediation or enrichment will be individually tailored as needed.

COURSE REQUIREMENTS

All students are responsible for attaining competencies through the completion of the following course requirements:

- attending class (See *YTC Handbook and Catalog* for attendance policy)
- reading all assigned materials as listed in syllabus
- participating in all class activities and tests as scheduled and as listed in syllabus
- completion of CAI Lab assignments
- completion of all assignments (case studies, workbook)
- in-class project presentation (and associated assignments for project)
- completion of course final exam

ACADEMIC INTEGRITY

The policies stated in the *YTC Handbook and Catalog* and *Radiologic Technology Student Manual* will be enforced. Any student violating the policy will be subject to academic discipline as stated.

ATTENDANCE POLICY

The attendance policy stated in the *YTC Handbook and Catalog* and *Radiologic Technology Student Manual* will be enforced.

GRADING PROCEDURES

Five unit tests will be given as outlined in this syllabus. Any pop quizzes may be unannounced and will be averaged together at the end of the semester to be given the weight of one unit test. Pop quizzes may not be made up. A minimum grade of 80% is required on all unit tests to pass the unit test. All students are required to take the final exam at the end of the course. However, if a student makes a grade lower than 80% on a single test only and still maintains an A average at the end of the semester or a student who did not receive a grade of 80% or lower on any test during the semester, the student will not be required to use the comprehensive final exam grade as part of their average if the exam grade is lower. Any student that requires more than one make-up test will be required to use the comprehensive final exam grade regardless of their status for exemption. The final exam will count as 1/3 of the final grade and the unit tests will counts as 2/3 of the final grade. As with all RAD courses, the grading scale is as follows:

GRADE	SCORE
A	93-100
B	86-92
C	80-85
D	70-79
F	Below 70

See *Student Manual* for additional information.

TESTS

All tests will be administered in the Assessment Center in B Building. Test deadlines for each unit test will be posted on the online calendar. A picture ID is required at the time of the test – NO EXCEPTIONS.

MAKE-UP TESTS

The student must notify the instructor that he/she wishes to take the test. If the student does not take the test within one week from the date of the assigned test, the test will be closed

and a grade of "0" will be recorded. Tests must be made up within **one week** of the original test date except in extenuating circumstances (at the discretion of the instructor). Students making up more than one test per semester will lose exemption from the final exam grade. A student's abuse of the privilege to make up exams may result in the student's withdrawal from the course.

TOPIC/CONTENT OUTLINE

See the attached course syllabus addendum.

PERFORMANCE OBJECTIVES

Performance objectives for each topic (unit) are included in the syllabus addendum.

ENTRY-LEVEL SKILLS

A student entering this course must be currently enrolled in the Radiologic Technology Program.

PREREQUISITES

RAD 102, RAD 101, RAD 152, BIO 210, BIO 211, RAD 110, RAD 130, RAD 165, RAD 105, RAD 136, RAD 115, RAD 121, RAD 175.

CO-REQUISITES

RAD 256

Disabilities Statement: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.