Radiography (RAD)

Courses

RAD-100. Introduction to Radiography. 2 Credits.
LECT 30 hrs
Introduction to Radiography is the study of the fundamental elements of the health system, patient care and the profession of Radiography. The concepts of ethics, law, medical asepsis, vital signs, communicable disease and medical emergencies are presented in this course.
Prerequisites: Admission to Professional Phase and permission of department chair
Corequisites: RAD-104, RAD-107 and MAT-140
Additional Fees: Course fee applies.

RAD-104. Principles of Radiography I. 4 Credits.
LECT 45 hrs LAB 45 hrs
This course is designed to provide students with the necessary theory, concepts and hands-on experience in performing specific diagnostic procedures. Patient positioning, equipment manipulation, radiation protection techniques, appropriate patient care techniques and critique of radiographic images are presented in this course. Body areas covered include chest, abdomen, upper and lower extremities.
Prerequisites: Admission to Professional Phase; Department permission
Corequisites: RAD-100, RAD-107 and MAT-140
Additional Fees: Course fee applies.

RAD-107. Radiography Clinical Practice I. 1 Credit.
CLIN 120 hrs
This course provides students with an opportunity to apply concepts learned in Radiography I and Introduction to Radiography. Some of the tasks include operating equipment appropriately, applying basic patient care and positioning the patient accurately.
Prerequisites: Admission to Professional Phase - permission of department chair
Corequisites: RAD-100, RAD-104 and MAT-140
Additional Fees: Course fee applies.

RAD-110. Radiation Biology and Physics. 3 Credits.
LECT 45 hrs
The study of physics and electronics involved in the production, use and control of the various electromagnetic energies used in medical and diagnostic applications.
Prerequisites: RAD-100, RAD-104, RAD-107, MAT-140
Corequisites: RAD-114 and RAD-117.

RAD-114. Principles of Radiography II. 4 Credits.
LECT 45 hrs LAB 45 hrs
Principles of Radiography II reinforces basic concepts presented in Principles of Radiography I. Body areas covered include the hip, pelvis, bony thorax, entire spine, upper and lower GI tract, biliary system and the urinary system.
Prerequisites: RAD-100, RAD-104, RAD-107, MAT-140
Corequisites: BIO-102, RAD-110 and RAD-117
Additional Fees: Course fee applies.

RAD-117. Radiography Clinical Practice II. 2 Credits.
CLIN 240 hrs
Students are allowed the opportunity to put into practice the course material introduced in this and previous semesters. Opportunities for more responsibility and independence with previously learned procedures are provided. Students demonstrate competency of procedures learned in Radiography I. Also included is film critique in which the student evaluates radiographs.
Prerequisites: RAD-100, RAD-104, RAD-107, MAT-140
Corequisites: RAD-110 and RAD-114
Additional Fees: Course fee applies.

RAD-120. Intermediate Clinical Practice. 3 Credits.
CLIN 352 hrs
This 11-week clinical experience allows students the opportunity to put into practice and demonstrate competency of procedures learned in Principles of Radiography I and II. A weekly film critique class for students to evaluate radiographs also is included.
Prerequisites: RAD-110, RAD-114, RAD-117
Additional Fees: Course fee applies.

RAD-200. Pathology for Radiography. 2 Credits.
LECT 30 hrs
This pathology course is an assessment of medical and surgical diseases designed to familiarize the student with changes caused by disease in relationship to radiography. Student projects, associated film presentations and critiques are also included.
Prerequisites: RAD-120
Corequisites: RAD-204 and RAD-213.

RAD-204. Principles of Radiography III. 4 Credits.
LECT 45 hrs LAB 45 hrs
Principles of Radiography III is a study of the anatomy and positioning of the skull and facial bones. Pediatric, geriatric, trauma and mobile radiography are also included.
Prerequisites: RAD-120
Corequisites: RAD-207 and RAD-213
Additional Fees: Course fee applies.

RAD-207. Radiologic Special Imaging. 3 Credits.
LECT 45 hrs
This course provides students with a basic understanding of the more advanced and complex diagnostic procedures. Students are introduced to such procedures as, but not limited to, myelography, arthrography, venography and hysterosalpingography. The basic concepts of pharmacology, venipuncture and contrast agents are included.
Prerequisites: RAD-120
Corequisites: RAD-204 and RAD-213.

RAD-210. Radiographic Exposure. 3 Credits.
LECT 45 hrs
This course will acquaint students with the many methods of routine and special technical factors available to radiographers to create diagnostic radiographs. Emphasizing the various accessory devices that may affect radiograph production, each student comes to understand how technique can significantly affect image quality. Students learn what technical factors can safely be used, aware that radiation physics, radiation protection and quality assurance are interlaced with the principles of radiographic exposure. In addition, upon completion of this course students are able to construct a functional safe technique chart.
Prerequisites: RAD-110, RAD-120
Corequisites: RAD-204,RAD-207.

RAD-213. Radiography Clinical Practice III. 2 Credits.
CLIN 240 hrs
Students are allowed the opportunity to put into practice the course material introduced in this and previous semesters. The course also gives the student more responsibility and independence with procedures that have been deemed competent. Also included is film critique in which students evaluate radiographs.
Prerequisites: RAD-120, RAD-114, RAD-117
Corequisites: RAD-204, RAD-207 and RAD-210
Additional Fees: Course fee applies.

RAD-220. Principles of Radiography IV. 4 Credits.
LECT 45 hrs LAB 45 hrs
Students become acquainted with the various components to a Radiologic Quality Assurance Program stressing the significant role a quality assurance program must play in the field of Radiography. Students also study the effect of various appropriate types of electromagnetic radiation and their effect upon living tissues and learn the importance of radiation protection for patients and personnel. A complete review of all radiography procedures also is provided.
Prerequisites: RAD-204, RAD-213, RAD-207, RAD-200, RAD-210
Corequisites: RAD-227
Additional Fees: Course fee applies.

RAD-224. Advanced Imaging. 2 Credits.
LECT 30 hrs
The course presents the advanced imaging techniques required by nuclear medicine, diagnostic medical sonography, radiation therapy, mammography, computed tomography and magnetic resonance imaging. The basic concepts and principles of cardiac and vascular interventional radiography are also discussed.
Prerequisites: RAD-207, RAD-200, RAD-210, RAD-204, RAD-213
Corequisites: RAD-220 and RAD-227.

RAD-227. Radiography Clinical Practice IV. 2 Credits.
CLIN 240 hrs
This course provides students with an opportunity to refine skills learned in previous radiography clinical courses. Continuous practice is performed to improve technique and procedures. Students complete all remaining competencies for the program.
Prerequisites: RAD-200, RAD-204, RAD-207, RAD-210, RAD-213
Corequisites: RAD-220 and RAD-224
Additional Fees: Course fee applies.

RAD-230. Advanced Clinical Practice. 3 Credits.
CLIN 352 hrs
This 11-week course provides students the opportunity to exercise independent judgment and discretion in the technical performance of medical imaging procedures. Students complete the terminal competency evaluations for the program. This final session of clinical education ensures that the student is ready for employment.
Prerequisites: RAD-220, RAD-224, RAD-227
Additional Fees: Course fee applies.