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Nurs. 302 PREVENTIVE MENTAL HEALTH (8). Individual behavior, the nurse-patient relationship, group processes, and the therapeutic environment; application of mental health concepts to patients in the hospital and the community. 2 hrs. lecture, 12 hrs. lab, 2 hrs. seminar. Fee $10.00. Prerequisite: Nurs. 301.

Nurs. 303 INTRODUCTION TO COMMUNITY HEALTH NURSING (3). Basic principles of community health, community facilities, and epidemiology; introduction to medical statistics. Prerequisite: Nurs. 301.

Nurs. 101 TEACHING PRINCIPLES OF PATIENT CARE (3). Materials and methods employed in health teaching of patients, ancillary personnel, parental discussions, and other groups.

Nurs. 402 COMMUNITY HEALTH NURSING (8). Application of principles of community health nursing. 3 hrs. lecture, 15 hrs. lab. Fee $10.00. Prerequisite: Nurs. 301.

Nurs. 403 CONCEPTS OF LEADERSHIP APPLIED TO HEALTH SERVICES SYSTEMS (6). Administrative processes and their application to nursing situations. 2 hrs. lecture, 6 hrs. lab, 2 hrs. seminar. Fee $10.00.

Nurs. 404 APPLICATION OF NURSING PRINCIPLES IN SPECIAL AREAS (3). Nursing practicum in relation to vocational interest and employment. Fee $10.00.

Nurs. 405 APPLICATION OF NURSING PRINCIPLES IN SPECIALTY AREAS (3). A continuation of Nurs. 401. Fee $10.00. Both courses should be taken concurrently.

Nurs. 406 APPLICATION OF NURSING RESEARCH TO PATIENT CARE (3). Principles of basic research applicable to the clinical setting. Methodology and interpretation of quantitative nursing literature.

Nurs. 497 INDEPENDENT STUDY (1-3). See page 91.

RADIOLOGIC TECHNOLOGY

INSTRUCTORS: T. A. Baier, Co-ordinator; G. R. Cummings.

OBJECTIVES: The aims of the program in Radiologic Technology are threefold; to give a sound background in fundamentals and technique; to give the student several experiences in which he can utilize his full potential; to direct the student to a high standard relevant to preparation for employment in the various fields of Radiologic Technology, including teaching, departmental supervision and administration.

DEGREE REQUIREMENTS

A student must apply to and be accepted by the Department of Radiologic Technology prior to admission to the University. The degree requires the completion of Engl. 102, 103; Math. 112; Biol. 135, 136; Phys. 151, 152; Psyc. 150; Engl. 202; Soc. 300; Econ. 180; and two interim summers’ work in the Radiology Department of an affiliated hospital. These requirements include a minimum of 410 hours of radiological technology lectures and 2,200 hours of hospital practical experience. The student must meet all these requirements before the junior year begins. With 65 credit hours, 27 of which are in the radiologic technology major, the student will be eligible to take the examination of the National Registry.

Bachelor of Science in Radiologic Technology

MAJOR: 57 hours are required including Rad. 315, 334, 335, 401, 408, 416, 435, 436. Electives are to be chosen with approval of advisor.

DESCRIPTION OF COURSES

Rad 101 HOSPITAL RADIOGRAPHIC TECHNIQUE I (1). Practice in positioning radiographic exposure and film critique in the radiology department of a cooperating hospital. Under direct supervision of the staff radiologists and or registered radiologic technologist. 16 hours lab. Prerequisite: Rad. 102, 104.
Rad. 102 RADIOGRAPHIC POSITIONING AND TECHNIQUE I (2). Prepares the student for hospital practical training: emphasizes ethics, professional conduct, patient care and topographic anatomy. 1 hr. lecture, 3 hrs. lab. Fee $5.00. Corequisite: Rad. 104.

Rad. 103 RADIOGRAPHIC POSITIONING AND TECHNIQUE II (4). Demonstration of the phenomena and causes of image formation and visualization; emphasis on improving radiographic quality; spine and pelvis radiography discussed and practiced. 3 hrs. lecture, 2 hrs. lab. Fee $4.00. Corequisite: Rad. 102.

Rad. 104 INTRODUCTION TO RADIOGRAPHY (3). Orientation to X-ray equipment, radiographic exposures and film processing. Special emphasis on radiation protection, medical terminology, topographic anatomy and position of the extremities. 2 hrs. lecture, 2 hrs. lab. Fee $5.00. Corequisite: Rad. 102.

Rad. 203 RADIOGRAPHIC POSITIONING AND TECHNIQUE III (4). The fundamentals of X-ray physics with the emphasis on X-ray machine transformers, rectifiers, circuits and of transformer ratios; skull radiography discussed and practiced. 3 hrs. lecture, 2 hrs. lab. Fee $4.00. Corequisite: Rad. 214.

Rad. 214 HOSPITAL RADIOGRAPHIC HI (1). Practice in positioning, radiographic exposure and film critique in the radiology department of a cooperating hospital, under the direct supervision of the staff radiologist and/or registered radiologic technologist. 24 hrs. lab. Prerequisite: Rad. 101 and Hospital Radiographic Technique II, a summer graduation requirement. Corequisite: Rad. 203.

Rad. 231 RADIOGRAPHIC POSITIONING AND TECHNIQUE IV (4). Advanced instruction in effective use of producing a satisfactory X-ray examination with and without contrast media; special techniques and problems encountered in radiographing atypical patients. 3 hrs. lecture, 2 hrs. lab. Fee $4.00. Prerequisite: Rad. 203.


Rad. 251 HOSPITAL RADIOGRAPHIC TECHNIQUE IV (1). Advanced practice in positioning, radiographic exposure and film critique in the radiology department of a cooperating hospital, under the direct supervision of staff radiologist and/or registered radiologic technologists. 24 hrs. lab. Corequisite: Rad. 232. Student must complete Hospital Radiographic Technique V, a summer graduation requirement during the sophomore summer.

Rad. 252 SURVEY OF MEDICAL AND SURGICAL DISEASES (2). Introductory physiopathology including definitions, nature and cause of diseases, as well as lesions affecting organs and systems. Related examinations where pathological conditions exist. Corequisite: Rad. 251.

Rad. 315 ADVANCED RADIOLOGIC TECHNOLOGY (4). Radiation physics, radiation therapy, dosimetry and radiation protection. 3 hrs. lecture, 2 hrs. lab. Prerequisite: Rad. 231 or equivalent.

Rad. 334 RADIOGRAPHIC SENSITOMETRY LAB (4). Laboratory measurements and written reports on film latitude and speed gamma; validity of the reciprocity law, the resolving power and exposure time with screens demonstrated by student experiments. 2 hrs. lecture, 4 hrs. lab. Fee $5.00. Prerequisite: Rad. 315.

Rad. 335 SPECIAL PROCEDURES (4). Discussion of special procedures with modern, sophisticated radiological equipment on the nervous, urinary, digestive, circulatory and respiratory viscera. 3 hrs. lecture, 2 hrs. lab. Prerequisite: Rad. 334.

Rad. 401 EXPERIMENTS IN RADIOLOGICAL TECHNOLOGY (4). Opportunity for study and experiment on subjects concerning radiological technology. 2 hrs. lecture, 4 hrs. lab. Fee $5.00. Prerequisite: Rad. 335.

Rad. 408 FIELD WORK EXPERIENCE: HOSPITAL RADIOGRAPHIC TECHNIQUE II (1). Advanced practice in positioning, radiographic exposure and film critique in the Radiology Department of a cooperating hospital, under the direct supervision of the staff radiologist and/or registered radiologic technologist. A graduation requirement taught during the freshman summer. 40 hrs. lab. Prerequisite: Rad. 101.

Rad. 408 FIELD WORK EXPERIENCE—ADVANCED HOSPITAL RADIOGRAPHIC TECHNIQUE (1). A continuing study of radiographic technique at a high level, but with the opportunity to specialize in radiation therapy, isotope technology, teaching, or departmental management. The student may take a test to pre-empt summer experience if approved by advisors. 20 hrs. lab.

Rad. 416 ADVANCED RADIOLOGICAL TECHNOLOGY II (4). New trends in radiologic technology, such as thermovision, ultrasound and the latest technical equipment. 3 hrs. lecture, 2 hrs. lab. Prerequisite: Rad. 315.

Rad. 435 ADVANCED RADIATION THERAPY (4). Field planning, dosage calculation, X-ray beam filtration, radiation absorption in tissue, measuring instruments and methods employed in radiation therapy. 3 hrs. lecture, 2 hrs. lab. Prerequisite: Rad. 232.

Rad. 436 ADVANCED NUCLEAR MEDICINE (4). Demonstrations in radiation measurement and protection, biological effects of radiation, principles of radiation detection, considerations of counting and imaging. 3 hrs. lecture, 2 hrs. lab. Prerequisite: Rad. 232.