Prerequisite: RADS 1020; RADS 1220.
Corequisite: RADS 1230.

RADS 1100 Principles of Radiation Biology and Protection (3-0-3)
Provides instruction on the principles of cell radiation interaction. Radiation effects on cells and factors affecting cell response are presented. Acute and chronic effects of radiation are discussed. Topics include: radiation detection and measurement; patient protection; personnel protection; absorbed dose equivalencies; agencies and regulations; introduction to radiation biology; cell anatomy, radiation/cell interaction; and effects of radiation.
Offered: Summer semester.
Prerequisites: Program Admission; RADS 1000.
Corequisite: None.

RADS 1120 Imaging Science I (3-2-4)
Content is designed to establish a basic knowledge of atomic structure and terminology. Also presented are the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter. Factors that govern the image production process, film imaging with related accessories, and a basis for analyzing radiographic images. Included are the importance of minimum imaging standards, discussion of a problem-solving technique for image evaluation and the factors that can affect image quality. Actual images will be included for analysis.
Offered: Fall semester.
Prerequisites: MATH 1111; RADS 1000.
Corequisite: None.

RADS 1210 Clinical Imaging I (0-8-2)
Introduces students to the hospital clinical setting and provides an opportunity for students to participate in or observe radiographic procedures. Topics include: orientation to hospital areas and procedures; orientation to mobile/surgery; orientation to radiography and fluoroscopy; participation in and/or observation of procedures related to the thoracic and abdominal body cavities. Activities of students are under direct supervision.
Offered: Spring semester
Prerequisite: Program Admission.
Corequisite: RADS 1000.

RADS 1220 Clinical Imaging II (0-8-2)
Continues introductory student learning experiences in the hospital setting. Topics include: patient care; radiation safety practices; equipment utilization; exposure techniques; attend to and/or observation of routine projections of the thoracic and abdominal cavities in general and fluoroscopic procedures; observation of routine projections of the upper extremities and the shoulder girdle and lower extremities, pelvic girdle, and spine; observation of procedures related to the gastrointestinal (GI), genitourinary (GU), and biliary systems; and observation of procedure related to minor radiologic procedures. Execution of radiographic procedures will be conducted under direct and indirect supervision. Initial competencies will be obtained.
Offered: Summer semester
Prerequisites: RADS 1210; RADS 1000.
Corequisite: RADS 1020.

RADS 1230 Clinical Imaging III (0-16-4)