

RADS Radiologic Sciences

RADS 2000 Terminology Of Imag & Rad Sci

1 Credit Hour. 1 Lecture Hour. 0 Lab Hours.

Exploration of medical terms related to Radiologic Sciences. Also includes terminology and track specific content related to radiologic sciences.

Prerequisite(s): ENGL 1101.

RADS 2050L Quality Assurance Lab

0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.

RADS 3000 Intro To Radiologic Sciences

2 Credit Hours. 2 Lecture Hours. 1 Lab Hour.

Professional organizations, specialties, accreditation, certification, licensure, professional development, ethics legal issues, radiation protection methodology, and elementary imaging concepts. Open only to majors in radiologic technologies-BS.

RADS 3000L Intro To Rad Science Lab

0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.

RADS 3050 Patient Care And Interaction

3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.

Open only to majors in radiological sciences. Physical and psychological needs of the family and patient. patient transfer techniques, interaction with the terminally ill, vital signs, administration of injections and pharmaceuticals, I.V. and tube maintenance, urinary catheterization, acquisition and interpretation of EKG's, emergency medical situations, infectious disease processes and universal precautions.

Corequisite(s): RADS 3050L.

RADS 3050L Patient Care Lab

0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.

Corequisite(s): RADS 3050.

RADS 3060L Prin Of Image Form/Eval Lab

0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.

RADS 3071 Imaging & Radiation Proc I

3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.

Procedures in volving the chest, abdomen, bony thorax, and viseral organs requiring the use of contrast media including spatial relationships, pathology, equipment manipulation and quality evaluation of radiographic examinations.

Corequisite(s): RADS 3071L.

RADS 3071L Procedures I Lab

0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.

Corequisite(s): RADS 3071.

RADS 3072 Imaging & Rad Procedures li

3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.

Procedures involving extremities, shoulder girdle, and pelvic girdle, including spatial relationships, pathology, equipment manipulation, and quality evaluation of radiographic examinations.

Prerequisite(s): A minimum grade of "C" in RADS 3071.

Corequisite(s): RADS 3072L.

RADS 3072L Radiographic Procedures li Lab

0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.

Corequisite(s): RADS 3072.

RADS 3073 Imaging & Rad Procedures lii

2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.

Procedures involving vertebral column, and cranium, including spatial relationships, pathology, equipment manipulation and quality evaluation of radiographic examinations.

Prerequisite(s): A minimum grade of "C" and prior and concurrent enrollment in RADS 3072.

Corequisite(s): RADS 3073L.

RADS 3073L Procedures lii Lab

0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.

Corequisite(s): RADS 3073.

RADS 3074 Imaging & Rad Procedures Iv

1 Credit Hour. 1 Lecture Hour. 0 Lab Hours.

Procedures involving reproductive organs and facial bones including spatial relationships, pathology, equipment manipulation, and quality evaluation of radiographic examinations.

Prerequisite(s): A minimum grade of "C" in RADS 3073.

Corequisite(s): RADS 3074L.

RADS 3074L Imag & Rad Procedures Iv Lab

0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.

Corequisite(s): RADS 3074.

RADS 3080 Professional Interactions

1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.

A seminar focused on professional interactions in Radiologic Sciences.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 3000.

RADS 3090 Intro To Radiation Physics

3 Credit Hours. 3 Lecture Hours. 1 Lab Hour.

Mechanics, electromagnetic physics and nuclear physics as they relate to the medical setting.

Prerequisite(s): A minimum grade of "C" in all of the following: MATH 1111 or MATH 1113 or MATH 1161 and prior or concurrent enrollment in RADS 3000.

RADS 3090S Radiation Physics Seminar

0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.

RADS 3100 Medical Communication Skills

1 Credit Hour. 1 Lecture Hour. 0 Lab Hours.

Open only to majors in radiological sciences. Content is designed to expand the knowledge base and skills necessary for the practitioner to communicate effectively. Open only to majors in radiological sciences.

RADS 3100L Medical Comm Skills Lab

0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.

Corequisite(s): RADS 3100.

RADS 3112 Intro To Computed Tomography

1 Credit Hour. 1 Lecture Hour. 0 Lab Hours.

An overview of Computed Tomography technology, computer reconstructions algorithms, and clinical application.

RADS 3150 Radiobiology & Rad Protection

3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.

Biological, chemical, and physical effects of radiation. Emphasis on radiation measurement and exposure reduction to minimize somatic and genetic effects. Performance of radiation surveys and radiobiologic research.

Prerequisite(s): A minimum grade of "C" in RADS 3000.

Corequisite(s): RADS 3150L.

RADS 3150L Radiobiology & Protection Lab

0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.

RADS 3161 Radiography Clinical Ed I

3 Credit Hours. 0 Lecture Hours. 20 Lab Hours.

Supervised clinical practice in performing radiographic procedures.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 3050 and RADS 3071.

RADS 3162 Radiography Clinical Ed li

3 Credit Hours. 0 Lecture Hours. 20 Lab Hours.

Supervised clinical practice in performing radiographic procedures.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 3072 and RADS 3161.

RADS 3190 Prin Of Radiation Therapy**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

An Introduction to the history and practice of radiation therapy with an emphasis on patient care, radiation protection, treatment preparation, and treatment delivery.

Corequisite(s): RADS 3000.**RADS 3195 Radiation Therapy Procedures****3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Introduction to principles of patient and treatment with emphasis upon radiation therapy equipment operation and utilization.

Corequisite(s): RADS 3000 and RADS 3195L.**RADS 3195L Rad Therapy Procedures Lab****0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.****Corequisite(s):** RADS 3195.**RADS 3200 Imaging Pathology****3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

A survey of human pathology as demonstrated by radiologic imaging. Includes ultrasound, CT, MRI, nuclear medicine and radiographic images of cancer, vascular diseases, trauma anomalies and other disease processes.

Prerequisite(s): BIOL 2082 and a minimum grade of "C" in RADS 3000.**RADS 3301 Radiation Therapy Clinic Edu I****2 Credit Hours. 0 Lecture Hours. 16 Lab Hours.**

A supervised clinical experience in the application and delivery of radiation therapy.

Prerequisite(s): A minimum grade of "C" in RADS 3195.**RADS 3302 Radiation Therapy Clinic Edu II****2 Credit Hours. 0 Lecture Hours. 16 Lab Hours.**

A supervised clinical experience in the application and delivery of radiation therapy.

Prerequisite(s): A minimum grade of "C" in RADS 3301.**RADS 3450 Leadership In Healthcare****2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.**

This course introduces leadership concepts, focusing on the contemporary theories of leadership. Instructional areas include servant leadership, moral roots of responsible leadership, and effectiveness. A course component will include a leadership service learning practicum.

RADS 3450L Leadership In Healthcare Lab**0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.****RADS 3451 Leadership Practicum****1 Credit Hour. 0 Lecture Hours. 1 Lab Hour.**

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 3450.

RADS 3455 Introduction To Bioethics**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

An introductory course that focuses on biotechnology and health care ethical issues.

Prerequisite(s): A minimum grade of "C" in ENGL 1102.**RADS 3499 Found In Nuclear Medicine****1 Credit Hour. 1 Lecture Hour. 0 Lab Hours.**

Introduction to the concepts, terminology and practices related to nuclear medicine.

Corequisite(s): RADS 3501.**RADS 3501 Prin & Prac Of Nuclear Med I****3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Introduction to the theory and principles of nuclear medicine. Basic principles involved in imaging and diagnosis.

RADS 3501L Prin Of Nuclear Med Lab I**0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.****RADS 3502 Prin & Prac Of Nuclear Med II****3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

A continuation of the basic principles involved in imaging and diagnosis. Topics include non-imaging in vivo and in-vitro procedures and radionuclide therapy.

Prerequisite(s): A minimum grade of "C" in RADS 3501.**RADS 3502L Prin Of Nuclear Med Lab II****0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.****RADS 3503 Prin & Prac Of Nuclear Med III****3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

A continuation of the basic principles involved in imaging and diagnosis with an introduction to advanced theory in nuclear medicine.

Prerequisite(s): A minimum grade of "C" in RADS 3502 and RADS 3520.**RADS 3503L Prin & Prac Of Nuc Med III Lab****0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.****RADS 3505L Prin Of Nuclear Cardiology Lab****0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.****RADS 3510 Nuclear Med Instrumentation****1 Credit Hour. 1 Lecture Hour. 0 Lab Hours.**

Principles of radiation detection equipment and instrumentation employed in nuclear medicine procedures. Topics include detection systems, QC/QA, collimation, tomography, and computer applications.

Prerequisite(s): A minimum grade of "C" in RADS 3501.**RADS 3520 Radio-Pharmacy & Radiochem****3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Radionuclide production, mechanisms of radionuclide localization, preparation and use of radiopharmaceuticals, quality control of radiopharmaceuticals, and governmental regulations.

Prerequisite(s): A minimum grade of "C" in and prior or concurrent enrollment RADS 3501.**RADS 3520L Radio-Pharm & Radiochem Lab****0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.****RADS 3531 Nuclear Med Clinical Edu I****2 Credit Hours. 0 Lecture Hours. 20 Lab Hours.**

Supervised clinical practice in performing nuclear medicine procedure.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 3502 and RADS 3520.**RADS 3532 Nuclear Med Clinical Edu II****4 Credit Hours. 0 Lecture Hours. 18 Lab Hours.**

Supervised clinical practice in performing nuclear medicine procedures.

Prerequisite(s): A minimum grade of "C" in RADS 3531 and RADS 3503 and RADS 3520.**RADS 3600 Introduction To Sonography****3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Introduction to specialties, theoretical concepts, standards and practices related to diagnostic medical sonography.

Corequisite(s): RADS 3600L.**RADS 3600L Intro To Sonography Lab****0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.****Corequisite(s):** RADS 3600.**RADS 3601 Sonographic Theory I****4 Credit Hours. 3 Lecture Hours. 2 Lab Hours.**

Theoretical sonographic concepts of abdominal, gynecological, and obstetrical procedures.

RADS 3601L Sonographic Theory Lab I**0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.****RADS 3602 Sonographic Theory II****4 Credit Hours. 3 Lecture Hours. 2 Lab Hours.**

Continuation of sonographic Theory I. Includes invasive procedures and advanced scanning techniques.

Prerequisite(s): A minimum grade of "C" in RADS 3601.

RADS 3602L Sonographic Theory Lab II
0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.

RADS 3603 Sonographic Theory III
4 Credit Hours. 3 Lecture Hours. 2 Lab Hours.
 Continuation of Sonographic Theory II.

RADS 3603L Sonographic Theory III Lab
0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.

RADS 3604 Sonographic Theory IV
4 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
 Continuation of Sonographic Theory III to include advanced topics.
Prerequisite(s): A minimum grade of "C" in RADS 3603.
Corequisite(s): RADS 3604L.

RADS 3604L Sonographic Theory IV Lab
0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.
 Corequisite(s): RADS 3604.

RADS 3631 Sonography Clinical Ed I
2 Credit Hours. 0 Lecture Hours. 18 Lab Hours.
 Supervised clinical practice in performing Sonographic procedures.
Prerequisite(s): A minimum grade of "C" in RADS 3601 and RADS 3050 and RADS 3600.

RADS 3632 Sonography Clinical Ed II
3 Credit Hours. 0 Lecture Hours. 18 Lab Hours.
 Supervised clinical practice in performing Sonographic procedures.
Prerequisite(s): A minimum grade of "C" in RADS 3631 and RADS 3602.

RADS 3651 Sonographic Physics I
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
 An Introduction to ultrasound instrumentation, propagation principles and interactions.
Prerequisite(s): A minimum grade of "C" in PHYS 1111L or PHSC 1211 and PHSC 1211L or PHYS 1111K.
Corequisite(s): RADS 3561L.

RADS 3651L Sonographic Physics I Lab
0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.
Corequisite(s): RADS 3651.

RADS 3652 Sonographic Physics II
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
 Continuation of RADS 3651 to include Doppler Physics.
Prerequisite(s): A minimum grade of "C" in RADS 3651.
Corequisite(s): RADS 3652L.

RADS 3652L Sonographic Physics II Lab
0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.
Corequisite(s): RADS 3652.

RADS 3750 Advanced Patient Care
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
 Indications and contraindications for diagnostic and therapeutic cardiovascular procedures and an analysis of treatment modalities.
Prerequisite(s): A minimum grade of "C" in RADS 3050 and RADS 3761.

RADS 3750L Advanced Patient Care Lab
0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.

RADS 3761 Cardiovascular Clinical Edu
2 Credit Hours. 0 Lecture Hours. 20 Lab Hours.
Prerequisite(s): A minimum grade of "C" in all of the following: RADS 3771 and prior or concurrent enrollment in RADS 3772 and RADS 3150 and RADS 3775.

RADS 3762 Cardio Clinical Education II
3 Credit Hours. 0 Lecture Hours. 20 Lab Hours.
Prerequisite(s): A minimum grade of "C" in all of the following: RADS 3761 and prior or concurrent enrollment in RADS 4751 and RADS 4752.

RADS 3771 Intro Cardiovasc Interv Sci
2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.
 An introduction to the concepts of and techniques involved in the diagnosis of cardiac and vascular disease.
Corequisite(s): RADS 3771L.

RADS 3771L Intro Cardiovasc Interv Lab
0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.
Corequisite(s): RADS 3771.

RADS 3772 Cardiovascular Imaging & Equip
2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.
 The operation and clinical application of equipment, devices and technology utilized in the diagnosis of cardiac and vascular disease.
Prerequisite(s): A minimum grade of "C" in RADS 3771.
Corequisite(s): RADS 3772L.

RADS 3772L Cardiovasc Imaging & Equip Lab
0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.
Corequisite(s): RADS 3772.

RADS 3775 Adv Patient Care & Monitoring
4 Credit Hours. 4 Lecture Hours. 0 Lab Hours.
 Indications for diagnostic and therapeutic cardiovascular procedures and an analysis of treatment modalities. Caring for the cardiovascular procedural patient, pre, intra, and post procedure are emphasized.
Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 3772 and RADS 3050 and RADS 3090.
Corequisite(s): RADS 3775L.

RADS 3775L Adv Patient Care & Mon Lab
0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.
Corequisite(s): RADS 3775.

RADS 3900 Special Topics In Rad Science
1-6 Credit Hours. 1-6 Lecture Hours. 0 Lab Hours.
 Supervised independent study.

RADS 4050 Quality Mgmt In Radiography
2 Credit Hours. 2 Lecture Hours. 2 Lab Hours.
 Equipment testing, analysis of quality control data and quality assurance data, federal government guidelines and introduction to Total Quality Management (TQM) concepts and procedures.
Prerequisite(s): A minimum grade of "C" in RADS 3090.
Corequisite(s): RADS 4050L.

RADS 4050L Qual Mgmt In Radiography Lab
0 Credit Hours. 0 Lecture Hours. 0 Lab Hours.
Corequisite(s): RADS 4050.

RADS 4090 Radiographic Physics
3 Credit Hours. 3 Lecture Hours. 1 Lab Hour.
 Interaction of radiation with matter, formation of photographic and electronic images, and the physics of nuclear magnetic image and computed tomography.
Prerequisite(s): A minimum grade of "C" in RADS 3090.

RADS 4111 Adv Imaging In Mri
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
 Instrumentation, operation, and clinical uses of Magnetic Resonance Imaging.
Prerequisite(s): A minimum grade of "C" in RADS 3090.

RADS 4112 Advanced Imaging In Ct
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
 Instrumentation, operation, and clinical uses of computerized tomography.
Prerequisite(s): A minimum grade of "C" in RADS 3090 and RADS 3112.

RADS 4113 Advanced Imaging In Mammo
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
 Instrumentation, operation, and clinical uses of mammography.
Prerequisite(s): A minimum grade of "C" in RADS 4090.

RADS 4114 Advanced Imaging In Cvit**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Instrumentation, operation, and clinical uses of cardiovascular interventional radiology.

Prerequisite(s): A minimum grade of "C" in RADS 4090 and RADS 3652.**RADS 4163 Radiography Clinical Ed Iii****1-3 Credit Hours. 0 Lecture Hours. 1-3 Lab Hours.**

Supervised clinical practice in performing radiographic procedures.

Prerequisite(s) A minimum grade of "C" in RADS 3162.**RADS 4164 Radiography Clinical Ed Iv****5 Credit Hours. 0 Lecture Hours. 24 Lab Hours.**

Supervised clinical practice in performing radiographic procedures.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 4163.**RADS 4164S Radiography Synthesis****1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

Discussion of theoretical concepts of radiography as they relate to practice.

RADS 4165S Clin Ed V--Radiography Seminar**1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.****RADS 4171 Magnetic Resonance Clinical Ed****3 Credit Hours. 0 Lecture Hours. 20 Lab Hours.**

Supervised clinical practice in performing magnetic resonance imaging procedures.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 4111.**RADS 4172 Computed Tomography Clinic Ed****3 Credit Hours. 0 Lecture Hours. 20 Lab Hours.**

Supervised clinical practice in performing computed tomography procedures.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 4112.**RADS 4173 Mammography Clinical Ed****3 Credit Hours. 0 Lecture Hours. 20 Lab Hours.**

Supervised clinical practice in performing mammography procedures.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 4113.**RADS 4174 Cardio Intervention Clinic Ed****3 Credit Hours. 0 Lecture Hours. 20 Lab Hours.**

Supervised clinical practice in performing cardiovascular interventional procedures.

Prerequisite(s): A minimum grade of "C" in RADS 4114.**RADS 4175 Advanced Clinical Education****1-6 Credit Hours. 0 Lecture Hours. 3-15 Lab Hours.**

A clinical experience in the advanced area of magnetic resonance imaging or computerized tomography or mammography or cardiovascular interventional radiology. Offered on demand and may be repeated for credit.

RADS 4176 Specialized Clinical Education**1-6 Credit Hours. 0 Lecture Hours. 1-15 Lab Hours.**

Supervised clinical practice in performing specialized imaging procedures.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 4175.**RADS 4201 Radiation Oncology I****2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.**

An introduction to carcinogenesis and treatment of neoplasia. Emphasis is placed upon basic neoplastic processes.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 3190.**RADS 4202 Radiation Oncology II****2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.**

A study of neoplastic disease and treatment interventions related to the head and neck, lymphoreticular, skeletal, integumentary, endocrine, and central nervous systems.

Prerequisite(s): A minimum grade of "C" in RADS 4201.**RADS 4240 Radiation Therapy Physics****2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.**

A detailed analysis of radiation production, nuclear transformations, and interactions with matter. Discussions regarding radiation detectors, instrumentation, and radiation safety are included.

Prerequisite(s): A minimum grade of "C" in RADS 3090.**RADS 4260 Treatment Planning****4 Credit Hours. 4 Lecture Hours. 0 Lab Hours.**

A study of principles used to plan and deliver radiation treatments. Discussions regarding dose absorption, dose and isodose distributions with the corresponding biological effects, contouring, beam filtration, planning protocols brachytherapy, and emerging technologies are included.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 4240.**Corequisite(s):** RADS 4260L.**RADS 4260L Treatment Planning Lab****0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.****Corequisite(s):** RADS 4260.**RADS 4280 Quality Mgmt Radiation Therapy****1 Credit Hour. 1 Lecture Hour. 0 Lab Hours.**

An examination of quality management principles used to ensure safe and efficient treatment delivery. Regulatory agencies, equipment safety, testing procedures, records, billing management are discussed.

Prerequisite(s): A minimum grade of "C" in RADS 4240.**RADS 4303 Radiation Therap Clinic Ed Iii****3 Credit Hours. 0 Lecture Hours. 16 Lab Hours.**

Supervised clinical experience in the application and delivery of radiation therapy.

Prerequisite(s): A minimum grade of "C" in RADS 3302.**RADS 4304 Radiation Therapy Clinic Ed Iv****3 Credit Hours. 0 Lecture Hours. 16 Lab Hours.**

Supervised clinical experience in the application and delivery of radiation therapy.

Prerequisite(s): A minimum grade of "C" in RADS 4303.**RADS 4305 Radiation Therapy Clinical Ed****4 Credit Hours. 0 Lecture Hours. 16 Lab Hours.**

Capstone clinical education course in the application and delivery of radiation therapy.

Prerequisite(s): A minimum grade of "C" in RADS 4304.**RADS 4307 Radiation Therapy Synthesis****1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

Discussion of theoretical concepts of radiation therapy as they relate to practice.

Prerequisite(s): A minimum grade of "C" in all of the following: RADS 4280 and RADS 4260 and prior or concurrent enrollment in RADS 4304 and RADS 4305.**RADS 4308 Radiation Therapy Seminar****1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

Discussion of theoretical concepts of radiation therapy.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 4305 and RADS 4307.**RADS 4410 Cross Sectional Anatomy****3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Open only to majors in the radiologic sciences. Three dimensional anatomical relationships of cross sectional anatomy slices and images produced by imaging modalities in the radiologic sciences. Emphasis on computed tomography and magnetic resonance imaging.

RADS 4415 Radiography Synthesis**1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

Discussion of theoretical concepts of radiography as they relate to practice.

Prerequisite(s): A minimum grade of "C" in all of the following: RADS 3073 and RADS 3150 and RADS 4090 and prior or concurrent enrollment in RADS 4163.

RADS 4420 Senior Radiography Seminar**1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

Discussion of theoretical concepts of radiography

Prerequisite(s): A minimum grade of "C" in all of the following: RADS 4415 and RADS 4050 and prior or concurrent enrollment in RADS 4164.

RADS 4430 Professional Practice Seminar**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Open only to majors in radiologic sciences. Examination of major trends and issues affecting present day radiation and imaging sciences.

RADS 4440H Thesis In Radiologic Sciences**3 Credit Hours. 0 Lecture Hours. 3 Lab Hours.**

A research project under the supervision of a radiologic science faculty committee. The project must include a thesis and oral presentation. This course will substitute for RADS4430. Open only to majors in radiologic sciences.

RADS 4450 Radiologic Sciences Management**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Management, leadership, health care financing and total quality concepts specific to radiologic sciences.

RADS 4451 Management Practicum**3 Credit Hours. 1-15 Lecture Hours. 1-15 Lab Hours.**

Practical off-campus experience in the area of health care management.

Prerequisite(s): A minimum grade of "C" in RADS 4450.

RADS 4512 Ct In Practice Of Nuclear Med**4 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Instrumentation, operation, and clinical uses of computed tomography as it relates to the practice of nuclear medicine.

Prerequisite(s): A minimum grade of "C" in RADS 3112.

Corequisite(s): RADS 4512L and RADS 4533.

RADS 4512L Ct In Pract Of Nuclear Med Lab**0 Credit Hours. 0 Lecture Hours. 15 Lab Hours.**

Corequisite(s): RADS 4512.

RADS 4533 Nuclear Med Clinical Edu Iii**4 Credit Hours. 0 Lecture Hours. 18 Lab Hours.**

Supervised clinical practice in performing nuclear medicine procedures.

Prerequisite(s): A minimum grade of "C" in RADS 3532.

RADS 4534 Nuclear Med Clinical Edu Iv**2 Credit Hours. 0 Lecture Hours. 8 Lab Hours.**

Supervised clinical practice in performing nuclear medicine procedures.

Prerequisite(s): A minimum grade of "C" in RADS 4533.

Corequisite(s): RADS 4535.

RADS 4535 Nuclear Med Clinical Edu V**2 Credit Hours. 0 Lecture Hours. 8 Lab Hours.**

Supervised clinical practice in performing nuclear medicine procedures.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 4535.

RADS 4540 Nuclear Medicine Physics**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Topics include decay modes, half-life, radiation interactions, radiation measurements and instrumentation.

Prerequisite(s): A minimum grade of "C" in RADS 3090 and RADS 3503 and RADS 3499.

Corequisite(s): RADS 4540L.

RADS 4540L Nuclear Medicine Physics Lab**0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.**

Decay models, half-life, radiation interactions, and radiation measurement as applied to nuclear medicine imaging.

Prerequisite(s): A minimum grade of "C" in RADS 3090.

Corequisite(s): RADS 4540.

RADS 4561 Nuclear Medicine Synthesis**1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

A discussion of theoretical concepts of nuclear medicine. Prerequisite(s):

A minimum grade of "C" in all of the following: RADS 3503 and RADS 3150 and RADS 4540 and prior or concurrent enrollment in RADS 4535.

RADS 4562 Nuclear Medicine Seminar**1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

A discussion of advanced theoretical concepts of nuclear medicine.

Prerequisite(s): A minimum grade of "C" in all of the following: RADS 4570 and prior or concurrent enrollment in RADS 4535 and RADS 4561.

RADS 4570 Introduction To Pet**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

The principles of positron emission tomography.

Prerequisite(s): A minimum grade of "C" in all of the following: RADS 4540 and prior or concurrent enrollment in RADS 3532.

RADS 4570L Introduction To Pet Lab**0 Credit Hours. 0 Lecture Hours. 1 Lab Hour.****RADS 4571 Nuclear Medicine Practicum I****1 Credit Hour. 0 Lecture Hours. 1-12 Lab Hours.**

Clinical practice in routine nuclear medicine procedures.

Prerequisite(s): A minimum grade of "C" in RADS 3520.

Corequisite(s): RADS 3503 and RADS 4540.

RADS 4572 Nuclear Medicine Practicum Ii**1 Credit Hour. 0 Lecture Hours. 1-12 Lab Hours.**

Continuation of practice in routine nuclear medicine procedures.

Prerequisite(s): A minimum grade of "C" in RADS 4571.

RADS 4573 Advances In Nuclear Medicine**4 Credit Hours. 3 Lecture Hours. 20 Lab Hours.**

Explores the role of positron emission tomography and other advances in nuclear medicine. Students are required to perform a practicum in these areas.

Prerequisite(s): A minimum grade of "C" in RADS 4572.

RADS 4574 Nuclear Medicine Inquiry**4 Credit Hours. 3 Lecture Hours. 20 Lab Hours.**

Synthesis of information and skills in nuclear medicine technology. This is a required practicum for students in nuclear medicine.

Prerequisite(s): A minimum grade of "C" in RADS 4573.

RADS 4633 Sonography Clinical Ed Iii**3 Credit Hours. 0 Lecture Hours. 19 Lab Hours.**

Supervised clinical practice in performing sonographic procedures.

Prerequisite(s): A minimum grade of "C" and prior or concurrent enrollment in RADS 3632 and RADS 3603.

RADS 4634 Sonography Clinical Ed Iv**3 Credit Hours. 0 Lecture Hours. 16 Lab Hours.**

Supervised clinical practice in performing Sonographic procedures.

Prerequisite(s): A minimum grade of "C" in RADS 4633.

RADS 4635 Sonography Clinical Ed V**3 Credit Hours. 0 Lecture Hours. 12 Lab Hours.**

Supervised clinical practice in performing Sonographic procedures.

Prerequisite(s): A minimum grade of "C" in RADS 4634.

RADS 4661 Sonography Synthesis**1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

A discussion of theoretical concepts of Sonography.

Prerequisite(s): A minimum grade of "C" in RADS 3603 and RADS 3652 and RADS 4663.

Corequisite(s): RADS 4634.

RADS 4662 Sonography Seminar**1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

A discussion of advanced theoretical concepts of Sonography.

Prerequisite(s): A minimum grade of "C" in RADS 4661 and RADS 4634.**Corequisite(s):** RADS 4635.**RADS 4671 Intro To Vascular Sonography****2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.**

Introduction to the principles of Vascular Sonography.

Prerequisite(s): A minimum grade of "C" in RADS 4634.**Corequisite(s):** RADS 4635.**RADS 4671L Intro To Vas Sonography Lab****0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.****RADS 4750 Pt. Assessment And Monitoring****2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.****Prerequisite(s):** A minimum grade of "C" in RADS 3750 and RADS 3772.**Corequisite(s):** RADS 4750L.**RADS 4750L Pt. Assessment And Monitoring****0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.****Prerequisite(s):** A minimum grade of "C" in RADS 3750 and RADS 3772.**Corequisite(s):** RADS 4750.**RADS 4751 Emergency Care****2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.**

Common cardiovascular emergencies and the optimal use of adjunctive pharmacology in addition to other therapies.

Prerequisite(s): RADS 4750 and RADS 4763.**RADS 4751L Emergency Care Lab****0 Credit Hours. 0 Lecture Hours. 2 Lab Hours.**

Common cardiovascular emergencies and the optimal use of adjunctive pharmacology in addition to other therapies.

RADS 4752 Physio. Monitoring And Record.**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

An overview of electrical and mechanical cardiac function.

Prerequisite(s): RADS 4751 and RADS 4763.**RADS 4763 Cardiovasc Clinical Ed. Iii****3 Credit Hours. 0 Lecture Hours. 24 Lab Hours.**

Supervised clinical experience in cardiovascular/ interventional procedures.

Prerequisite(s): RADS 3750 and RADS 3762.**RADS 4764 Cardiovasc. Clinical Ed. Iv****4 Credit Hours. 0 Lecture Hours. 20 Lab Hours.**

Supervised clinical experience in cardiovascular/ interventional procedures.

Prerequisite(s): A minimum grade of "C" in all of the following: RADS 4751 and prior or concurrent enrollment in RADS 4763.**RADS 4765 Cardiovasc Clinical Ed V****4 Credit Hours. 0 Lecture Hours. 20 Lab Hours.**

This course provides an opportunity for competency mastery of cardiovascular procedures in the clinical environment.

Prerequisite(s): A minimum grade of "C" in all of the following: RADS 4764 and prior or concurrent enrollment in RADS 4752.**RADS 4771 Cardiovascular Synthesis****1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

Discussion of theoretical concepts in cardiovascular interventional technology as they relate to practice.

Prerequisite(s): A minimum grade of "C" in all of the following: RADS 4764 and prior or concurrent enrollment in RADS 4765.**RADS 4772 Cardiovascular Seminar****1 Credit Hour. 0 Lecture Hours. 3 Lab Hours.**

Discussion of advanced theoretical concepts in cardiovascular interventional technology as they relate to practice. A minimum grade of "C" in all of the following: RADS 4771 and prior or concurrent enrollment in RADS 4765.

RADS 4773 Flouro Proce In Pract Of Cvis**6 Credit Hours. 1 Lecture Hour. 0 Lab Hours.**

Synthesis of knowledge and skills utilizing fluoroscopy in the practice of cardiovascular imaging. A minimum grade of "C" in RADS 3090 and RADS 3762.

RADS 4773L Flour Proc In Prac Of Cvis Lab**0 Credit Hours. 0 Lecture Hours. 16 Lab Hours.****Corequisite(s):** RADS 4773.**RADS 4800 Rsrch Method In Rad Sci****2 Credit Hours. 2 Lecture Hours. 0 Lab Hours.**

Application of quantitative and qualitative approaches to research issues specific to the Radiologic Sciences. Topics covered include development of research questions, study design, methodology, data collection and analysis.

Prerequisite(s): A minimum grade of "C" in HLPR 2000 and completion of MATH 2200 or MATH 1401.**RADS 6000 Foundations of Radiologic Sciences****3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

This course is an overview of Radiologic Science modalities. It will emphasize the inter-professional relationships among the disciplines of Radiologic Sciences.

RADS 6005 Emerging Trends in Radiologic Sciences**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Examines emerging trends in Radiologic Sciences. Topics include current issues related to technological advances, radiation protection and professional practice issues.

RADS 6010 Principles of Accreditation Concepts**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

An overview of accreditation with emphasis on issues relevant to medical and educational institutions. Topics include institutional and programmatic accreditation pertinent to Radiologic Sciences.

RADS 6020 Fundamental Administration Topics in Radiologic Sciences**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

This course will delve into the administrative requirements for Radiologic and imaging administrators. Content includes management theories, legislative requirements pertaining to the healthcare environment and leadership concepts.

RADS 6030 Picture Archiving and Communication Systems**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

Topics for this course include a study of the process involved in capturing, archiving, processing and displaying of medical images and related information.

RADS 6040 Global Health Issues**3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.**

An introduction to global health. Includes the evaluation of case studies illustrating how global health issues are best understood from multiple perspectives. Topics may include global health ethics, global health policies, gender and health and health and human rights.