

Medical Imaging and Radiation Sciences / B.S.

PROGRAM DESCRIPTION

The Department of Medical Imaging and Radiation Sciences offers a baccalaureate degree in:

- Nuclear Medicine,
- Radiation Therapy,
- Radiography, and
- Sonography.

Nuclear Medicine uses radiopharmaceuticals, scintillation cameras, and computers to image and quantify various physiologic processes throughout the body. The nuclear medicine technologist administers radiopharmaceuticals to patients, positions them for images, and operates the cameras and computers to produce images and analyze data. The images and data provide physicians with information on physiology and metabolic function of specific organs. In both hospital and clinical settings, nuclear medicine technologists perform general and cardiac nuclear procedures on adult and pediatric patients.

Radiation Therapy directs radiation at diseased tissue in strictly controlled circumstances to cure or palliate the disease. The radiation therapist is in daily contact with cancer patients, positioning them for treatment, performing mathematical calculations of radiation dosage, and operating equipment that produces ionizing radiation. Therapists may also specialize in the area of treatment planning, which includes design and construction of various treatment devices and manual and computerized dose computations. The radiation therapist has considerable responsibility in the area of patient care and must be skilled in dealing with terminally ill patients and their families.

Radiography is the profession in which diagnostic medical images are made in the areas of diagnostic radiography, computed tomography (CT), magnetic resonance (MR), mammography, and cardiovascular interventional technology (CIT). Radiographers exercise initiative and judgment in obtaining the images necessary for adequate physician interpretation. As with the other radiation science professions, the patient's confidence must be obtained while translating a "high tech" process into a humane experience.

Sonography uses equipment that generates high frequency sound waves to produce images of the human body. Using imaging procedures and personal initiative, the sonographer gathers data for interpretation and evaluation by the physician. This profession includes abdominal, obstetrical, and pelvic sonography, neurosonography, echocardiography, and vascular technology. In each of these areas the sonographer must be knowledgeable of expected pathology, applicable instrumentation and results.

The four-year program culminates in the baccalaureate degree in Medical Imaging and Radiation Sciences (M.I.R.S.) in the specific discipline of study. Upon successful completion of the program, the student is eligible to apply to the appropriate credentialing agency to sit for the certification examination in the respective profession.

ADMISSION REQUIREMENTS

To be considered for admission, an applicant must:

- have successfully completed, or be in the process of completing a minimum of sixty-four (64) semester hours of course work from an accredited college or university prior to admittance to the program;
- be in good standing with the college or university last or currently attending;
- have a minimum grade point average of 2.50 on a 4.0 scale for all college work attempted;
- have successfully completed or be in the process of completing the prerequisite courses;
- have completed all departmental prerequisite courses with grades of C or better prior to beginning the program; and
- earn a minimum score of 600 (paper-based), or 100 (internet-based) within two years prior to application on the Test of English as a Foreign Language (TOEFL) if English is the second language. TOEFL's web address is <http://www.toefl.org>.



ADMISSION PREREQUISITES

Prerequisite courses are offered at most colleges and universities. Check with the Transfer Equivalency Database on the College of Allied Health web site at <http://www.ah.ouhsc.edu/prereqs/> or with your school advisor regarding equivalent courses.

Required Prerequisites and Credit Hours

- 2** American Federal Government (3 hrs)
 - College Algebra (3 hrs)
 - Elements of Psychology (3 hrs)
- 2** Foreign Language: 2 courses in high school or 2 courses in college (same language)
 - General Chemistry I & lab (5 hrs)
 - Human Anatomy (3-5 hrs)
 - Human Physiology (4 hrs)
 - Introduction to Sociology (3 hrs)
 - Introduction to Zoology w/lab or Concepts in Biology w/lab (4 hrs)
 - Medical Vocabulary (2 hrs)
- 2** Non-Western Culture(3 hrs)
 - Physics I for Life Science Majors (4 hrs)
- 2** Principles of English Composition I (3 hrs)
- 2** Principles of English Composition II (3 hrs)
- 2** U. S. History (3 hrs)
- 2** Understanding Artistic Forms(3 hrs)
- 1** Upper Level Gen Ed Course (3 hrs)
- 2** Western Civilization & Culture(3 hrs)
 - Writing for the Health Professions or Technical Writing

1 is required if applicant has not completed a Bachelor's degree. It is recommended that the applicant take an upper level/division (3000 or 4000 level) non-western culture, western civilization & culture, or understanding art forms class. By taking an upper division course in one of those categories, two prerequisites can be completed with that one class.

2 is not required for applicants that have an Associate of Science or Associate of Arts degree from an Oklahoma college. Not required for applicants that have a Bachelor's degree. Foreign Language 1st and 2nd course are waived for applicants who completed two years in the same language in high school.

APPLICATION PROCEDURE

1. By **March 1** of the year in which admission is sought, follow the step-by-step process for successful application at <http://www.ah.ouhsc.edu/main/Application/default.asp>.
2. Applicants who have fulfilled the admission requirements will be scheduled for an interview with the Medical Imaging and Radiation Sciences Admissions Committee. Applicants are accepted into the program based on scores derived from these areas: cumulative GPA, science GPA, career goal statement, and written interview.
3. A letter of acceptance, alternate status, or denial to the program is mailed to the applicant the beginning of April.
4. The applicant must accept or decline the position in writing within two weeks of notification. Alternates will be selected according to numerical ranking. Alternates may be admitted up to the first class day for the summer semester if all positions have not been filled.
5. Students accepted for admission are required to confirm their intention to enroll and attend with a \$100.00 non-refundable deposit. The deposit is applied toward tuition and fees during the first term.

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ARTICULATION

The RT/Associate Degree articulation program is designed for applicants with an associate degree from a nationally accredited junior/community college in Oklahoma. The A.A.S. degree must include education in nuclear medicine, radiography, radiation therapy, or sonography that is programmatically accredited. In addition, applicants should be certified (ARRT, NMTCB and/or ARDMS) in the discipline in which the A.A.S. degree was earned. Applicants in this category use the procedure outlined herein for all other applicants, and will be considered on the basis of the following:

- completion of all professional and science courses related to the A.A.S. degree with a grade of C or better;
- submission of letter of recommendation from former program director; and
- completion of the following table of prerequisite courses prior to enrollment.

Required Prerequisites and Credit Hours for Articulation Option

College Algebra (3 hrs)
 General Chemistry I (4 hrs) *
 General Education – 3000 or 4000 level (3 hrs)
 Human Physiology (4 hrs)
 I Humanities (6 hrs)
 Medical Vocabulary (2 hrs)
 Principles of English Comp I (3 hrs)
 Principles of English Comp II (3 hrs)
 Medical Imaging and Radiation Sciences (19 hrs)
 Electives to equal 64 hours
 * = Nuclear Medicine applicants only.

I can be completed in the subject areas of non-western civilization and culture, understanding artistic forms, and/or non-western culture.

ESTIMATED PROGRAM COSTS

Tuition is approximately \$132.00 per credit hour for Oklahoma residents. Students may expect additional costs that include, but are not limited to, a personal computer, textbooks, lab fees, insurance, and supplies. Students are required to assume financial responsibilities for expenses associated with clinical requirements. For financial aid information, contact the Financial Aid Office by email at financial-aid@ouhsc.edu or by telephone at (405) 271-2118.

PROGRAM CONTACT INFORMATION

Department of Medical Imaging and Radiation Sciences
 College of Allied Health
 P.O. Box 26901
 Oklahoma City, OK 73190-0901
 Phone: (405) 271-6477
 FAX: (405) 271-1424
 Email: alliedhealth-info@ouhsc.edu
 Internet: <http://www.ah.ouhsc.edu/mirs/>

FOR ADDITIONAL INFORMATION

Office of Academic and Student Services
 College of Allied Health
 Phone: (405) 271-6588
 FAX: (405) 271-3120
 Email: alliedhealth-info@ouhsc.edu
 Internet: <http://www.ouhsc.edu/ahealth>

