

MEDICAL IMAGING AND RADIATION SCIENCES – NUCLEAR MEDICINE, B.S.

Program Description

Nuclear Medicine is the profession that utilizes 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 the images and analyze the data. They have a detailed knowledge of radiation safety procedures and regulations and radiopharmacy. Technologists obtain images and provide physicians with information on injuries and disease processes affecting organ function. Nuclear medicine technologists perform general, cardiac, and oncologic procedures in hospital and clinical settings on adult and pediatric patients.

Program Defined

The Department of Medical Imaging & Radiation Sciences offers a four-year baccalaureate degree with programs in Radiography, Nuclear Medicine, Radiation Therapy, and Sonography. Students may apply to the professional phase of the program, which is offered at the University of Oklahoma Health Sciences Center in Oklahoma City, after completing 64 hours of general education, inclusive of the prerequisite courses.

Each of the four professional programs begins in the summer of every year and consists of 68 semester hours of sequenced and integrated didactic and clinical courses. Students will complete clinical assignments in selected hospital and clinic facilities located throughout the Oklahoma City metropolitan area. Program faculty determine student assignments to clinical rotation sites based upon each student's abilities and clinical education needs.

Why should you choose a bachelor's degree program? Click here (http://www.ah.ouhsc.edu/mirs/why_bachelor.asp) to learn more. The four-year program culminates in the baccalaureate degree in Medical Imaging and Radiation Sciences (B.S.M.I.R.S.) in the specific discipline of study. Upon successfully completing the chosen educational program, the student is eligible to apply to the appropriate credentialing agency to sit for the certification examination in the respective profession.

In 1970, the department established a baccalaureate degree program in Radiography. Baccalaureate programs in Nuclear Medicine and Radiation Therapy were instituted in 1975. In 1978, the fourth program in Sonography was approved. The offering of baccalaureate degrees in all four disciplines within one academic department is unique in the country.

None of the four professions is a prerequisite to one another or subordinate to another. Each degree program can be entered directly after completing prerequisite courses and selection by the Admissions Committee through a competitive application process.

Cost

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 (<http://www.ouhsc.edu/financialservices/SFA/>) at (405) 271-2118.

It is the student's responsibility to ensure they are enrolled in the prescribed courses and to pay tuition and fees at the time designated by the Bursar's Office. Details regarding tuition/fee charges and collection are available from the Bursar's Office.

Admission Requirements

Eligibility Requirements

To be considered for admission, an applicant must:

1. Meet the following credit hour requirements:
 - a. Have successfully completed, or be in the process of completing, a minimum of sixty-four (64) semester hours of coursework (which includes 1 of 3 "First-Year Experience" courses from OU-Norman) prior to beginning the program; OR;
 - b. Have successfully completed, or be in the process of completing, a minimum of sixty-one (61) semester hours of coursework (excluding the OU-Norman "First-Year Experience"). Applicants should understand that if admitted in this scenario, the student will be enrolled in a 'First Year Experience' course while enrolled in the OUHSC program;
2. AND meet the following GPA requirements:
 - a. At minimum, earn a 2.50 cumulative grade point average on a 4.0 scale;
 - b. The University of Oklahoma Health Sciences does not recognize academic forgiveness nor reprieve policies (<https://admissions.ouhsc.edu/Prospective-Students/How-to-Apply/Academic-Forgiveness/>). All attempts of a course are included in the calculation of GPAs;
 - c. Be in good standing with the college or university last or currently attending;
 - d. While a 2.50 is the minimum eligibility requirement, please review our admission statistics (<https://alliedhealth.ouhsc.edu/Prospective-Students/Information-for-Appling/>) from the previous year to ensure that you are a competitive applicant.
3. AND have completed, or are in the process of completing the required pre-requisites (<http://https://alliedhealth.ouhsc.edu/Prospective-Students/Academic-Programs/BS-in-MIRS-Nuclear-Medicine/#13870184-prerequisites>):
 - a. Successfully complete all departmental prerequisite courses with grades of C or better prior to beginning our program in June;
 - i. We recommend that students be enrolled in no more than two pre-requisite science courses in their final semester prior to beginning the program in June.
 - b. Courses taken during the spring 2020 semester may have a "P" for passing or "S" for satisfactory due to the COVID-19 pandemic. Please note that the required 2.75 cumulative grade point average still applies;
 - c. If your pre-requisites are from a college or university that is not the University of Oklahoma, please refer to the Transfer Equivalency Database (<https://sis.ou.edu/ted/>) to find out if your courses transfer.
4. If English is a second language, submit Test of English as a Foreign Language (<https://www.ets.org/toefl.html>) (TOEFL) scores. Applicants must earn a minimum score of 600 (paper-based) or 100 (Internet-based) within two years prior to application. The OUHSC institution code for the TOEFL is 6902. The department may waive

TOEFL scores if the applicant provides evidence of graduation from a U.S. High School or a 4-year Bachelor's degree or higher from a U.S. institution. Click here (<https://admissions.ouhsc.edu/Prospective-Students/International-Applicants/English-Proficiency-Requirement-TOEFL/>) to review additional information regarding the TOEFL and TOEFL waiver.

Application Procedure

- 1. Complete an online application through the University of Oklahoma Health Sciences Office of Admissions and Records (<https://apps.ouhsc.edu/admissions/>);
- 2. Submit official, sealed transcripts from all colleges and/or universities attended directly to OUHS Admissions and Records;
 - a. If previous coursework is from colleges or universities outside of the US, have all transcripts/mark sheets processed through World Education Services (<https://www.wes.org/>) (WES);
- 3. Once the OUHS application is complete and all transcripts have been received, applicants will receive a link to complete the online asynchronous interview/assessment through Kira Talent;
- 4. Selection:
 - a. Once an application is complete, including the OUHS application, Official Transcripts, and Kira Talent Assessment, it will be reviewed on a rolling basis. Decisions may be made as early as October 1st.
 - i. Decisions may include admitted, waitlisted, or denied. We do not publish our waitlist and will continue to admit students until the class is filled, which may continue through April 2025.
 - ii. Admitted applicants will be notified via an electronic letter sent by OU Health Sciences Admissions and Records. Waitlisted or Denied students will be notified via email of their status.
 - iii. It is the responsibility of the applicant to ensure they have provided a correct email address in the OU application system and be monitoring their email for updates.
- 5. Admitted applicants must accept their position according to the timeline communicated on their electronic letter received through OU Health Sciences Admissions and Records, or the position will be considered declined. If admitted, applicants must accept their position by paying a non-refundable deposit, which will be applied toward tuition and fees during the first term.
- 6. Students are required to attend a mandatory orientation the week before the start of their first semester beginning in June 2025 as well as meet all university compliance and eligibility requirements. Admission is conditional based on meeting all requirements and the college reserves the right to rescind admission offers up until the start of the first week of school.

Course	Title	Hours
Year 1		
First Summer		
AHS 3415	Clinical Anatomy	5
MIRS 3111	Medical/Professional Orientation	1
Hours		6
Fall Semester		
AHS 3451	Medical Ethics	1
AHS 4433	Pathology	3
MIRS 3152	Patient Care and Management	2
MIRS 3193	Radiologic Physics and Radiation Protection	3
MIRS 3560	Clinical Nuclear Medicine	2
MIRS 3551	Introduction to Nuclear Medicine	1

UCOL XXX	Core V Gen Ed Prerequisite (if needed) Option 1	0-3
Hours		12-15
Winter Intersession		
UCOL XXX	Core V Gen Ed Prerequisite (if needed) Option 2	0-3
Hours		0-3
Spring Semester		
AHS 4571	Introduction to Research Methodology in Allied Health	1
MIRS 3560	Clinical Nuclear Medicine	3
MIRS 4152	Sectional Anatomy & Pathology	2
MIRS 4332	Radiobiology	2
MIRS 3533	Nuclear Medicine Instrumentation	3
MIRS 3554	Nuclear Medicine Procedures I	4
UCOL XXX	Core V Gen Ed Prerequisite (if needed) Option 3	0-3
Hours		15-18
Year 2		
First Summer		
MIRS 3553	Nuclear Cardiology	3
MIRS 4560	Advanced Clinical Nuclear Medicine & Capstone	3
Hours		6
Fall Semester		
MIRS 3112	Pharmacology	2
MIRS 4173	Principles of Computed Tomography	3
MIRS 4272	Correlative Imaging in Radiation Sciences	2
MIRS 4533	Imaging Devices in Nuclear Medicine	3
MIRS 4553	Nuclear Medicine Procedures II	3
MIRS 4560	Advanced Clinical Nuclear Medicine & Capstone	4
Hours		17
Spring Semester		
MIRS 4521	Nuclear Pharmacy	1
AHS 4452	Healthcare Management & Law	2
MIRS 4522	Nuclear Medicine Lab Regs & Accreditation	2
MIRS 4573	Advanced PET/CT Imaging	3
MIRS 4560	Advanced Clinical Nuclear Medicine & Capstone	4
Hours		12
Total Hours		68-77

Last reviewed: November 2022

Prerequisites

Course numbers are those of the University of Oklahoma. Approved prerequisite courses are offered at many institutions. It is extremely important that you look up every course you have taken, plan to take, and/or are currently enrolled in to verify that they are equivalent courses. The responsibility is yours to enroll in equivalent courses and we provide the tools to make sure you do. Check the Transfer Equivalencies Database (<https://alliedhealth.ouhsc.edu/Prospective-Students/Transfer-Equivalencies-Transcript-Evaluation/>) or with your school advisor regarding equivalent courses. There are instructions on that page on how to request a transcript evaluation for particular courses if your courses are not listed in the database.

All prerequisites are required unless noted in the footnotes. Please read the footnote descriptions located directly underneath the table.

Code	Title	Hours
MATH 1503	College Algebra	3
PSY 1113	Elements Of Psychology	3
CHEM 1305	General Chemistry	4-5
or CHEM 1315 General Chemistry		
BIOL 2234	Introduction To Human Anatomy	3-5

or BIOL 2255	Human Anatomy	
BIOL 2124	Human Physiology	4
BIOL 1005	Concepts in Biology.	4-5
or BIOL 1124	Intro Biol: Molecule/Cell/Phys	
PHYS 1114	General Physics For Non-Science Majors	4-5
or PHYS 2414	General Physics For Life Science Oriented Majors	
CL C 2413	Medical Vocabulary	3
Varies - Upper Level General Education Course ¹		3
ENGL 1113	Principles Of English Composition ²	3
ENGL 1213	Principles Of English Composition ²	3
Varies - Foreign Language First Course ²		
Varies - Foreign Language Second Course ²		
HIST 1483	United States, 1492 To 1865 ²	3
or HIST 1493	United States, 1865 To The Present	
Varies - Western Culture ²		3
Varies - World Culture (or Non-Western Culture) ²		3
PSC 1113	Government of the United States ²	3
Varies - Artistic Forms ²		3
Varies - General Education Course - Core V: First Year Experience ³		3

¹ 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) world culture (or non-western culture), western culture, or artistic forms class. By taking an upper division course in one of those categories, two prerequisites can be completed with that one class.

² Not required for applicants who have an Associate of Science or Associate of Arts degree from an Oklahoma college. Not required for applicants who have a Bachelor's degree. Foreign Language First and Second courses are waived for applicants who completed two years in the same language in high school. Otherwise, applicant must complete two courses in the same foreign language in college.

³ Select electives to equal 61 total credit hours when admitted without a "First Year Experience" general education course or select electives to equal 64 credit hours when admitted with a "First year Experience" general education course completed. Applicants will be required to complete a 'First Year Experience' course for graduation.

Please note: varies = there are multiple courses that are equivalent for these prerequisites. If you are attending OU in Norman for these courses, click here (<http://www.ou.edu/content/gened/courses.html>) for equivalent courses; if attending another institution, please check the Transfer Equivalency Database link below.

Remedial courses do not count toward the transcribed credit hours.

If you are planning to attend the University of Oklahoma Norman campus to fulfill your Western Culture, World Culture (or Non-Western Culture), Artistic Forms, and/or Upper-Level General Education prerequisite, please click (<http://www.ou.edu/content/gened/courses.html>) here to review acceptable courses offered in these categories on the University of Oklahoma Norman campus. Please remember to review footnote #1 above for instructions on the Upper-Level General Education Course.

Program Goals

The goals for the Nuclear Medicine program in the Department of Medical Imaging and Radiation Sciences are:

- Demonstrate didactic and clinical competence in the patient care setting.
- Demonstrate effective verbal, written and non-verbal communication skills which result in effective exchange of information and collaboration with patients, their families and other health professionals.
- Provide responsible and ethical patient-centered care.
- Apply critical thinking and problem-solving skills utilizing evidence-based medicine.
- Demonstrate qualities required for lifelong personal and professional growth.