

MEDICAL IMAGING AND RADIATION SCIENCES – SONOGRAPHY, B.S.

Program Description

The Department of Medical Imaging & Radiation Sciences offers a four-year baccalaureate degree with programs in Radiography, Nuclear Medicine, Radiation Therapy, and Sonography. The Sonography program is offered in both Oklahoma City and Tulsa. Students may apply to the professional phase of the program 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.

Program Defined

The sonography profession uses equipment that generates high-frequency sound waves to produce images of the human body. The sonographer acquires images and data for the interpreting physician to diagnose disease and pathology in patients. This profession includes abdominal sonography, neurosonography, echocardiography, obstetrical and pelvic sonography, and vascular technology. In each of these areas, the sonographer must be knowledgeable of expected pathology, application instrumentation, and exam results.

The OUHSC sonography program is accredited by the Commission on Accreditation of Allied Health Education Programs in Abdominal Extended, Obstetrics and Gynecology, Adult Cardiac, and Vascular sonography, and requires each student to obtain competencies in all these specialty areas. Students who graduate from this program are eligible to take the American Registry of Diagnostic Medical Sonography credentialing exams associated with each of these specialty areas 60 days prior to graduation.

The University of Oklahoma Health Sciences Center College of Allied Health ensures that program expectations, learning objectives, and educational outcomes offered at the Oklahoma City and Tulsa campuses are consistent. Program outcomes between the Oklahoma campus and Tulsa campuses are evaluated yearly by course directors and reported to the Department Chairman and the Dean of the College of Allied Health.

Cost

Students should expect additional costs that include, but are not limited to, a laptop computer, textbooks, lab fees, insurance, and supplies. Students are also 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

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 (<https://alliedhealth.ouhsc.edu/Prospective-Students/Academic-Programs/BS-in-MIRS-Sonography/#13880184-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.

Curriculum

Course	Title	Hours
Year 1		
First Summer		
AHS 3415	Clinical Anatomy	5
MIRS 3111	Medical/Professional Orientation	1
Hours		6
Fall Semester		
AHS 4433	Pathology	3
AHS 3451	Medical Ethics	1
MIRS 3152	Patient Care and Management	2
MIRS 3193	Radiologic Physics and Radiation Protection	3
MIRS 3843	Cardiac Sonography I	3
MIRS 3860	Clinical Sonography	2
UCOL XXXX	Core V Gen Ed (if needed) option 1	0-3
Hours		14-17
Winter Intersession		
UCOL XXXX	Core V Gen Ed (if needed) option 2	0-3
Hours		0-3
Spring Semester		
AHS 3302	Human Embryology	2
MIRS 3873	Abdominal Sonography	3
MIRS 3834	Obstetric and Gynecologic Sonography	4
MIRS 3803	Ultrasound Physics and Instrumentation I	3
MIRS 3851	Vascular Sonography I	1
MIRS 3860	Clinical Sonography	3
Hours		16
Spring Intersession		
UCOL XXXX	Core V Gen Ed (if needed) option 3	0-3
Hours		0-3
Year 2		
First Summer		
MIRS 3872	Advanced Sonography I	2
MIRS 4831	Advanced Obstetric Sonography	1
MIRS 3860	Clinical Sonography	3
Hours		6
Fall Semester		
MIRS 4852	Vascular Sonography II	2
MIRS 4842	Cardiac Sonography II	2
MIRS 4803	Ultrasound Physics and Instrumentation II	3
MIRS 4820	Sonography Imaging	1
MIRS 4860	Advanced Clinical Sonography & Capstone	5
Hours		13
Spring Semester		
AHS 4452	Healthcare Management & Law	2
MIRS 4843	Cardiac Sonography III	3
MIRS 4872	Advanced General Sonography II	2
MIRS 4820	Sonography Imaging	1
MIRS 4860	Advanced Clinical Sonography & Capstone	5
Hours		13
Total Hours		68-77

Last reviewed: May 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 (<http://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 or CHEM 1315	General Chemistry	4-5
BIOL 2234 or BIOL 2255	Introduction To Human Anatomy Human Anatomy	3-5
BIOL 2124	Human Physiology	4
BIOL 1005 or BIOL 1124	Concepts in Biology. Intro Biol: Molecule/Cell/Phys	4-5
CL C 2413	Medical Vocabulary	3
PHYS 1114 or PHYS 2414	General Physics For Non-Science Majors General Physics For Life Science Oriented Majors	4-5
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 or HIST 1493	United States, 1492 To 1865 ² United States, 1865 To The Present	3
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
Varies - Electives 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 Applicants will be required to complete a "First Year Experience" course for graduation. A "First Year Experience" course may be taken prior to applying to OUHSC or a "First Year Experience" course will be offered after admission to OUHSC for those who still need to complete this requirement. The MIRS Department recommends completing this requirement prior to admission to OUHSC. The courses are part of the General Education (<https://www.ou.edu/gened/courses/requirements/>) offered through OU-Norman or may be an equivalent course approved by OU-Norman. 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.

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 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 Sonography program in the Department of Medical Imaging and Radiation Sciences are:

- To prepare competent entry-level abdominal sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.
- To prepare competent entry-level obstetric and gynecologic sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.
- To prepare competent entry-level adult echocardiographic sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.
- To prepare competent entry-level vascular sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.
- Provide an academic and clinical environment which leads to:
- Student demonstration of effective communication with other health care practitioners.
- Student application of effective critical thinking and problem-solving skills.
- Provide avenues for involvement in student governance, service to the University, the community, and profession.
- Provide opportunities for students to engage in research and scholarly activities.