Magnetic Resonance Imaging

Doisy College of Health Sciences



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Accreditation

The Magnetic Resonance Imaging Program at Saint Louis University is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), in cooperation with the American College of Radiology (ACR) and the American Society of Radiologic Technologists (ASRT).

The MRI Program has an advisory committee consisting of clinical instructors, managers, and directors in the healthcare profession. The committee contributes recommendations for enhancing the program as well as assessment of the program.

For further information on the Joint Review Committee on Education in Radiologic Technology, or to view the program's current accreditation status, go to https://www.jrcert.org/.

Joint Review Committee on Education in Radiologic Technology

20 N. Wacker Drive, Suite 2850 Chicago, IL 60606 312-704-5300 mail@jrcert.org

Program Mission and Goals

Programmatic Mission:

The Magnetic Resonance Imaging Program at the Saint Louis University Doisy College of Health Sciences is dedicated to preparing liberally educated, competent, caring and socially responsible Magnetic Resonance Imaging Technologists, committed to clinical and scholarly excellence.

Magnetic Resonance Imaging Program Goals:

- Goal A: Students will be clinically competent
 - 1. Students will appropriately use, record, and verify patient data
 - 2. Students will position patients as directed
 - 3. Students will use the proper imaging sequences
 - 4. Students practice proper MRI and patient safety
- Goal B: The students will demonstrate problem solving and critical thinking skills
 - 1. Students will complete imaging procedures, explaining steps in detail
 - 2. Students will present case studies and MRI final capstone project.
- Goal C: Students will demonstrate effective communication skills
 - 1. The student will appropriately communicate with patients
 - 2. The student will demonstrate appropriate written communication
 - 3. The student will demonstrate proper presentations skills
- Goal D: Students will demonstrate professional growth and development
 - 1. The student will demonstrate professional behaviors
 - 2. The student will have knowledge of ethical behaviors
 - 3. Students will demonstrate professional growth through critical thinking

The program annually tracks student learning outcomes as they relate to the above student goals. This learning outcomes report for the past academic year can be found in the Appendix.

Program Outcomes/Effectiveness Data 2019-2023

The following is the most current program effectiveness data. Our programmatic accreditation agency, the Joint Review Committee on Education in Radiologic Technology (JRCERT), defines and publishes this information. Click here to go directly to the JRCERT webpage.

Credentialing Examination: The number of students who pass, on the first attempt, the American Registry of Radiologic Technologists (ARRT) certification examination, or an unrestricted state licensing examination, compared with the number of graduates who take the examination within six months of graduation. The five-year average benchmark established by the JRCERT is 75%.

| Credentialing Examination Rate | number passed on 1st attempt divided by number attempted within 6 months of graduation | |
|--------------------------------|--|--|
| Year | Results | |
| Year 1 - 2019 | 6 of 7 - 86% | |
| Year 2 - 2020 | 2 of 2 -100% | |
| Year 3 - 2021 | 6 of 6 -100% | |
| Year 4 - 2022 | 7 of 8 -88% | |
| Year 5 - 2023 | 3 of 3 - 100% | |
| Program 5-Year Average | 24 of 26 - 92% | |

Job Placement: The number of graduates employed in the radiologic sciences compared to the number of graduates actively seeking employment in the radiologic sciences within twelve months of graduating. The five-year average benchmark established by the JRCERT is 75%.

| Job Placement Rate | number employed divided by number actively seeking employment within 12 months of |
|------------------------|---|
| Year | Results |
| Year 1 - 2019 | 7 of 7 - 100% |
| Year 2 - 2020 | 2 of 2 - 100% |
| Year 3 - 2021 | 6 of 6 - 100% |
| Year 4 - 2022 | 6 of 6 - 100% |
| Year 5 - 2023 | 3 of 3 - 100% |
| Program 5-Year Average | 24 of 24 - 100% |

Program Completion: The number of students who complete the program within the stated program length. The annual benchmark established by the program is 80%.

| Program Completion Rate | number graduated divided by number started the program | |
|-------------------------|--|--|
| Year | Results | |
| Year 1 - 2023 | 3 of 3 | |
| Annual Completion Rate | 100% | |

Clinical Obligations

Prior to the senior professional year in Magnetic Resonance Imaging in preparation for the clinical component of the program, all senior students are required to complete the following: criminal background check, drug screening, respirator fit test, annual Tb test (two-step process), proof of updated immunizations (including Hepatitis B, Varicella, Tdap and MMR vaccines and annual flu shot) and receipt of acknowledgement and understanding of program technical standard, pregnancy policy and drug screen policy. Additional required training for all students in the professional year includes CPR certification and MRI screening, proof of completion of the following training modules provided by SLU – electrical safety, fire safety and prevention, hazard communication, bloodborne pathogens, HIPPA Privacy Essentials, and emergency preparedness for SLU.

For department-specific policies and procedures, each clinical site provides the student a department specific clinical orientation. In addition, SLU provides indemnification to all students while they are in clinical practicum. A letter of verification for student indemnification while they are in clinical practicum is kept on file with the program and is provided to any clinical site who requests this verification.

Specific information detailing clinical obligations are provided to the student in a mandatory mentoring meeting with the Program Director/Clinical Coordinator in the Spring semester just prior to the beginning of the professional year (Fall semester). This allows students time to complete these obligations.

In addition to the requirements listed, students are required to attend Program Clinical Orientation to introduce them to their clinical requirements. This orientation communicates all clinical obligations to the students prior to their clinical practicum. Clinical Orientation details all requirements for the completion of clinical courses including required clinical competency exams, competency evaluation procedure, rotation evaluations, grading system and grade requirements, progression, clinical rotation placement, transportation requirements, clinical hours, dress code, direct supervision policy and introduction to eValue (Clinical Management System). Clinical sites are all within the St. Louis Metropolitan area and require the student to have transportation and are close enough not to require re-location.

The Program Director/Clinical Coordinator makes all clinical rotation placements. Students attend clinical rotations Monday – Friday with no night or weekend clinical assignments. Students do not attend clinicals when the University is officially closed. Students are provided with a list of official holidays during Program Orientation.

Clinical Sites

Clinical education requirements will place the student in the patient care setting in various clinical areas throughout the St. Louis Metro area; therefore, a student must have reliable transportation to get to the clinical sites. Students will travel to several of the following sites for their clinical rotation.

Barnes-Jewish Hospital

1 Barnes-Jewish Hospital Plaza St. Louis, MO 63110

Belleville Memorial Hospital

4500 Memorial Drive Belleville, IL 62226

Mercy Outpatient Services - Clayton-Clarkson Location

15945 Clayton Rd. Ballwin, MO 63011

Missouri Baptist Medical Center

3015 N. Ballas Rd. St. Louis, MO 63131

Saint Louis University Hospital

3635 Vista Ave. at Grand Blvd. St. Louis, MO 63110-0250

SSM DePaul Hospital

12303 DePaul Drive Bridgeton, MO 63044

SSM Health St. Mary's Hospital

6420 Clayton Road Richmond Heights, MO 63117

SSM St. Claire Health Center

1015 Bowles Avenue Fenton, MO, 63026

St. Luke's Hospital

232 Woods Mill Road Chesterfield, MO 63017

VA Medical Center – John Cochran Division

915 North Grand Avenue St. Louis, MO 63106

Technical Standards

Purpose: This is a non-discriminatory policy that describes the intellectual, social, and physical capabilities required to perform the tasks of magnetic resonance imaging. The mission of the program is to educate a practitioner in Magnetic Resonance Imaging. Therefore, students must meet these standards to pursue the program coursework and work within the field.

All applicants and students of the Magnetic Resonance Imaging Program must be able to perform each of the standards stated in this policy.

In some cases, the use of adaptive devices may be permitted in order for the student to meet selected technical standards.

Magnetic Resonance Imaging Technologists are required to:

- Intellectually understand the conceptual, integrative, and quantitative ability to analyze information and data. Comprehend three-dimensional relationships and the spatial relationships of structure.
 Understand and apply clinical instructions given by departmental personnel.
- Tolerate physical and emotional stress and continue to effectively function. Demonstrate emotional stability and psychological health in day-to-day interaction with patients, staff, family members, and others. They must be adaptable, flexible, and able to function in the face of uncertainty. A student must be able to develop mature, sensitive, and effective relationships with patients and colleagues. He/she must have a high level of compassion for others, motivation to serve, integrity and a consciousness of social values. A student must possess sufficient interpersonal skills to interact with people from all levels of society, all ethnic backgrounds, and all belief systems.
- Clearly communicate, verbally and in writing, with the patient, families, personnel, and others to disseminate
 information about patient care and work duties. Candidates must be able to speak and hear at a level that
 allows them to elicit and convey information, accurately perceive nonverbal communication, and describe
 changes in patient mood, activity and posture, and recognize and respond to an emergency or urgent
 situation. Must demonstrate normal or corrected hearing to discern audible signals on camera imaging
 equipment, phones, and timing devices.
- See with normal or device corrected vision. They must possess the ability to discriminate among blacks, grays, and whites, and various color combinations that indicate tissue contrast on both display devices and recorded images. A student must be able to observe patients accurately and completely, both from a distance and at close range.
- Read, extract and apply appropriate information and instructions contained in patient requisitions, notes, and medical charts. Have the ability to read and comprehend technical and medical information.
- Have the manual dexterity to perform various MRI procedures, such as patient imaging, system quality control, venipuncture, and preparation and administration of contrast media. Motor skills must include the ability to extend hands and arms in any direction. You must be able to hold, grasp, and turn with the hands, and possess the ability to coordinate eyes, hands and feet rapidly and accurately.
- Lift, transfer, and/or move patients from wheelchairs/stretchers/beds to imaging tables. Lift, move,reach, or
 push MRI equipment weighing approx. 30-35 lbs., (e.g. imaging coils, contrast pumps,etc.). Endure an
 eight-hour clinical day with a minimum of four to six hours of standing or walking.

Submit to and receive a satisfactory report on criminal background checks and drug testing for substances
of abuse.

Please note: Many medical devices, such as pacemakers, clips, cochlear implants, medication pumps, stimulators, etc., are considered **unsafe** in the magnetic field environment of the MRI Suite. Other implants may be considered safe or conditional; allowing access to the high magnet field and the MRI technologist profession. In addition, metallic foreign bodies inside the body may be adversely affected by the magnetic field.

Any Magnetic Resonance Imaging Program applicant who has a medical device or an internal metallic foreign body **MUST** contact the program faculty for clearance into the program.

Additional Program Requirements and Fees

| Criminal Background Check | Drug Screen | Respiratory Fit Test | Two Step Tb/PPD Screening | Annual Flu Shot | Poster Fee | CPR |
|---------------------------|-----------------|-------------------------|---------------------------|--------------------|---------------|-----|
| \$76.00 (domestic) | Part of CBC fee | \$15 | \$56 | \$80 | \$25-35 | \$0 |

Criminal Background Check

Fees: \$76.00

A majority of the Doisy College of Health Science's learning experience facilities mandate that criminal background checks be performed on all persons having any opportunity for patient/client interaction. This includes employees and volunteers, as well as students. A CBC revealing a charge and/or conviction for certain crimes could result in a ban from participation in learning experiences and thus prevent graduation. Therefore, every student in the Doisy College of Health Sciences whose academic program requires her/him to participate in learning experiences in an affiliate facility will be required to undergo the level of CBC required by their major department and/or the affiliate facility.

The timing of a CBC will be in concert with the student's program/department or affiliate facility policies. A single negative check does NOT preclude the requirement of additional checks at a future time. Students should be aware that any affirmative results from a CBC could restrict ability to participate in a learning experience and therefore restrict ability to complete degree requirements. In addition, the lack of an acceptable report on a CBC could bar the student from sitting for licensure examinations and thus from practice in certain professions.

In the event that a student's CBC is reported "affirmatively" the student will have the opportunity to contest the report by requesting an additional CBC. In the event that an Affirmative CBC is confirmed, the compliance officer will notify the designated program/department official and the student.

Drug Screen

Fees: (included in the Criminal Background Check fee)

A pre-placement drug screen is required for accreditation standards in the affiliated hospitals in which University faculty and staff work. To comply with these standards and federal regulations, Saint Louis University will require that a pre-placement drug screen occur for students in clinical placement where there will be occupational activities in a University affiliated hospital, clinical site, direct patient contact, or employment.

The student will be advised of the pre-placement drug screen requirement prior to beginning the program. The candidate will be provided with instructions for scheduling the drug screen through the services of CastleBranch.

Candidates who have a positive drug screen will be interviewed by an independent Medical Review Officer who determines if there is a legitimate reason for the presence of a controlled substance. The results of this interview are provided to Student Health and made available to the program.

In the event of a positive result, the Program Director and student will be notified of the positive drug screen. The student will be counseled, and further action regarding the student's enrollment in the program will be considered. The student will be advised that a positive test may result in immediate dismissal from the program.

Other required immunizations/screenings required for clinical placement:

Respirator Fit Test

Provided at SLU Student Health

Fees: \$15.00

Two Step Tb/PPD Screening

Provided at SLU Student Health

Fees: \$56.00

Annual Flu Shot

Provided at SLU Student Health

Fees: \$80.00

Poster Printing

Provided at SLU Instructional Media Center fees: \$25.00-\$35.00

Students are required to prepare and present a research poster as part of their coursework. Students must pay for the cost of printing this poster which is provided at the SLU Instructional Media Center

CPR Certification

Provided inter-departmentally

Admission Policy and Grading Scale

Admission Policy

All incoming freshman are reviewed according to Saint Louis University's Admission policies. Nonfreshman admissions require a minimum GPA of 2.7 and a minimum ACT score of 22 with no subsection lower than 20. Admission decisions are made according to date of complete application submission and space availability on approved JRCERT accreditation class size. A meeting with the MR Program faculty is highly encouraged to discuss admissions criteria, perquisites and Program technical standards.

Program Grading Policy

The MRI Program follows the Saint Louis University grading scale policy. The grading scale for each course is as follows:

| Grade | Quality Points |
|-------|----------------|
| A | 4.00 |
| A- | 3.7 |
| B+ | 3.30 |
| В | 3.00 |
| B- | 2.70 |
| C+ | 2.30 |
| C | 2.00 |
| C- | 1.70 |
| D | 1.00 |
| F | 0.00 |
| FQ | 0.00 |

The grade of FQ should be given to those students who had ceased attending/participating in a course and as a result earned a failing grade.

Undergraduate In-Progress Parameters

- Maximum period of time to accomplish In-Progress coursework is one year. Instructors may set a
 deadline of less than one year.
- A student will be dropped from all courses for which an In-Progress course is a prerequisite if a grade is not submitted prior to the first day of the course's term.

- An "IP" grade converts to a grade of "F" (or "U" for Satisfactory/Unsatisfactory grading scale) if coursework is not completed within one year.
- Once an "IP" grade has converted to an "F" (or "U") the "F" (or "U") may not be revised by the instructor but must be appealed through the Academic Records Revision Committee.

NOTE: In-progress courses for a graduating student must be completed and graded within 30 days of the date that the course grade was posted.

Grievance Policy and Procedures

When the student is completing general education pre-requisite courses at the University prior to the start of the senior professional program year, they are to follow the policies and procedures of the University Grievance Procedure: https://www.slu.edu/provost/accreditation-compliance/student-complaints.php

Once the student begins the professional year in the Radiation Therapy Program they are to follow the grievance procedure outlined by the Department of Clinical Health Sciences (CHS) first, and then the Doisy College of Health Sciences (DCHS) to follow:

https://www.slu.edu/doisy/dchs academic grievance policy.pdf

Before initiating an appeal/grievance to the DCHS Dean and DCHS Academic Grievance Committee consideration, the student must have completed the policy and process outlined by the CHS Department first, as detailed below:

Department of Clinical Health Sciences Academic Grievance Policy

Grade Appeal:

If a student believes that a final grade for a course has been assigned unfairly, the student must initiate the appeal within 90 days after final grades have been posted.

- Student discusses with the course instructor the concerns about the grade and reasons he/she believes the grade is incorrect. The course instructor renders a decision regarding the grade appeal as the instructor of record in that course.
- If the dispute is not satisfactorily resolved, the student may present his/her concerns to the Program Director of the program in which the course is offered. The Program Director reviews the case and renders a decision regarding the grade appeal.
 - (NOTE: If the course instructor is the Program Director, then the student will go directly to the Chair.)
- If the dispute is not satisfactorily resolved at the Program level, the student may present his/her concerns to the Chair of the department of which the course is offered.
- If the dispute is not satisfactorily resolved at the departmental level, the student may present his/her concerns to the Associate Dean for Academic and Student Affairs for the College of which the course is offered. If the dispute is not satisfactorily resolved at the Associate Dean level, the Associate Dean will confer with the Dean. The Dean is the final arbitrator in the grade dispute.

Guidelines for Failure to Progress in a Program:

• When a student has not met the academic eligibility requirements of the Program and is subject to program dismissal the student will be notified by the Chair of the department of their academic status within 30 days of the official and final grade posted on Banner. Academic status and programmatic progression letters will be sent via SLU email to the student. The progression letter will be attached as a letter on official University letterhead. This email will have a subject of "Progression Letter" and will have a read-receipt. Acceptance of the read-receipt will indicate that the student has received the Program's letter of status and/or progression.

- The notification will be sent to the student's Program Director, faculty mentor, and Doisy College of Health Sciences (DCHS) Associate Dean for Academic and Student Affairs.
- The student has the right to appeal the ruling of failure to progress in the program. The appeal gives
 the student the opportunity to explain circumstances or conditions which adversely impacted his/her
 academic success.
- The student appealing the academic eligibility status must submit a letter of appeal in writing
 to the Chair of the department. The request must be made promptly (within 3 working
 days) by the student after the Chair of the department receives confirmation that the
 notification of program dismissal was received.
- The appeal letter from the student should, at a minimum, include the following information:
 - Description of the extenuating circumstances which the student believed to have interfered with his/her academic performance.
 - o How these circumstances have been, or will be alleviated, and
 - The student's plan for academic improvement.
- *If a student is simultaneously appealing a course grade <u>and</u> progressions, the course grade appeal must be resolved prior to the progressions status. Refer to Grade Appeal Policy*

The appeal meeting will proceed as follows:

- The appeal is reviewed by the Program Director and the Chair of the department who makes a joint
 decision regarding the student's appeal. If the Program Director and the Chair do not agree, they will
 enlist the tiebreaking vote from the Associate Dean for Academic and Student Affairs of DCHS.
- The decision will be communicated to the student by the Chair of the Department.

If the appeal is denied, then the student will be dismissed from the program. If the student believes that stated policies and procedures were not followed, the student can file an academic grievance with the Associate Dean for Academic and Student Affairs of the DCHS as stipulated in the College Academic Grievance Policy. This policy has been reviewed and updated by the CHS Program Directors/Clinical Coordinators on 4/5/2021.

The Magnetic Resonance Imaging Program maintains records of all formal grievances and their resolution.

Department of Clinical Health Sciences Non-Academic Grievance Policy

This policy for addressing any departmental or programmatic complaints excludes complaints for which there is an established University, College, or Program policy or procedure, such as grade appeals, academic dismissal appeals, or allegations of harassment based on sex, race, color, religion, national origin, ancestry, disability, age, sexual orientation, marital status, military status, veteran status, gender expression/identity, genetic information, pregnancy, or any other characteristics protected by law.

An individual who has a concern/complaint regarding issues that involves classrooms (cleanliness, temperature), building (access), grounds or operations (shuttle bus) is welcome to communicate their complaint. Program complaints are recognized as an opportunity for improvement and should be expressed with this end in mind. A complainant can choose to communicate a complaint either informally or formally. The issue must occur within one (1) week of the date the complaint is filed.

If the complainant chooses, the complaint can be communicated informally by contacting a faculty member, Program Director, Clinical Coordinator, or staff member to discuss the issue. In this case, there is no documentation of the complaint. The individual to whom the complaint is discussed verbally or informally through an email will forward that complaint to the individual(s) most relevant to addressing the concern.

If the complainant prefers, a formal written complaint outlining the specific issue can be filed with the Program Director. Such a complaint must be communicated in writing. The complaint should state with specificity the facts giving rise to the complaint, the names of persons who have knowledge of the events surrounding the complaint, and the relief sought. It should be signed by the person filing the complaint. All parties to the process will seek to maintain the confidentiality of the process; however, it is recognized that circumstance may compel further disclosure to other persons, particularly if the facts implicate possible violations of law, University policy, or foreseeable risk of harm to any person. The Program Director will maintain a file of all formal, written complaints for a period of five (5) years.

Complaints should be addressed to:
Department of Clinical Health Sciences
Attn: Program Name/Program Director or Department Chair
Suite 3025, Allied Health Building
3437 Caroline Ave
Saint Louis, MO 63104

The Program Director will respond in writing to the complaint and move it to the individual(s) responsible for addressing the issue within 10 working days. However, depending on the nature of the complaint and the individuals involved who may be beyond the Program Director, or the Department/College, the complaint may require a reasonable time frame to be resolved. All updates to requests for action towards resolving the complaint will be communicated to all parties in writing, including the appropriate individual(s) responsible for addressing the topic(s) of complaint.

As appropriate, the Program Director or Chair will forward a written summary of the situation to date to the Chair of the Department and the Dean of the Doisy College of Health Sciences within ten (10) working days of receipt of the complaint. Upon receipt of the complaint, the Chair or the Dean, depending on the content of the complaint, shall evaluate within one calendar month whether the action was appropriate and addressed to the satisfaction of the complainant as well as within the feasibility of resolution.

SAINT LOUIS UNIVERSITY DOISY COLLEGE OF HEALTH SCIENCES ASSESSMENT PLAN

GENERAL GOAL: CONTINUOUSLY MONITOR STUDENT LEARNING OUTCOMES

Division: Clinical Health Sciences

Program: Magnetic Resonance Imaging - Professional Year

Academic Year: 2022-2023

Mission: The Magnetic Resonance Imaging Program at Saint Louis University, Doisy College of Health Sciences is dedicated to

preparing liberally educated, competent, caring and socially responsible MRI technologists, committed to clinical and

scholarly excellence.

| Outcome | Measurement Tool/ Reporting Strategies | Threshold (Benchmark) | Time Line/ Responsible Person | Data/Status/ Action Plan |
|--|--|--|--|---|
| Goal A: Students will be clinically competent 1. Students will appropriately use, record, and verify patient data | 1: a. Clinical Rotation Performance Evaluation, Clinical Competency Form b. Mid & final Rotation Eval Form | 1: a. Average Score of ≥ 2 on a 3 point scale, 3= Exceeded b Average Score of ≥ 2 on a 3 point scale, 3= Exceeded | 1: a & b Fall and Spring Final Evaluation Review by Clinical Coordinator/Instructor | 1 a. 3/3 ≥ 2 1 b. 3/3 ≥ 2 |
| 2. Students will position patients as directed | 2: a Clinical Competency Form b. Mid & final rotation eval form | 2: a Average Score of ≥ 2 on a 3 point scale. b Average Score of ≥ 2 on a 3 point scale, 3= Exceeded | 2: a & b Fall and Spring Final Evaluation Review and by Clinical Coordinator/Instructor 3: a. Fall and Spring Final | 2 a. 3/3 ≥ 2 2 b. 3/3≥ 2 |
| 3. Students will use the proper imaging sequences for ordered exam | 3: a Clinical Competency Form b. Mid & final rotation eval form | 3: a. Average Score of ≥ 2 on a 3 point scale. b. a. Average Score of ≥ 2 on a 3 point scale. | Evaluation Review by Clinical Coordinator/Program director and Clinical Instructor b. End of course, Fall semester by Clinical Instructor | 3 a. 3/3 ≥ 2 b. 3/3 ≥ 2 4 3/3 ≥ 2 |
| 4. Students practice proper MRI and patient safety | 4: a. Clinical Rotation Competency Requirements, b. Clinical Competency Form | 4: a. completion dates b. Average Score of ≥ 2 on a 3 point scale. | 4: Spring Evaluation Review and Summer Final Evaluation Review by Clinical Coordinator/Instructor | 4 3/3 <u>2</u> 2 |

| Outcome | Measurement Tool/ Reporting Strategies | Threshold (Benchmark) | Time Line/ Responsible Person | Data/Status/ Action Plan |
|--|--|---|---|--|
| Goal B: The students will demonstrate problem solving and critical thinking skills | | | | |
| 1. Students will complete imaging procedures, explaining steps in detail. 2. Students will present case studies and MRI final capstone project. | a. Clinical Competency Form b. Clinical Practicum Final Grade c. Employer Survey a. Case studies b. MRI Capstone project | 1. a. Average Score of ≥ 2 on a 3 point scale b. Average Score of ≥ 2 on a 3 point scale c. 75 % response "agree" 2. a. Average Score of ≥ 7 on a 10 point scale. b. Average Score of ≥ 15 on a20 point scale | 1. a. End of Fall and Spring Semester by Course Instructor bEnd of spring semester by Course Instructor c. 6 months after graduation by Program Director 2. a. During Spring Semester by Clinical Coordinator/ Program Director b. During Spring Semester by Clinical Coordinator/ Program Director | 1 a. 3/3 ≥ 2 1.b. 3/3 ≥ 2 1 c. 3/3 - "agree" 2.a. ,3/3 ≥ 7 b. 3/3 ≥ 15 |

| Outcome | Measurement Tool/ Reporting Strategies | Threshold (Benchmark) | Time Line/ Responsible Person | Data/Status/ Action Plan |
|--|---|--|--|---|
| Goal C: Students will demonstrate effective communication skills | | | | |
| The student will appropriately communicate with patients | 1: a. Clinical Rotation Performance Evaluation, General Patient Care b. Clinical Procedure Competency Form Mid & Final Eval Form c. Employer Survey Questions | a. Average Score of > 2 on a 3 point scale. b. Average Score of > 2 on a 3 point scale c. 75% response is "Agree". | 1. a. End of Fall Semester by Clinical Coordinator b. Fall and Spring Final Evaluation Review by Clinical coordinator/Clinical Instructor c. 6 months after graduation by Program Director | 1 a. 3/3 ≥ 2 1 b. 3/3 ≥ 2 1 c. 3 responses , 75% agree with the 4 questions |
| 2. The student will | 6,8,9,10 | 2: a Average score of | 2 a. Spring semester by Program Director | 2 a. 3/3 ≥11 |
| demonstrate appropriate written communication | 2: a. Clinical Reflection Papers b. MRI Capstone final paper | ≥11 on a 15 point scale for CF 2-4 b. Average Score of ≥ 75% | b. Spring Semester by Program Director | 2 b. 3/3 > 75% |
| 3. The student will demonstrate proper presentation skills | 3: MRI 4960 Capstone | 3: Average Score of ≥ 75% | 3: Spring Semester by Program Director | 3. 3/3 > 75% |

| Outcome | Measurement Tool/ Reporting Strategies | Threshold (Benchmark) | Time Line/ Responsible Person | Data/Status/ Action Plan |
|--|---|---|--|--------------------------------------|
| Goal D: Students will demonstrate professional growth and development | | | | |
| The student will demonstrate professional hebayings. | 1: a. Mid & Final Eval form | 1: a. Average Score of ≥ 2 on a 3 point scale. | 1: a. Summer Final Evaluation Review by Clinical coordinator/Clinical Instructor | 1 a. 3/3 > 75% |
| behaviors | b . Employer Survey, | b. Average response is > 80% "agree | b. 6 months after graduation by Program Director | 1 b. 3/3 "agree" |
| 2. The student will have | 2: a. Mid & Final Eval form | 2: a. Average Score of ≥ 2 on a 3 point scale. | 2. a. Summer Semester Final Evaluation by Clinical | 2 a. 3/3 ≥ 2 |
| knowledge of ethical behaviors | b. Employer Survey, | b. Average response is ≥80% "agree" | Coordinator b . 6 months after graduation by Program Director | 2 b. 3/3 "agree" |
| 3. Students will demonstrate professional growth through critical thinking | 3. Critical Reflection Papers | 3. Increase in depth of reflection papers average (Score14-15/15) | Spring semester by Program director Clinical coordinator | 3. 3/3 scored 15 on final Reflection |
| | | , | | |

MRI Program Eval Reports\ MRI learning outcomes table