



Master of Science in Radiologic Sciences Program Handbook



Midwestern State University
Robert D. & Carol Gunn College of Health Sciences and Human Services
Department of Radiologic Sciences

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INTRODUCTION

Welcome to Midwestern State University's (MSU) Master of Science in Radiologic Sciences (MSRS) program. MSU offers the first discipline-specific MSRS degree of its kind in the United States with three areas of concentration: radiologic administration, radiologic education, and radiologist assistant (RA).

The MSRS program at MSU provides a specialized program of study that prepares imaging and radiologic sciences professionals to become leaders in the medical imaging profession. The program allows imaging and radiologic sciences professionals to earn a graduate degree in their discipline and to develop skills that will assist with career advancement within radiologic administration, radiologic education, and advanced clinical practice.

This handbook is designed to provide students with information concerning policies and procedures in the MSRS program at MSU. The information in this handbook is subject to change; the policies as written may be modified, superseded, or eliminated. ***Final approval and interpretation of policies and procedures will be made by the Chair and Graduate Coordinator of the Radiologic Sciences Department at MSU.*** Students will be notified of such changes through regular channels of communication. Students should also check the MSRS website for policy revisions and updates:

[Administration and Education Majors](#)

[RA Majors](#)

For general MSU policies, consult the [MSU Student Handbook](#) and [Graduate Catalog](#).

PROGRAM MISSION STATEMENT

The Master of Science in Radiologic Science (MSRS) program strives to be the premier provider of graduate radiologic science on a state, national, and international level by offering opportunities for development in education, research, leadership, and clinical practice. The program prepares leaders in radiologic administration, radiologic education, and advanced radiologic clinical by:

- Offering opportunities to work with graduate faculty in producing scholarly works, either through applied or original research projects;
- Providing coursework where students can pursue scholarly writing, projects, presentations, and clinical experiences uniquely tailored to their interests (student-centered learning); and

- Emboldening students to pursue other educational opportunities such as doctoral work, leadership development, and advanced clinical practice.

PROGRAM DESCRIPTION AND EDUCATIONAL OBJECTIVES

The program features a discipline-specific holistic approach to graduate education and is offered in a hybrid distance learning format which requires students to make visits to the campus each semester. The unique curriculum design permits working professionals to complete the degree with minimal on-campus requirements while preserving the benefits of face-to-face contact with fellow graduate students. Students benefit from the diverse experiences of their colleagues. All Radiologic Science disciplines and modalities are represented in the student population including radiography, radiation therapy, nuclear medicine, magnetic resonance imaging and sonography. Most of the course requirements are completed independently and coordinated electronically. A limited number of master's-level courses are available online.

The Radiologic Administration major and the Radiologic Education major have a core requirement of 12 graduate hours in radiologic sciences plus 22 required hours for the thesis track or 25 required hours for the non-thesis track. The Radiologist Assistant major has a core requirement of 12 graduate hours in radiologic sciences plus 43 required hours for the thesis track or 40 required hours for the non-thesis track.

The department offers an alternative route to the Radiologist Assistant major for technologists who have completed a recognized Radiologist Assistant program, have a BSRS degree, and have passed the national certification examination for Registered Radiologist Assistants (RRA) administered by the American Registry of Radiologic Technologists (ARRT). The alternative route offers both a thesis or non-thesis option.

Competitive scholarships may be available to qualified applicants, and for students in Academic Common Market states there is an established mechanism to waive out-of-state tuition fees.

ADMISSION STANDARDS AND REQUIREMENTS

An application for admission to the [Midwestern State University Graduate Program](#) is available on the web site.

In addition to completing MSU admission application materials, applicants must complete a separate application for admission to [The Shimadzu School of Radiologic Sciences](#).

NOTE: Applicants to the radiologist assistant major must complete additional admission requirements including an interview. Applicants to the radiologist assistant major must have current ARRT certification in radiography and must have a minimum of two years clinical experience.

A. Program Admission

1. Students must meet the general admission requirements to graduate study prescribed by the *Midwestern State University Graduate Catalog*.
2. Hold credentials in one of the medical imaging modalities or radiation therapy and have at least one year's experience. (For education and administration majors only.)
3. An accredited bachelor's degree from a university recognized by Midwestern State University. Applicants who graduated from a university outside the United States may have to provide a degree equivalency evaluation.
4. Have a minimum cumulative GPA of 3.0 or greater on all college-level work and be in good academic standing. Students with a cumulative GPA below 3.0 may be required to take the Graduate Record Exam (GRE) and may be admitted under conditional status.
5. Submit a curriculum vitae (CV).
6. Submission of an essay.
7. Applicants are required to demonstrate proficiency in English when applying to Midwestern State University. Written and spoken proficiency in the English language may be demonstrated by one of the following options:
 - a. Option 1 - English is your first language.
 - b. Option 2 - Graduated from a regionally accredited four-year college/university in the United States with a bachelor's or graduate degree.
 - c. Option 3 - Acceptable scores on the Test of English as a Foreign Language (TOEFL) or IELTS.

B. Previous Master's Degree

Applicants who have earned a master's or higher degree from a regionally accredited institution of higher education may be accepted on the basis of such degree. Determination of conditions, if any, will be made by the Graduate Coordinator.

C. Specific additional requirements for RA majors

Enrollment in the RA courses is limited and competitive. Students must be approved by the faculty for entry into the RA professional courses following an interview. Applicants are rank-ordered according to a formula based on, but not limited to, several criteria such as grade point average, endorsement of a radiologist preceptor, clinical environment, essay, interview, and previous experiences in medical imaging environments.

1. Students must submit the following with the MSRS application:

- a. Students must provide documentation of Professional Certification. The RA curriculum is based on general diagnostic radiography clinical practice. Applicants must have a working knowledge of general diagnostic radiography procedures. Evidence = Copy of current ARRT card showing certification in radiography.
 - b. Students must provide documentation of the Formal Written Agreement with the Radiologist Preceptor/Group. Although one radiologist will be identified as the preceptor, it is better for students to develop an arrangement with a group of radiologists rather than with an individual radiologist. The Preceptor Agreement must be approved and accepted by the MSU faculty.
 - c. Students must submit the email addresses of at least one radiologist and one current work supervisor for references.
2. Before entry into clinical rotations, students must submit the following:
- a. Students must provide documentation of two (2) years of clinical experience within the previous ten (10) years. Evidence = Letters from appropriate employers/human resource departments.
 - b. Students must provide documentation of current American Heart Association (AHA) Basic Life Support (BLS) AND Advanced Cardiac Life Support (ACLS) Provider status. Evidence = Copy of current AHA BLS and ACLS card.
 - c. Students must be in compliance with Texas Mandated Immunizations.
 - d. Students must provide documentation of the Formal Written Agreement with the Clinical Facility. The students, their preceptors, and the Clinical Facility need to be aware of the variety and quantity of procedures required. The Clinical Facility Agreement has to be approved and accepted by the MSU faculty.
 - e. Students must pass a 10-panel drug test and background screening.
 - f. Students may have other requirements listed in the clinical affiliation agreement.

RA ACCELERATED PROGRAM

For those RA professionals credentialed by the ARRT as a registered radiologist assistant (RRA) who want to pursue a master's degree, MSU offers an accelerated program. Students complete 30 graduate credit hours (15 hours in radiologic sciences core courses and 15 hours in RA track courses). Interested students should contact the Graduate Coordinator or the RA Program Clinical Coordinator for more information.

FINANCIAL AID AND SCHOLARSHIPS

Students interested in financial aid should contact the [MSU Financial Aid Office](#), (940) 397.4214. Students must demonstrate satisfactory academic progress to remain eligible for financial aid and program scholarships. Students are encouraged to investigate external funding such as support from professional, religious, or civic organizations.

MIDWESTERN STATE UNIVERSITY

Competitive scholarships may be available to qualified applicants. Interested students should contact the MSRS Graduate Coordinator for information on scholarship application criteria and availability of funds. Students who terminate enrollment during a semester may be required to reimburse scholarship funds to MSU. The amount of reimbursement will be determined at the time of termination. Students who exit the program and return may have limited opportunities to receive scholarship funding.

ADMISSION STATUS CLASSIFICATIONS

Students must meet the general admission requirements for graduate study prescribed in the most recent edition of the [MSU Graduate Catalog](#) for descriptions of Unconditional Admission, Conditional Admission, and Conditional Admission by Review. *Note: If an RA major is granted a conditional admittance, he/she must contact the Graduate Coordinator to discuss alternatives.*

PREVIOUS MASTER'S DEGREE

An applicant who has earned a master's or higher degree from a regionally accredited institution of higher education may be accepted on the basis of such degree. Determination of conditions, if any, will be made by the Graduate Coordinator.

ADVISING AND REGISTRATION

The Graduate Coordinator will initially advise all new MSRS students about the program and specifically about sequencing of courses. Thereafter, students will refer to their degree plans and the Office of the Registrar's website to enroll in classes via Banner. Students must register for and withdraw from courses before the deadlines designated by the University each semester.

ACADEMIC COMMON MARKET

The Academic Common Market (ACM) is an interstate agreement for sharing academic programs through an exchange of students across state lines. Students have access to selected programs not offered in their home states without having to pay out-of-state tuition charges. Students living in the following states are eligible for the ACM: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

Students wishing to enroll in the ACM should follow these steps:

- The student must first be accepted for admission into the MSRS program at MSU.
- The student must then be certified as a resident of his/her home state. Each state has developed its own forms and procedures for certification. As long as the student remains enrolled, this certification will be valid. The student must contact his/her [state coordinator](#) for the necessary forms and procedures for certification.
- After certifying the residency of an applicant, the state coordinator sends a notice of certification to the student and to MSU.
- The MSU Institutional Coordinator makes arrangements so the student is not charged out-of-state tuition fees.

ANTI-DISCRIMINATION STATEMENT

The MSRS program, as a part of MSU, is an equal opportunity/affirmative action entity that complies with all federal and Texas laws, regulations, and executive orders regarding affirmative action requirements in all programs and policies. The MSRS program does not discriminate against any individual because of age, race, creed, color, sex, national origin, or handicap.

SPECIAL NEEDS

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the [Disability Support Services](#) in Room 168 of the Clark Student Center, (940) 397-4140,.

CAMPUS CARRY

Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus effective August 1, 2016. Areas excluded from concealed carry are appropriately marked in accordance with state law. For more information regarding campus carry, see the [Campus Carry Rules/Policies](#).

ATTENDANCE POLICY

Because of the unique distance-learning format for this program, students must be present for all weekends to receive a passing grade in any didactic course that includes on-campus hours. There are no exceptions to this policy. Timeliness when attending classes is required and may result in grade reduction or dismissal from the program if not followed.

PROGRESSION POLICY

Graduate students are expected to do uniformly high quality work on all MSRS course work pursued (course grades of A or B). Only grades of A or B are acceptable for graduate courses transferred from another university.

Graduate students may earn a grade of C on a maximum of two graduate courses and be allowed to remain in the MSRS program as long as their cumulative grade point average remains 3.0 or higher. If a graduate student earns a grade of C on more than two graduate courses, the student will be dismissed from the MSRS program. Any grade below a C will also result in dismissal from the MSRS program.

Students have up to six years from enrollment in the first radiologic science graduate course to complete the degree requirements. Courses more than six years old cannot be included on a degree plan. If a program of study takes more than six years, students will have to repeat the courses taken more than six years earlier.

GRADING SCALE

A	100 - 90
B	89 - 80
C	79 - 70
D	69 - 60
F	59 and below

INCOMPLETE GRADES

Incomplete grades are only awarded at the discretion of the instructor and only if the student requests the incomplete grade prior to the end of the semester when the grade is due. Incomplete grades are not awarded for lack of attendance. Removal of an “I” grade follows the University policy stated in the MSU Graduate Catalog. Generally, students have up to 90 days in the subsequent regular semester (fall or spring) to satisfy course requirements and convert the “I” into a permanent letter grade. Students may not request incompletes if there are outstanding incompletes from previous semesters.

ADMINISTRATIVE PROCESS

Unresolved issues related to a course should be first addressed between the student and the course instructor. If there is no resolution, students must follow this sequence:

Department Chair – Dr. Beth Veale’ (940) 397.4611

College Dean – Dr. Jeff Killion (940) 397.4594

Dean of Students – Mr. Matthew Park (940) 397.7500

CREDIT TRANSFER

Students wishing to transfer course(s) from another institution must have official transcripts indicating successful completion of course(s) forwarded to the Office of the Registrar, MSU Graduate School, and the MSRS Graduate Coordinator’s office for evaluation.

A maximum of six semester hours of approved residence graduate work from another accredited graduate school may be accepted for credit upon approval by the Graduate Coordinator prior to registration. Prior to approval, the student wishing transfer credit should also submit the course syllabus or course description and content outline for evaluation to the Graduate Coordinator.

GRADUATION

All work offered toward a master's degree must be accomplished within a six-year period. The time period begins when the student enrolls in the first radiologic sciences graduate course.

Graduation candidates for the MSRS degree are required to:

- Successfully complete all required graduate courses with an acceptable cumulative grade point average (CGPA).
- Satisfactorily complete either a thesis or non-thesis option.
- Pass a final comprehensive examination.
- Apply for graduation prior to the last semester or summer term before graduation by filing an [Application for Graduation](#) and paying the graduation fee at the Office of the Registrar and Admissions.
- Attend commencement exercises in December or May unless approved by the MSU Provost for graduation in absentia. Academic regalia (cap, gown, and master's degree hood) may be ordered through the MSU Bookstore.

ACADEMIC DISHONESTY

Academic dishonesty (cheating, plagiarism, etc.) will not be tolerated in this program. Whenever a student is unsure of whether a particular situation will be interpreted as academic dishonesty, he/she should ask the instructor for clarification.

By enrolling in this program, the student expressly grants MSU a "limited right" in all intellectual property created by the student for the purpose of this course. The "limited right" shall include but shall not be limited to the right to reproduce the student's work product in order to verify originality and authenticity and for educational purposes. Specifically, faculty may submit student papers and assignments to an external agency to verify originality and authenticity and to detect for plagiarism.

Cheating includes but is not limited to (a) use of any unauthorized assistance in taking quizzes, tests, or examinations; (b) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or completing other assignments; or (c) the acquisition of tests or other academic materials belonging to MSU Faculty without permission.

Plagiarism includes but is not limited to the use of by paraphrase or direct quotation without correct citation in the text and on the reference list, the published or unpublished works of another person. Students may not submit papers and assignments they have previously submitted for other courses. The use of materials

generated by agencies engaged in "selling" term papers is also plagiarism. Students are encouraged to review the tutorials and suggested websites for more information about plagiarism. Student papers and other assignments may be submitted by the MSU Faculty to an external agency for verification of originality and authenticity.

THESIS OPTION

MSRS students must write either a thesis (original research) or a substantial scholarly paper (non-thesis option) as part of the degree requirements. Students should discuss these options with the MSU graduate faculty before making a decision because post-graduate plans influence the appropriate selection.

A thesis for the MSRS program requires the ability to conduct original research and disseminate findings to an interested audience. The thesis should demonstrate a student's ability to gather information from a variety of resources and synthesize it into a meaningful document. It should highlight a point of interest from a new perspective, introduce a new methodology or protocol, or deliver some message for imaging and radiologic sciences professionals. It must meet the requirements of quantitative or qualitative research (or mixed methods) and may require experimental or survey research. The final manuscript should be worthy of publication in a peer-reviewed journal.

Thesis topics must be related to the students' major in the MSRS program.

Graduate students who select the thesis option are required to complete at least two (total of six credit hours) thesis preparation courses (RADS 6983 and RADS 6993). Students must allow plenty of time for research, writing, submission, faculty review, revisions, second faculty review, additional revisions, etc.

The following guidelines will help MSRS graduate students complete a thesis:

- Prior to enrolling in the first thesis course (RADS 6983), students must collaborate with the Graduate Advisory Committee (GAC) Chair on the thesis topic and prepare a one-page research proposal. The thesis proposal should demonstrate knowledge of and interest in an issue related to imaging and radiologic sciences. The proposal will include a topic description, research questions, and methodology and must be approved by the students' GAC before they can proceed.
- If necessary, students will identify and comply with Midwestern State University's [Institutional Review Board \(IRB\) requirements and guidelines](#). All forms and supporting documentation will be collected and reviewed by the students and their respective GAC Chair.
- The thesis is to be prepared in accordance with the guidelines of the current *Publication Manual of the American Psychological Association*.

- Students should work closely with their GAC to develop the thesis and conduct research.
- By the end of the first thesis course (RADS 6983), students should submit to the GAC the first three thesis chapters: (1) Introduction including research question, (2) Literature Review, and (3) Methodology including hypotheses.
- By the end of the second thesis course (RADS 6993), students should complete the final two chapters: (4) Results and (5) Discussion.
- At least six weeks before the anticipated graduation date, students must present a reading copy of the thesis to the GAC.
 - The reading copy will include all five chapters.
 - At least 35 calendar days before anticipated graduation, students will provide a final reading copy of the thesis to the GAC.
 - In collaboration with the GAC chair, students will schedule a thesis defense at least 21 calendar days before anticipated graduation. During the defense, students should be prepared to conduct a formal presentation of the thesis and respond to any questions from the committee.
 - At the conclusion of the defense, the GAC will provide feedback to students with either an unconditional or conditional approval. An unconditional approval indicates completion of RADS 6993. Students who receive a conditional approval must make all recommended changes within one week.
- Once students make recommended changes and the GAC has approved the thesis, one copy must be presented to the Graduate Dean for approval. The Graduate Dean will have one week to make recommendations. All revisions or modifications suggested by the Graduate Dean must be completed before subsequent copies are made.
 - Once the Graduate Dean's revisions or modifications are complete, the student must submit three copies of the final thesis to the Office of the Vice President with Academic Affairs with the cover sheet signed by the members of the GAC and Graduate Dean. The cover sheet/signature page must be the same type of paper as the rest of the thesis.
 - All copies must be submitted to the Office of the Vice President with Academic Affairs no later than two weeks before the end of the semester in which all degree work is completed.
- One copy of the thesis must be bound and maintained in the Radiologic Sciences Program/Gunn College of Health Sciences and Human Services.
- Enrollment is required each long term (fall and spring) and one summer term each year until the thesis is successfully defended. The Graduate Coordinator may grant a one-semester leave of absence. After the completion of RADS 6983 and RADS 6993 the first time, all subsequent thesis preparation courses until the thesis defense will be classified as RADS 6993.

THESIS OPTION: ADMINISTRATION AND EDUCATION MAJORS

Core Courses

RADS 5013 – Contemporary Trends in Radiologic Sciences	3 hrs
RADS 5023 – Legal and Regulatory Considerations in Radiologic Sciences	3 hrs
RADS 5033 – Leadership for Change in Radiologic Sciences	3 hrs
RADS 5003 – Research Methods I	3 hrs

Online Elective Courses

RADS 6443 – Survey Design in Radiologic Sciences	3 hrs
RADS 6553 – Graduate Data Analysis in Radiologic Sciences	3 hrs

Track Courses

Administration Majors

RADS 5103 – Management Techniques for Radiologic Sciences Admin	3 hrs
RADS 5124 – Financial Management in Radiologic Sciences Admin	4 hrs
RADS 5233 – Evidence-Based Project in Radiologic Sciences Admin	3 hrs

Education Majors

RADS 5223 – Administration of Radiologic Sciences Education Programs	3 hrs
RADS 5204 – Curriculum, Instruction, and Assessment	4 hrs
RADS 5243 – Evidence-Based Project in Radiologic Sciences Education	3 hrs

Thesis Courses

RADS 6983 – Thesis I	3 hrs
RADS 6993 – Thesis II	3 hrs

TOTAL HOURS 34 hrs

THESIS OPTION: RA MAJORS

Core Courses

RADS 5013 – Contemporary Trends in Radiologic Sciences	3 hrs
RADS 5023 – Legal and Regulatory Considerations in Radiologic Sciences	3 hrs
RADS 5033 – Leadership for Change in Radiologic Sciences	3 hrs
RADS 5003 – Research Methods I	3 hrs

Track Courses

RADS 5043 – Advanced Patient Assessment, Mgmt, and Education	3 hrs
RADS 5152- Introduction to Advanced Radiologic Practice	2 hrs
RADS 5156 – RA Clinical Preceptorship I	6 hrs
RADS 5256 – RA Clinical Preceptorship II	6 hrs
RADS 5356 – RA Clinical Preceptorship III	6 hrs
RADS 5456 – RA Clinical Preceptorship IV	6 hrs
RADS 5552 – Pharmacology and Clinical Decision-Making	2 hrs
RADS 5556 – RA Clinical Preceptorship V	6 hrs

Thesis Options

RADS 6983 – Thesis I	3 hrs
RADS 6993 – Thesis II	3 hrs

TOTAL HOURS 55 hrs

NON-THESIS OPTION

MSRS students must write either a thesis (original research) or a substantial scholarly paper (non-thesis option) as part of the degree requirements. Students should discuss these options with the MSU graduate faculty before making a decision because post-graduate plans influence the appropriate selection.

The non-thesis option requires graduate students to write a substantial scholarly research paper (literature review). The scholarly paper should demonstrate students' ability to gather information from a variety of resources and synthesize it into a meaningful document.

Scholarly paper topics must be related to the students' major in the MSRS program.

The scholarly paper may be a significant extension of work previously completed as a course requirement, but students should understand this project represents the submission of a substantial literature review. This paper is to be prepared in accordance with the guidelines of the current *Publication Manual of the American Psychological Association*.

It does not need to meet the requirements of a thesis and does not need to include original research, but it should have academic rigor sufficient to warrant publication in a peer-reviewed journal.

Students must submit paper topics and synthesis matrices to gain approval from the RADS 6773 course instructors. Students must allow plenty of time for research, writing, submission, faculty review, revisions, second faculty review, additional revisions, etc.

If final versions of the scholarly paper are not approved 20 days before the end of a semester, chances are slim the project will be completed that semester, and students should request a grade of "Incomplete." Graduate students have 90 days into the next long semester to complete the scholarly paper before the grade of "Incomplete" will convert to a grade of F.

Students must satisfactorily complete the scholarly paper requirement prior to graduation. A copy of the approval page will be sent to the Office of the Registrar to verify completion of the paper.

Examples of Scholarly Papers:

For an Administration Major

The literature review could focus on middle management motivation. This topic would require a historical perspective on changes for radiology middle managers over the past 10 years, including the reasons they may or may not be motivated. The next section would analyze the efficacy of several established motivators when applied in a typical radiology department. The final section would include recommendations for effective middle management motivators.

For an Education Major

The literature review could compare teaching techniques and would include a background description of how teaching techniques have evolved and the challenges of teaching radiologic science content to the current profiles of students. The next section would describe different question item types. The final section would analyze the appropriateness of different question item types to specific course content and for specific groups of students.

For an RA Major

The literature review could focus on the impact of radiologist assistants for medical imaging delivery. It would require a description of advanced clinical roles. The next section would analyze the advantages and disadvantages when applied in a typical radiology department. The final section would include recommendations for effective clinical practice.

NON-THESIS OPTION: ADMINISTRATION AND EDUCATION MAJORS*

Core Courses

RADS 5013 – Contemporary Trends in Radiologic Sciences	3 hrs
RADS 5023 – Legal and Regulatory Considerations in Radiologic Sciences	3 hrs
RADS 5033 – Leadership for Change in Radiologic Sciences	3 hrs
RADS 5003 – Research Methods I	3 hrs
RADS 6773 – Research Methods II	3 hrs

Online Elective Courses

RADS 6443 – Survey Design in Radiologic Sciences	3 hrs
RADS 6553 – Graduate Data Analysis in Radiologic Sciences	3 hrs

Track Courses

Administration Majors

RADS 5103 – Management Techniques for Radiologic Sciences Admin	3 hrs
RADS 5124 – Financial Management in Radiologic Sciences Admin	4 hrs
RADS 5233 – Evidence-Based Project in Radiologic Sciences Admin	3 hrs
RADS 6003 – Special Graduate Topics in Radiologic Sciences Admin	6 hrs

Education Majors

RADS 5223 – Administration of Radiologic Sciences Education Programs	3 hrs
RADS 5204 – Curriculum, Instruction, and Assessment	4 hrs
RADS 5243 – Evidence-Based Project in Radiologic Sciences Education	3 hrs
RADS 6113 – Special Graduate Topics in Radiologic Sciences Education	6 hrs

TOTAL HOURS 37 hrs

*Recommended option

NONTHESIS OPTION: RA MAJORS*

Core Courses

RADS 5013 – Contemporary Trends in Radiologic Sciences	3 hrs
RADS 5023 – Legal and Regulatory Considerations in Radiologic Sciences	3 hrs
RADS 5033 – Leadership for Change in Radiologic Sciences	3 hrs
RADS 5003 – Research Methods I	3 hrs
RADS 6773 – Research Methods II	3 hrs

Track Courses

RADS 5043 – Advanced Patient Assessment, Mgmt, and Education	3 hrs
RADS 5152- Introduction to Advanced Radiologic Practice	2 hrs
RADS 5156 – RA Clinical Preceptorship I	6 hrs
RADS 5256 – RA Clinical Preceptorship II	6 hrs
RADS 5356 – RA Clinical Preceptorship III	6 hrs
RADS 5456 – RA Clinical Preceptorship IV	6 hrs
RADS 5552 – Pharmacology and Clinical Decision-Making	2 hrs
RADS 5556 – RA Clinical Preceptorship V	6 hrs

TOTAL HOURS 52 hrs

*Recommended option

EVIDENCE-BASED PROJECT (EBP)

In the EBP course, students will identify and complete an evidence-based project within their area of concentration (administration or education). The design of the course affords students the opportunity to apply knowledge and skills obtained throughout the program to the planning, administration, and evaluation of a faculty approved project. See the [MSRS Evidence-Based Project](#) page for specific project guidelines.

COMPREHENSIVE FINAL EXAMINATION

Administration and Education Majors

After completing all course work, administration and education majors are required to take a written comprehensive final examination. The examination is closed book and comprised of both objective and subjective questions from the four core courses (RADS 5013, 5023, 5033, and 5003) and the two required track courses (RADS 5103 and 5124 OR RADS 5223 and 5204). The examination is three hours in length.

The comprehensive final examination should be scheduled the semester prior to anticipated graduation.

Since the comprehensive final examination is accessed via the course management system (Desire2Learn), the examination must be scheduled during the semester. The examination cannot be scheduled during semester breaks.

ProctorU will proctor the comprehensive final examination. Please visit [ProctorU's website](#) to learn more about the technical requirements and identification procedures.

Once an account is created with ProctorU, search for Midwestern State University's MSRS Comprehensive Final Examination and schedule an appointment. ProctorU will notify the Graduate Coordinator of the scheduled examination date and time. Once this information is received, the Graduate Coordinator will send a follow-up e-mail with specific instructions.

The results will be reported as a Pass or Not Pass by e-mail. If a Not Pass is reported, the examination can be taken again the following semester. MSRS majors are allowed to repeat the examination twice before remedial course work is required.

RA Majors

A separate comprehensive final examination is required for RA majors. Contact the RA Clinical Coordinator for more information. Additionally, the American Registry of Radiologic Technologists (ARRT) offers a national certification examination for RAs. Successful completion of the ARRT examination qualifies the imaging sciences professionals to use the RRA credential.

Please note: Because the comprehensive final can generally be taken in the semester prior to graduation, students should also APPLY for graduation when they register for the comp exam.

For more information, visit the [MSRS Comprehensive Final Exam page](#).

TRAVEL AND HOUSING

Students are encouraged to travel from the airports and room together during weekend class seminars. American Eagle services Wichita Falls Municipal Airport. There is no hotel shuttle service at the local airport, but taxis are available. For other airlines, fly either to Dallas or Oklahoma City and rent a car. Both Dallas and Oklahoma City are about 120 miles from Wichita Falls. There is limited van shuttle service between Wichita Falls and the Dallas/Fort Worth metroplex.

Housing accommodations may be found at one of Wichita Falls' hotels. The following is a partial list of hotels closest to MSU (between Kemp and Maplewood):

- Fairfield Inn, (940) 691.1066, 4414 Westgate
- Hampton Inn, (940) 692.1999, 4217 Kemp
- Hawthorn Suites, (940) 692.7900, 1917 North Elmwood
- Homewood Suites, (940) 691.4663, 2675 Plaza Parkway
- Courtyard Wichita Falls, (940) 696.0010, 3800 Tarry

APPENDICES

APPENDIX A

**MASTER OF SCIENCE IN RADIOLOGIC SCIENCES DEGREE PLAN
WITH MAJORS IN
RADIOLOGIC ADMINISTRATION AND RADIOLOGIC EDUCATION**

Major Courses	To Be Completed	Completed & Grade	College/University Transfer	Semester Hours
RADS 5003 Research Methods I				3
RADS 5013 Contemporary Trends in Radiologic Sciences				3
RADS 5023 Legal and Regulatory Considerations				3
RADS 5033 Leadership for Change in Radiologic Sciences				3
RADS 6773 Research Methods II (Non-Thesis option)				3
RADS 6983 Thesis I (Thesis option)				3
RADS 6993 Thesis I (Thesis option)				3
Radiologic Administration Majors				
RADS 5103 Management Techniques for Radiologic Sciences Ad.				3
RADS 5124 Financial Management in Radiologic Sciences Admin.				4
RADS 5233 Evidence-Based Project in Radiologic Sciences Ad.				3
Radiologic Education Majors				
RADS 5223 Adm. of Radiologic Sciences Educational Programs				3
RADS 5204 Curriculum, Instruction, and Assessment				4
RADS 5243 Evidence-Based Project in Radiologic Sciences Ed.				3
Electives				
Elective I RADS 6443 Survey Design				3
Elective II RADS 6553 Data Analysis				3
Elective III (Non-Thesis option)				3
Elective IV (Non-Thesis option)				3
Totals			Non-Thesis option	37
			Thesis option	34

APPENDIX B

**MASTER OF SCIENCE IN RADIOLOGIC SCIENCES DEGREE PLAN
WITH MAJOR IN
RADIOLOGIST ASSISTANT**

Major Courses	To Be Completed	Completed & Grade	College/University Transfer	Semester Hours
RADS 5003 Research Methods I				3
RADS 5013 Contemporary Trends in Radiologic Sciences				3
RADS 5023 Legal and Regulatory Considerations				3
RADS 5033 Leadership for Change in Radiologic Sciences				3
RADS 6773 Research Methods II (Non-Thesis option)				3
RADS 6983 Thesis I (Thesis option)				3
RADS 6993 Thesis I (Thesis option)				3
Radiologist Assistant Majors				
RADS 5043 Advanced Patient Assessment, Mgmt, and Education				3
RADS 5152 Introduction to Advanced Radiologic Practice				2
RADS 5156 – RA Clinical Preceptorship I				6
RADS 5256 – RA Clinical Preceptorship II				6
RADS 5356 – RA Clinical Preceptorship III				6
RADS 5456 – RA Clinical Preceptorship IV				6
RADS 5552– Pharmacology and Clinical Decision-Making in Medical Imaging				2
RADS 5556 – RA Clinical Preceptorship V				6
Totals			Non-Thesis option	52
			Thesis option	55

APPENDIX C

COURSE SCHEDULE

RADIOLOGIC ADMINISTRATION AND RADIOLOGIC EDUCATION MAJORS

FALL START – COHORT A	SPRING START – COHORT B
FALL I (2 MSU campus visits) RADS 5013 – Trends RADS 5023 – Legal	
SPRING I (2 MSU campus visits) RADS 5103 AND RADS 5124 – Management and Finance Or RADS 5223 and RADS 5204 – Ed Admin and Curriculum	SPRING I (2 MSU campus visits) RADS 5013 – Trends RADS 5023 – Legal
SUMMER I (0 MSU campus visits) RADS 6443 – Survey Design RADS 6553 – Graduate Data Analysis	SUMMER I (0 MSU campus visits) RADS 6443 – Survey Design RADS 6553 – Graduate Data Analysis
FALL II (2 MSU campus visits) RADS 5033 – Leadership RADS 5003 – Research	FALL I (2 MSU campus visits) RADS 5033 – Leadership RADS 5003 – Research
SPRING II (0 MSU campus visits) RADS 5233 or 5243 – EBP RADS 6773 or 6983 – Research II or Thesis I	SPRING II (2 MSU campus visits) RADS 5103 AND RADS 5124 – Management and Finance Or RADS 5223 and RADS 5204 – Ed Admin and Curriculum
SUMMER II (0 MSU campus visits) RADS 6003 or 6113 – Electives (6 hrs) Or RADS 6993 – Thesis II	SUMMER II (0 MSU campus visits) RADS 6003 or 6113 – Electives (6 hrs) Or RADS 6983 – Thesis I
	FALL II (0 MSU campus visits) RADS 5233 or 5243 – EBP RADS 6773 or 6993 – Research II or Thesis II

APPENDIX D

COURSE SCHEDULE RADIOLOGIST ASSISTANT MAJORS – NONTHESIS OPTION

FALL START – COHORT A	SPRING START – COHORT B
FALL I (2 MSU campus visits) RADS 5013 – Trends RADS 5023 – Legal RADS 5552 – Pharmacology/Clinical Decision Making	
SPRING I (0 MSU campus visits) RADS 5043 – Advanced Patient Assessment, Mgmt, and Ed	SPRING I (2 MSU campus visits) RADS 5013 – Trends RADS 5152 – Intro to Advanced Rad Practice RADS 5043 – Advanced Patient Assessment, Mgmt, and Ed
SUMMER I (1 MSU campus visit) RADS 5156 – RA Clinical Preceptorship I	SUMMER I (1 MSU campus visit) RADS 5156 – RA Clinical Preceptorship I
FALL II (2 MSU campus visits) RADS 5003 – Research I RADS 5256 – RA Clinical Preceptorship II	FALL I (2 MSU campus visits) RADS 5003 – Research I RADS 5256 – RA Clinical Preceptorship II
SPRING II (2 MSU campus visits) RADS 6773 – Research II RADS 5023 – Legal RADS 5356 – RA Clinical Preceptorship III	SPRING II (2 MSU campus visits) RADS 6773 – Research II RADS 5023 – Legal RADS 5356 – RA Clinical Preceptorship III
SUMMER II (1 MSU campus visit) RADS 5456 – RA Clinical Preceptorship IV	SUMMER II (1 MSU campus visit) RADS 5456 – RA Clinical Preceptorship IV
FALL III (2 MSU campus visits) RADS 5033 – Leadership RADS 5556 – RA Clinical Preceptorship	FALL II (2 MSU campus visits) RADS 5033 – Leadership RADS 5553 – Pharmacology and Clinical Decision-Making RADS 5556 – RA Clinical Preceptorship V

APPENDIX E

COURSE DESCRIPTIONS

RADS 5003 – Research Methods I

Prerequisites: RADS 5013

Explores quantitative, qualitative, and mixed methods research designs and statistical analyses appropriate in radiologic sciences and medical imaging.

RADS 5013 – Contemporary Trends in Radiologic Sciences

Prerequisite: Admission to the MSRS Program

Examines current issues related to administration, education, and advanced clinical practice in radiologic sciences and medical imaging.

RADS 5023 – Legal and Regulatory Considerations in Radiologic Sciences

Prerequisite: Admission to the MSRS Program

Presents legal and regulatory issues facing the healthcare industry and higher education with an emphasis in radiologic sciences and medical imaging.

RADS 5033 – Leadership for Change in Radiologic Sciences

Provides application of various historical and contemporary theories of leadership and change within administration, education, and advanced clinical practice in radiologic sciences and medical imaging.

RADS 5043 – Advanced Patient Assessment, Management, and Education

Prerequisite: Radiologist assistant majors only

Requires intensive clinical thinking involving patient care, assessment, management, and education. Students acquire skills in conducting patient interviews, performing physical assessments, and analyzing and interpreting physiological data.

RADS 5103 – Management Techniques for Radiologic Sciences Administrators

Prerequisite: RADS 5013 and 5023 or consent of Graduate Coordinator

Examines the administrative role in radiologic sciences and medical imaging within healthcare settings. Topics include personnel management, risk management, evaluation methods, policies and procedures, and hiring practices.

RADS 5124 – Financial Management in Radiologic Sciences Administration

Prerequisite: RADS 5013 and 5023 or consent of Graduate Coordinator

Explores financial management and fiscal information related to radiologic sciences and medical imaging within healthcare organizations. Topics include budgeting, marketing, cost analysis, cost finding, rate setting, and cost containment.

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RADS 5152 – Introduction to Advanced Radiologic Procedures

Prerequisite(s): Admission to the RA program

This course introduces students to the role of the radiologist assistant in clinical practice. This course prepares the radiologist assistant to understand and apply appropriate medical imaging clinical pathways, advanced modalities, and performance improvement. This course focuses on advanced radiologic procedures, sterile technique, fluoroscopic operation and radiation safety, radiopharmaceutical safety, and ultrasound operation.

RADS 5156 – RA Clinical Preceptorship I

Prerequisite: Radiologist assistant majors only

Focuses on imaging procedures, anatomy, physiology, and pathophysiology of the thorax and breast.

RADS 5204 – Curriculum, Instruction, and Assessment in Radiologic Sciences Education

Prerequisite: RADS 5013 and 5023 or consent of Graduate Coordinator

Examines curriculum design, instructional strategies, classroom management techniques, and assessment procedures specific to radiologic sciences and medical imaging education.

RADS 5223 – Administration of Radiologic Sciences Educational Programs

Prerequisite: RADS 5013 and 5023 or consent of Graduate Coordinator

Explores preparation, administration, and evaluation of radiologic sciences and medical imaging programs. Topics include recruitment and retention of students, accreditation, financial management, personnel management, public relations, and educational policy.

RADS 5233 – Evidence-Based Project in Radiologic Sciences Administration

Prerequisites: RADS 5003, 5013, 5023, 5033, 5103, and 5124

Requires the use of best practices in an administrative or managerial project specific to radiologic sciences and medical imaging.

RADS 5243 –Evidence-Based Project in Radiologic Sciences Education

Prerequisites: RADS 5003, 5013, 5023, 5033, 5204, and 5223

Requires the use of best practices in an educational project specific to radiologic sciences and medical imaging.

RADS 5256 – RA Clinical Preceptorship II

Prerequisite: RADS 5043, 5152, & 5156 or consent of the Graduate Coordinator

This clinical course will focus on imaging procedures, anatomy, physiology, and pathophysiology of the gastrointestinal and hepatobiliary systems.

RADS 5356 – RA Clinical Preceptorship III

Prerequisite(s): RADS 5256 or consent of the Graduate Coordinator

This clinical course will focus on imaging procedures, anatomy, physiology, and pathophysiology of the musculoskeletal system.

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RADS 5403 – Information Management of Electronic Resources in Radiologic Sciences

Investigates the use and management of electronic resources to support administration, education, clinical practice, and research in radiologic sciences and medical imaging.

RADS 5456 – RA Clinical Preceptorship IV

Prerequisite(s): RADS 5356 or consent of the Graduate Coordinator

This clinical course will focus on imaging procedures, anatomy, physiology, and pathophysiology of the urinary and reproductive systems.

RADS 5553 – Pharmacology and Clinical Decision-Making in Medical Imaging

Prerequisite: RADS 5453 and 5474 or consent of Graduate Coordinator

Presents pharmaceuticals common to medical imaging patients and addresses indications, contraindications, intended uses, and effects on physiology. It also explores appropriate documentation, including patient assessment and monitoring during medical imaging procedures involving pharmacologic agents.

RADS 5556 – RA Clinical Preceptorship V

Prerequisite: RADS 5453 and 5474 or consent of Graduate Coordinator

This clinical course will focus on imaging procedures, anatomy, physiology, and pathophysiology of the vascular, lymphatic, and neurologic systems.

RADS 6003 – Special Graduate Topics in Radiologic Sciences Administration

Requires intensive study in a special area of radiologic sciences administration. Course may be repeated for credit with varying content.

RADS 6113 – Special Graduate Topics in Radiologic Sciences Education

Requires intensive study in a special area of radiologic sciences education. Course may be repeated for credit with varying content.

RADS 6223 – Independent Graduate Study

Requires intensive research study in a special area of radiologic sciences and medical imaging. Course may be repeated once for credit.

RADS 6333 – Special Graduate Topics in Advanced Clinical Practice

Prerequisite: Radiologist assistant majors only

Requires intensive study in a special area of advanced clinical practice in medical imaging. Course may be repeated for credit with varying content.

RADS 6443 – Survey Design in Radiologic Sciences

Explores the design and administration of electronic and paper-based surveys as part of a research project.

RADS 6553 – Graduate Data Analysis in Radiologic Sciences

Examines calculating, interpreting, and reporting common statistical tests used in research projects.

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RADS 6773 – Research Methods II

Provides opportunities to develop skills in information literacy, including critical analyses of published research. Students develop a substantial, scholarly research paper that demonstrates graduate-level writing. Students must register for this course each semester until the scholarly paper is satisfactorily completed.

RADS 6983 – Thesis I

Requires the preparation and development of a graduate-level thesis.

RADS 6993 – Thesis II

Requires the completion and approval of a graduate-level thesis. Students must register for this course each semester until the thesis is satisfactorily completed and approved.

APPENDIX F

RA PROGRAM POLICIES (In Alphabetical Order)

Advanced Cardiac Life Support (ACLS)

ACLS issued by the American Heart Association, Red Cross, or American Health and Safety Institute must be completed before the student enters the program and must be current during all clinical experiences. A current copy of the student's ACLS card must be kept in the student file. It is the student's responsibility to keep this certification current. The card issued must cover the entire program enrollment (minimum five semesters). If a student's ACLS certification expires during the time he/she is in clinical, the student must be re-certified in ACLS.

Academic Standards

Demonstrates mastery in various disciplines, before matriculation and after; as judged by faculty members, examinations, and other measurements of performance. Once a student matriculates at the MSU RA Program, levels of mastery are required in six broad areas of competency.

These six areas of competency are:

- Medical Knowledge
- Interpersonal and Communication Skills
- Patient Care
- Professionalism
- Practice-based Learning and Improvement
- Systems-based Practice

Academic Standards are addressed in detail in the MSU MSRS Program Handbook. Students with specific questions about academic performance requirements in a course should reference the course syllabus or contact the course instructors. Any student who has specific questions about performance requirements in a course should speak with the individual course instructor.

Attendance

Clinical

Students must document clinical contact hours working with their radiologist preceptors during clinical courses. More specific requirements about clinical attendance will be provided in the clinical course syllabi. RA Major clinical competencies meet or exceed the required clinical competencies set by the ARRT.

At least five semesters in the RA Major include clinical preceptorships with at least 24 contact hours per week including at least four hours a week of direct image review with the radiologist preceptor. The program currently requires about 1500 total clinical contact hours.

Because all RA students are experienced healthcare professionals, in cases of severe weather conditions, they should use their own judgment about attending clinical. RA students and radiologist preceptors should have an established system of communication for such situations. The students should inform the MSU RA Clinical Coordinator as soon as possible of any missed clinical time.

Didactic

Because of the unique distance learning format for this program, students must be present for all on-campus class sessions each semester to receive a passing grade in any didactic course which includes on-campus hours. There are no exceptions to this policy. If MSU is closed on an on-campus seminar day because of severe weather, MSU Faculty will contact students with specific instructions. The RA program must have current contact information for all students.

Background Check & Drug Screening Test

The MSRS RA Program is committed to ensuring public and professional trust and providing safe patient care. In order to meet this goal, background investigation, finger printing, and drug screening of students are required. Many of our clinical education settings require additional criminal background investigations of all employees and students. To comply with these requirements, accepted students will be asked to submit to these tests to ascertain the student's suitability for clinical rotations.

Criminal Background Check

All students will be required to submit to a criminal background check facilitated by [CastleBranch.com](https://www.castlebranch.com) before clinical rotation. The background check will include, but is not limited to, a review of prior criminal records, review of nationwide sexual offender records, review of nationwide healthcare fraud and abuse records, review of the nationwide Patriot Act records, review of residency history, and Social Security verification. Students with any felonies on the criminal record will be ineligible for admission into the MSRS RA Program. The submission of any false information to MSRS RA program shall be cause for immediate dismissal. Students are responsible for the payment of the criminal background check. *The criminal background check included criminal records for the state of Texas; additional counties outside of Texas will be searched for an additional fee.

Drug Screening Test Policy

Students may be required to submit for 10 panel urine drug screening (cocaine, amphetamines, barbiturates, benzodiazepines, marijuana, opiates, phencyclidine, propoxyphene, methadone, and synthetic opiates), facilitated by [CastleBranch.com](https://www.castlebranch.com), before clinical rotation and at any time in the program. The student will be responsible for payment of the screening test. If the student tests positive for any illegal substance, he/she will be withdrawn from the program immediately. Non-negative results will be processed further and may require additional testing. Additional drug screening will be at the student's expense. Failure to pass drug screening will result in immediate dismissal from the program. The submission of any false information to MSRS RA program shall be cause for immediate dismissal

This information will remain confidential and will only be viewed by the Radiologic Science Program Chair or designee. Any criminal conviction which is found during the background investigation that may deem a student unsuitable for clinical rotations will be considered on a case by case basis. Additional information regarding the conviction may be required in order to make an informed decision. The background investigation will be made available to clinical education settings that require such. Individuals at the clinical education setting, who are authorized to make decisions

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regarding an individual's eligibility to attend a setting, will inform the Program Chair if a student will be allowed to attend clinical at that setting. If an offense appears on the criminal background check that disqualifies the student from attending clinical experiences, the clinical site(s) will notify the program regarding any students' disqualification for attending clinical at that site. The student will receive written notification. Students who receive notification of ineligibility and who wish to dispute the results of the background investigation may follow the Gunn College of Health Sciences and Human Services Grievance Procedure.

If a student has been convicted of a crime, including a felony, a gross misdemeanor, or a misdemeanor with the sole exception of speeding and parking violations, these must be reported to the American Registry of Radiologic Technologists (ARRT). All alcohol and/or drug related violations must be reported. All potential violations must be investigated by the ARRT in order to determine eligibility. Individuals must file a pre-application with the ARRT in order to obtain a ruling of the impact of their eligibility for the examination. This pre-application may be submitted at any time either before or after entry into an accredited program. For pre-application contact the ARRT at:

ARRT
1225 Northland Dr.
St. Paul, MN 55120-1155
Tel: (651) 687.0048

Communicable Disease

Any student who suspects he/she may have been exposed to or contracted a communicable disease must notify the radiologist preceptor and the MSU RA Clinical Coordinator immediately. If a student has been exposed, appropriate action will be taken to ensure the health and well-being of the student, hospital patients and staff and fellow students.

Students are encouraged to make use of any protective devices available. Students must use surgical gloves and other protective or precautionary measures (consistent with institutional policies) for all procedures in which there may be contact with body fluids (urine, blood, excretion, saliva, etc.). Those students found not in compliance will come back to MSU for retraining on universal precautions for the first offense. Subsequent offenses will lead to a one day suspension for the second offense; a three day suspension for the third offense, and termination from the program for the fourth offense. Most contact will be with patients who have not yet been diagnosed, and therefore, the precautionary procedure of wearing gloves is of paramount importance. Students will use strict isolation techniques if the patient has been diagnosed as having a contagious disease. Students may not refuse to perform radiologic services for these patients.

If a student should be the carrier of a contagious disease, he/she must contact the radiologist preceptor and the MSU RA Clinical Coordinator immediately. A temporary suspension of training may be necessary for legal reasons and for the protection of the patients. In the event a student is barred from the clinical education center because of a communicable disease, the RA Program will work with the student to make up the missed clinical education with a minimum of lost time to the student.

Health/Medical Insurance

RA students are responsible for any personal injury that occurs at the university or hospital. Purchase of health/accident insurance is required. A copy of the student's medical insurance information must be presented during orientation and will be kept in the student's file. It is the student's responsibility to keep this information current.

Any MSU student may purchase health insurance through the University. Contact Vinson Health Center for additional information, (940) 397.4231.

Immunization Requirements

By Texas state law, each RA student entering the clinical environment must have the currently required immunizations:

- MMR (measles, mumps, rubella)
- Tdap (tetanus/diphtheria/pertussis)
- Varicella (Chicken Pox)
- Hepatitis B
- Influenza
- Bacterial Meningitis (if under 22 years of age)
- TB (tuberculosis) screening

All required immunizations must be completed prior to the first clinical day. Students who have not completed their immunizations will **NOT** be allowed to participate in clinical until cleared. All immunization records will be submitted to CastleBranch.com for evaluation and compliance.

Liability Insurance

RA students must carry professional liability insurance during the clinical education phase of their training. These fees are to be paid annually to the Radiologic Sciences Department. The liability insurance is effective on the day clinical education begins and ends on the day the RA program is completed. The coverage is only valid during the students scheduled clinical hours and does not cover students when they are employed.

Professional Conduct and Honesty

Professional conduct and honesty are essential for radiologist assistants. The impression a student makes on the patients and others reflects not only upon the student, but on the RA Program and the University. The RA Program and the University will not tolerate unacceptable behavior in the classroom clinical setting or public events where students represent the RA Program or the University. Students are to abide by the ARRT Radiologic Science Professional Code of Ethics, especially regarding patient protection, patient confidentiality, and patient care.

Professional conduct includes, but is not limited to:

Commitment to Excellence

- Refrain from performing any professional service which requires competence that one does not possess or which is prohibited by law unless the situation morally dictates otherwise;
- Strive to exceed expectations at all times;
- Commit to life-long learning by taking responsibility for one's own learning;
- Reflect on the adequacy of one's knowledge, skill development, and personal barriers to accomplishing learning and growth;
- Take responsibility for learning in group settings by being present, prepared, and engaged;
- Strive for mastery learning appropriate for one's level of training;
- Reflect with colleagues on the success of group work.

Honesty and Integrity

- Identify truthfully and accurately one's credentials and professional status;
- Communicate appropriately in an honest and timely manner;
- Accurately represent actions and events;
- Avoid cheating, plagiarism, and misrepresentation of the truth;
- Reflect on one's personal reaction to encounters with others and accepts responsibility for personal actions;
- Recognize and appropriately disclose and manage conflicts of interest;
- Be forthcoming with information; do not withhold and/or use information for power;
- Admit mistakes.

Compassion

- Recognize and respond to the fears, sufferings, and hopes of patients and their families;
- Assist colleagues in dealing with the challenges of professional work.

Respect for Others

- Respect confidentiality of patients;
- Recognize and respect personal and sexual boundaries;
- Avoid bias (e.g., gender, race, age, sexual orientation) in interactions with others;
- Articulate and embrace the many positive aspects of difference among people and demonstrates awareness of how such differences affect personal interactions;
- Demonstrate a commitment to resolving conflicts in a collegial manner;
- Show sensitivity and respect for the needs, feelings, ideas, and wishes of others in clinical and education settings;
- Demonstrate humility in interactions with others;
- Recognize that appropriate dress and appearance demonstrate respect for others and for the profession.

Professional Responsibility

- Be present and punctual for scheduled activities;
- Take responsibility to notify others for unavoidable absence or tardiness;
- Cope with the challenges, conflicts, and ambiguities inherent in professional work;

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- Identify and appropriately deal with problematic behaviors of oneself and colleagues;
- Be cognizant of and adhere to the chain of command;
- Appropriately displace clinical responsibilities when personal needs demand it;
- Adhere to established professional codes of conduct;
- Practice according to accepted standards of care;
- Identify ethical issues in professional situations and act in an ethical manner;
- Regard as strictly confidential, all information concerning each patient and refrain from discussing this information with any unauthorized individual, including the patient.

Social Responsibility

- Understand and actively address the multiple social factors that threaten the health of patients;
- Actively work for appropriate social change to improve the health of populations;
- Model healthy behaviors.

Altruism

- Place the interests of others above self-interest;
- Be able to give up some personal needs to meet needs of patients.

Unprofessional conduct will **NOT** be tolerated and may result in a recommendation for dismissal from the RA Program.

Serious infractions can result in immediate dismissal from the RA Program. Any student under the influence of drugs or alcohol that impairs clear clinical decision-making and functioning in the classroom or clinical area will be recommended for immediate dismissal from the RA Program.

Radiation Protection and Pregnancy

The RA student *may* inform the MSU RA Clinical Coordinator and the radiologist preceptor if she is pregnant. It is the RA student's responsibility to inform the clinical site Radiation Safety Officer of her pregnancy so appropriate radiation protection measures can be taken.

Technical Standards

The essential aptitudes and abilities allow RA students (and practicing RAs) to perform in the vast array of requisite ways summarized by the six areas of competency above.

Without the ability to demonstrate the essential capacities, students cannot fulfill the requirements of all the courses within the MSU RA Program. Meeting these academic and technical standards are required for a) matriculation (in so much as the abilities can reasonably be determined before matriculation), b) advancement toward candidacy, and c) graduation.

The listed standards are essential in meeting the core competencies as defined above by the MSU RA Program.

Students enrolled in the MSU RA Program must have capacities in five broad areas:

1. Perception/Observation
2. Communication
3. Motor/Tactile Function
4. Cognition
5. Professionalism

Perception/Observation

Students must perceive, by the use of senses and mental abilities, the presentation of information through:

- Small group discussions and presentations;
- Large group lectures;
- Online lectures;
- One-on-one interactions;
- Demonstrations;
- Laboratory experiences;
- Patient encounters;
- Diagnostic findings;
- Procedures;
- Written materials;
- Audiovisual materials.

Students' diagnostic skills will be lessened without the functional use of the senses of equilibrium, smell, hearing, and taste. Additionally, they must have sufficient exteroceptive sense (touch, pain, and temperature), sufficient proprioceptive sense (position, pressure, movement, stereognosis, and vibratory), and sufficient motor function to permit them to carry out these functions.

Communication

Students must skillfully communicate, both orally and in writing (in English), with faculty members, the healthcare team, patients, families, and other students to:

- Elicit information;
- Convey information;
- Clarify information;
- Create rapport;
- Develop therapeutic relationships;
- Work collaboratively.

Students must speak, hear, and observe patients in order to elicit information, describe changes in mood, and perceive nonverbal communications. Students must communicate effectively with patients, including speech, reading, and writing.

Motor/Tactile Function

Students must have sufficient motor function and tactile ability to:

- Attend and participate in classes, groups, and activities which are part of the curriculum;

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- Examine patients (including observation, auscultation, palpation, percussion, and other diagnostic maneuvers);
- Conduct basic radiologic procedures and tests;
- Perform diagnostic/therapeutic procedures;
- Provide patient care appropriate to the circumstances;
- Function in a wide variety of patient care venues;
- Perform in a reasonably independent and competent way in potentially high speed/high demand environments;
- Stand, sit, push, pull, bend, lift, stoop, and perform other necessary functions to provide care to the patient.

Students must demonstrate coordination of both gross and fine muscular movements, equilibrium, and functional use of the senses of touch and vision.

Cognition

Students must demonstrate higher-level cognitive abilities, which include:

- Rational thought;
- Measurement;
- Calculation;
- Visual-spatial comprehension;
- Conceptualization;
- Analysis;
- Synthesis;
- Organization;
- Representation (oral, written, diagrammatic, three-dimensional);
- Memory;
- Application;
- Clinical reasoning;
- Ethical reasoning;
- Sound judgment.

Students must possess the above abilities to reach diagnostic and therapeutic judgments. They must also comprehend three-dimensional relationships and the spatial relationships of structures.

Professionalism

Students must consistently demonstrate the core attributes of professionalism. MSU has defined the following behaviors as indicators of professionalism. See MSU Professional Conduct and Honesty policy:

- Commitment to Excellence
- Honesty and Integrity
- Respect for Others
- Empathy and Compassion
- Professional Responsibility
- Social Responsibility
- Altruism

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Students must possess the emotional health necessary for full utilization of their intellectual abilities, the exercise of sound judgment, the prompt completion of responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive, and effective relationships with patients and co-workers. Students must tolerate physically taxing workloads and to function effectively under stress. They must adapt to changing environments, display flexibility, and learn to function in the face of uncertainties inherent in the clinical problems of many patients. They must have a high level of compassion for others, motivation to serve, integrity, and a consciousness of social values, and sufficient interpersonal skills to interact positively with people from all levels of society, all ethnic backgrounds, and all belief systems.

Students with Disabilities

It is the experience of the MSU RA Program that students with disabilities (as defined by Section 504 of the Rehabilitation Act and the Americans with Disabilities Act) are qualified to study and practice as a RA with the use of reasonable accommodations. To be qualified for admission to the MSU RA Program, individuals must meet the Programs Academic Standards and Standards of Capacity with or without reasonable accommodation. Accommodation is viewed as a means of assisting students with disabilities to meet essential standards by providing them with an equal opportunity to participate in all aspects of each course (reasonable accommodation is not intended to guarantee that students will be successful in meeting course requirements).

Students needing clarification are encouraged to contact the MSU RA Program Director or Disability Support Services. Disability Support Services assessments are confidential, and it is the students' responsibility to submit written documentation to the RA Program Director in a timely manner

Use of Auxiliary Aids and Intermediaries

Students with documented disabilities are provided with accommodations at the Program, which may include involvement of an intermediary or auxiliary aid. No disability can be reasonably accommodated with an aid or intermediary that provides cognitive support, substitutes for essential clinical skills, or supplements clinical and ethical judgment. Thus, accommodations cannot eliminate essential program elements or fundamentally alter the RA program curriculum.

CLINICAL PRECEPTORSHIPS – FOR RA MAJORS

RA clinical sites are located in a wide geographic area and are arranged by the students. Students are responsible for their own transportation, housing, and living expenses during their clinical courses. Additionally, students must also arrange to have Internet access.

RA students MUST always have a radiologist preceptor willing to conduct their clinical education. If an RA student loses his/her radiologist preceptor, the student must notify the MSU RA Clinical Coordinator immediately. Clinical education is suspended until a suitable radiologist preceptor is established for the student.

If the loss of a radiologist preceptor is based on unacceptable, intolerable, or illegal actions by a student which violate the clinical policies set forth in this Program Handbook or which violate any local, state, or federal laws, the student will

be removed from the clinical site and released from the MSU RA Program. Under these circumstances, a student will not be allowed to reenter the RA Program at any time in the future.

RA STUDENT RESPONSIBILITIES

The clinical environment for an RA student will present special challenges. Even though they are certified radiologic technologists, RA students are not expected to function as radiologic technologists during their clinical hours. RA clinical hours are dedicated to learning from the radiologist preceptors and mastering the skills necessary to function as an RA.

There is no standard MSU RA uniform. RA students should dress professionally and practically in accordance with their clinical environments. Any questions regarding appropriate clinical dress should be directed to the radiologist preceptor and the MSU RA Clinical Coordinator.

There is a commonly accepted progression in medically-related education. The first step is academic preparation. The assignments in the RA procedures courses and the on-campus seminar classes are designed to provide this component. RA students will have a minimum of 24 contact clinical hours each week to achieve the remaining steps. The next step is observation. The RA student should carefully observe the activities of the radiologist preceptor, especially those directly related to the RA Clinical Competencies Checklist as well as the more subtle aspects of direct patient care. The third step is assisting the radiologist preceptor, working side by side for the patient's safety. The fourth step is competency evaluation and documentation. At this point, the radiologist preceptor documents that the RA student can perform the specific clinical task competently at the supervision level specified on the checklist. The final step is performance maintenance. RA students are expected to show continued clinical competence by their willingness and ability to repeat previously documented clinical procedures.

RA students are responsible for maintaining all clinical course records including the clinical portfolio. They must communicate regularly with the radiologist preceptor and the MSU RA Clinical Coordinator about their clinical experiences.

MSU RA CLINICAL COORDINATOR RESPONSIBILITIES

Clinical experiences are a component of clinical courses. The MSU RA Clinical Coordinator will coordinate any activities related to clinical rotations. This includes managing all clinical forms and the clinical portfolio. The MSU RA Clinical Coordinator will work with other RA Program Faculty to integrate clinical and didactic information each semester. The MSU RA Clinical Coordinator assigns clinical grades. Contact information will be included on the clinical course syllabus.

RADIOLOGIST PRECEPTOR RESPONSIBILITIES

During clinical experiences, RA students are always under the supervision of a radiologist who determine the capacity of the students to perform any specific functions. Under the radiologist's supervision, the RA students will perform patient assessment, patient management, and selected clinical imaging procedures. Radiologist preceptors are responsible for the safe practice of the RA students.

The clinical activities required by MSU will be updated as needed to comply with or exceed the ARRT certification standards.

Individual state and/or institutional regulations and policies may place additional limitations on the activities and responsibilities authorized for a RA student in a given clinical setting.

Radiologist preceptors are responsible for the RA students' clinical experiences. They will teach students patient management skills, procedures, and image observations to meet the requirements of the RA program. The required clinical competencies are based in general diagnostic radiography. They may also teach students additional skills as needed. They will work directly with students a minimum of 24 clinical hours each week as part of the clinical education course. This clinical time may be divided between patient management, procedures, and image observation. Preceptors will verify students are actively participating in all of their required clinical hours and will evaluate their clinical performance.

Radiologist preceptors will verify clinical competence using the Clinical Competency Evaluations, and evaluate the student's professional development twice each semester. Radiologist preceptors will also verify final summative clinical documentation at the end of the program.

In compliance with ARRT and MSU RA Program requirements, radiologists accept responsibility for the following when they agree to serve as Radiologist Preceptors for MSU RA students:

- Provide input to the RA Program Advisory Committee to ensure program quality (Criterion 3.3)
- Sign a formal written agreement with the MSU RA Program. The agreement must include an authorizing signature from the group practice (Criterion 3.5.4)
- Commit the time and effort to assure the students receive the appropriate depth and scope of clinical education consistent with the ARRT's Role Delineation (Criterion 3.6.2)
- Be willing and able to perform clinical competence assessments (Criterion 3.6.3)
- Complete the documentation of clinical experience and competence required by the ARRT and the MSU RA Program (Criterion 3.6.4)
- Work with the MSU RA Program officials, including the Medical Advisor, to ensure that the medical components of the clinical preceptorship meet acceptable standards (Criterion 3.6.5)
- Verify that clinical activities emphasize the education of the student rather than focus on the productivity of the department (Criterion 3.8.1)
- Commit the minimum number of clinical contact hours with the students required by the program to meet the ARRT and MSU RA Program clinical education requirements (Criterion 3.8.2)
- Commit to the duration of the clinical preceptorship to meet the ARRT and MSU RA Program clinical education requirements (Criterion 3.8.3)

The overall goal of the clinical preceptorship is to meet the ARRT and MSU RA Program clinical education requirements within a period of five (5) semesters. If, however, RA students can not complete all the required clinical competencies within the five (5) semester nominal program length, the program has additional courses available so students can extend their enrollment to complete the program requirements.

TEACHING

Radiologist Preceptors are responsible for the RA students' clinical experiences. They teach students patient management skills, procedures, and image observations to meet the requirements of the MSU RA program. The required clinical competencies are based in general diagnostic radiography. They may also teach students additional skills as needed. They will work directly with students a minimum of twenty-four (24) clinical hours each week as part of the clinical education course. This clinical time may be divided between patient management, procedures, and at least four (4) hours of direct image review. Preceptors will verify that students are actively participating in all their required clinical hours and will evaluate their clinical performance.

LEVEL OF SUPERVISION

During clinical experiences, RA students are always under the **direct** supervision of a radiologist who determines the capacity of the students to perform any specific functions. Direct supervision is defined as the radiologist present in the radiology facility and immediately available to furnish assistance and direction throughout the performance of the procedure, but not required to be present in the room when the procedure is performed.¹ Under direct radiologist supervision, the RA students will perform patient assessment, patient management, and clinical imaging procedures. Best practice for all exams requiring consent includes the radiologist meeting the patient. Inclusion of clinical activities and educational requirements in the RA program does not indicate that all activities may be legally performed in all states nor that the activities, if performed, are eligible for reimbursement under current Centers for Medicare and Medicaid Services (CMS) regulations.

Individual state and/or institutional regulations and policies may place additional limitations on the activities and responsibilities authorized for an RA student in a given clinical setting.

¹This definition of *direct supervision* is based upon that of the CMS.

COMPETENCY/PROFICIENCY

Students will operate under the supervision of the radiologist preceptors until the radiologists determine **competency** is achieved. Clinical competence means the radiologist preceptors are satisfied that the students can perform the procedures or functions independently. Students must document their clinical competency with the Clinical Competency Evaluation Form.

Students must document their clinical **proficiency** through continued and repeated competence with procedures. This will be documented in the clinical portfolio.

REQUIRED VS. ELECTIVE CLINICAL COMPETENCIES

Students are encouraged to participate fully in all procedures during clinical experiences. Radiologist preceptors must verify clinical competence for each required clinical competency identified by the program. Additionally, the radiologist preceptors must verify clinical competence for elective procedures. Elective clinical competencies will vary from student to student depending on the setting and clinical focus.

By the completion of the program, students must demonstrate competence in all required and elective procedure competencies.

RADIATION PROTECTION

It is the goal of this program to keep radiation exposure to students as low as reasonably achievable. NCRP Report # 102 will be used to establish maximum dose values.

The RA clinical coordinator will ensure a radiation monitor available for each student to wear during clinical hours. If a student performs radiographic procedures when not engaged in RA clinical education activities, the radiation monitor which is used for RA clinical education will not be used.

Students will wear their radiation monitor at collar level in front, outside of the protective apron, and will follow the storage policy and other related policies of the clinical site (radiation monitor should remain at site).

The RA clinical coordinator will supply the student with the monthly or quarterly radiation report to place in his/her clinical portfolio.

If a student receives an exposure over a 30-day period that exceeds 300 millirems, the MSU Radiation Safety Officer will conduct an investigation.

Additional general rules concerning radiation monitor use are:

- Radiation monitors are to be worn any time a student is working at the clinical site;
- Radiation monitors should not be placed on or near TVs or heat-producing appliances;
- Radiation monitors should not be exposed to sunlight for an extended period of time or high temperatures such as in automobiles;
- Radiation monitors should not get wet;
- Radiation monitors should not be worn when the student is having medical or dental x-rays performed.

ILLNESS/INJURY DURING CLINICAL

RA students who are injured or become ill (unable to perform duties or contagious) prior to the start of a clinical shift should stay home and not go to the clinical site. He/she should contact the radiologist preceptor and the MSU RA Clinical Coordinator. If a RA student becomes ill at the clinical site, he/she should notify the radiologist preceptor before leaving the facility.

If a RA student is injured at the clinical site, he/she should contact the radiologist preceptor immediately and follow the clinical facility's protocol for on-the-job accidents. This usually involves filing an incident report and being evaluated by a physician in the emergency room or one's own physician. The hospital may not have any responsibility for payment of emergency room charges or any other charges incurred as a result of the injury so the decision to seek treatment is up to the student. The MSU RA Clinical Coordinator should be apprised of the situation as soon as possible.

CLINICAL DOCUMENTATION- STUDENT

FORM CR-1 ARRT Summary of Clinical Experience and Competence Assessments

FORM CR-2 (A-E) ARRT Clinical Competence Assessments

Patient Log Sheet

MSU Clinical Competency Worksheet

ARRT Summative Evaluation Rating Scales

CLINICAL DOCUMENTATION COMPLETED BY THE RA STUDENTS – student role noted by ***bold italics***.

Patient Log Sheet –

RA students must maintain a daily log of all examinations (assisted, and performed) in the Trajecsys student reporting system. The supervising radiologist, procedure performed, date, location, and 5 digits of the patient's identification or exam number must be documented in the log sheet.

Clinical Procedure Competency Evaluations – FORM CR-2 (A-E), MSU Clinical Competency Worksheet

When an RA student feels competent to perform a procedure, he/she will request that the radiologist preceptor complete an ARRT Clinical Competency Evaluation (FORM CR2- (A-E)) and an MSU Clinical Competency Worksheet.

After teaching the student and determining that the student can safely attempt the clinical procedure, the radiologist preceptor will observe and evaluate the student as he/she attempts the clinical competency. The radiologist preceptor will interrupt the procedure being evaluated if a patient's welfare is compromised and/or equipment welfare is questionable.

The MSU RA Clinical Coordinator has the final word in the acceptance or denial of clinical competencies. Competency evaluations must be submitted to the instructor and will contribute to the portfolio grade.

ARRT FORM CR-1

This form is completed by the student as he or she: (a) completes the requisite number of cases for the mandatory and elective procedures; and (b) is evaluated by the radiologist on the mandatory and elective procedures.

The student records the number of cases completed for each mandatory and elective procedure he/she performs.

The student records the date that the competency assessment was completed. Note that the actual competence assessments are completed by a radiologist using ARRT FORM CR-2 (A-E).

The radiologist preceptor and the MSU RA Program Director must verify and sign the bottom of FORM CR-1. This form is submitted to the ARRT at the time of application.

Clinical Experience Evaluation

RA students set clinical goals at the beginning of each semester. They evaluate their progress towards those goals at mid-semester and at the end of the semester. The narrative includes identification of the student's progress meeting clinical goals for that semester, the clinical site's strengths and weaknesses, and the student's impressions of the overall

clinical experience. Results from this evaluation will be used to help identify problem areas and seek improvements. Copies of the Clinical Experience Evaluation should be included in the clinical portfolio.

The radiologist preceptor evaluates students at the midpoint and end of each semester. These evaluations are sent directly to the MSU RA Clinical Coordinator. They constitute a portion of the clinical grade. Appropriate conduct is a broad category encompassing a number of considerations including communication skills, professional and ethical behavior, technical ability and procedural skills, critical thinking skills, acceptance of criticism and willingness to learn, patient/management skills, patient safety/radiation protection practice, patient assessment and documentation, image observation skills, and overall achievement level. The radiologist preceptor may solicit comments from other radiology personnel concerning the student's overall performance.

Clinical Portfolio

RA students submit clinical paperwork AND maintains the ARRT portfolio throughout the program.

Specific guidelines for the submitting clinical paperwork will be provided in the clinical course syllabi. This will include, but is not limited to, documentation such as Clinical Goals, Patient Log Sheets, Clinical Competency Evaluations, Clinical Experience Evaluation, Case Studies, Self-Reported Radiation Exposure, etc. It may also include photographs and other artifacts of the student's clinical experience. The clinical paperwork will be submitted to the MSU RA Clinical Coordinator for grading at the end of each semester. The ARRT portfolio must be available and current upon request by the MSU RA Clinical Coordinator.

RA students must maintain all requested program summaries including: FORM CR-1 and ARRT Summative Evaluation Rating Scales

ARRT Summative Evaluation Rating Scales

The purpose of this form is to obtain from the radiologist preceptor a final overall evaluation of the student's clinical skills as demonstrated during his or her preceptorship. The form should be completed by the radiologist preceptor during the final stages of the preceptorship and ***included in the student's final clinical portfolio. To be eligible for certification, the student must receive a rating of three or higher in each skill area.***

CLINICAL DOCUMENTATION- RADIOLOGIST PRECEPTOR

FORM CR-1 ARRT Summary of Clinical Experience and Competence Assessments

FORM CR-2 (A-E) ARRT Clinical Competence Assessments

Clinical Experience Evaluations

ARRT Summative Evaluation Rating Scales

CLINICAL DOCUMENTATION COMPLETED BY THE RADIOLOGIST PRECEPTOR – radiologist role noted by ***bold italics.***

Clinical Procedure Competency Evaluations – FORM CR-2 (A-E), FORM C

When an RA student feels competent to perform a procedure, he/she will request that the radiologist preceptor complete an ARRT Clinical Competency Evaluation (FORM CR2).

After teaching the student and determining the student can safely attempt the clinical procedure, the radiologist preceptor will observe and evaluate the student as he/she attempts the clinical competency. The radiologist preceptor will interrupt the procedure being evaluated if a patient's welfare is compromised and/or equipment welfare is questionable.

The MSU RA Clinical Coordinator has the final word in the acceptance or denial of clinical competencies. Competency evaluations must be submitted to the RA Clinical Coordinator and will contribute to the portfolio grade.

ARRT CR-1 Form

This form is completed by the student as he/she (a) completes the requisite number of cases for the mandatory and elective procedures and (b) is evaluated by a radiologist on the mandatory and elective procedures.

The student records the number of cases completed for each mandatory and elective procedure he/she performs. The student records only the date the competency assessment was completed. ***The preceptor and program director must verify and sign the bottom of Form CR-1***

ARRT Summative Evaluation Rating Scales

The purpose of this form is to obtain from the radiologist preceptor a final overall evaluation of the student's clinical skills as demonstrated during his or her preceptorship. ***The form should be completed by the radiologist preceptor during the final stages of the preceptorship and included in the student's final clinical portfolio. To be eligible for certification, the student must receive a rating of three or higher in each skill area.***

Clinical Experience Evaluation

RA students set clinical goals at the beginning of each semester. They evaluate their progress towards those goals at mid-semester and at the end of the semester. The narrative includes identification of the student's progress meeting clinical goals for that semester, the clinical site's strengths and weaknesses, and the student's impressions of the overall clinical experience. Results from this evaluation will be used to help identify problem areas and seek improvements. Copies of the Clinical Experience Evaluation should be included in the clinical portfolio.

The radiologist preceptor evaluates students at the midpoint and end of each semester. These evaluations are sent directly to the MSU RA Clinical Coordinator. They constitute a portion of the clinical grade. Appropriate conduct is a broad category encompassing a number of considerations including: communication skills, professional and ethical behavior, technical ability and procedural skills, critical thinking skills, acceptance of criticism and willingness to learn, patient/management skills, patient safety/radiation protection practice, patient assessment and documentation, image observation skills, and overall achievement level. The radiologist preceptor may solicit comments from other radiology personnel concerning the students' overall performance.

Clinical Portfolio

RA students submits clinical paperwork ***AND*** maintains the ARRT portfolio throughout the program.

Specific guidelines for the submitting clinical paperwork will be provided in the clinical course syllabi. This will include, but is not limited to, documentation such as Clinical Goals, Patient Log Sheets, Clinical Competency Evaluations, Clinical

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Experience Evaluation, Case Studies, Radiation Exposure, etc. It may also include photographs and other artifacts of the student's clinical experience. The clinical paperwork will be submitted to the MSU RA Clinical Coordinator for grading at the end of each semester. The ARRT portfolio must be available and current upon request by the MSU RA Clinical Coordinator.

RA students must maintain all requested program summaries including: FORM CR-1 and ARRT Summative Evaluation Rating Scales

APPENDIX G

ACKNOWLEDGEMENT AND SIGNATURE

MSRS Program Handbook Acknowledgement

My signature below indicates I read and understand the contents of this handbook. I agree to abide by the policies and procedures outlined and understand I am responsible for adhering to them.

Print Name

Signature

Date

HIPAA Compliance Statement

I reviewed the [MSU Gunn College of Health Sciences and Human Services online HIPAA presentation](#) and agree to comply with it. I will respect and protect the confidentiality of all materials reviewed and used during this learning experience.

Print Name

Signature

Date



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