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Introduction

Welcome

Welcome to the Medical Imaging Programs at the Maine College of Health Professions! You are now a member of a small group of students who are about to begin an educational program dedicated to educating medical imaging technologists of high professional and technical caliber. The Medical Imaging Programs include:

- Bachelor of Science Degree in Medical Imaging
- Bachelor of Science Degree in Healthcare Administration
- Clark F. Miller Radiologic Technology Program (Associate Degree)
- Computed Tomography (Advanced Certificate)
- Diagnostic Medical Sonography (Advanced Certificate)
- Mammography (Advanced Certificate)

The College you have entered will allow you to learn, but you must be responsible to use the opportunity to your advantage. The college faculty and staff of the medical imaging department are always available to help you and facilitate your learning process. We expect you to make the best of all learning opportunities. We cannot learn for you.

Students are responsible for abiding by the policies and procedures in the College-Wide Student Handbook, available to all students on the Student Handbook tab of the website. The information in this Medical Imaging Student Handbook will complement the information found in the College-Wide Student Handbook and provide details specific to students enrolled in the Medical Imaging Programs.

The purpose of this handbook is to provide you with a guide to program policies, procedures, philosophy, organization, and other information. You should be able to find answers to many of your questions. If you need further information, please contact the Dean, program officials, or faculty. The medical imaging students are responsible for reading, understanding, and abiding by the policies and procedures presented.

The College reserves the right, with due notice, to change or suspend any portion of the information contained in this student handbook.

Accreditation

Radiologic Technology

MCHP's Associate of Applied Science in Radiologic Technology is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). The JRCERT promotes excellence in education and enhances the quality and safety of patient care through the accreditation of educational programs. The JRCERT is the only agency recognized by the United States Department of Education (USDE) and Council for Higher Education Accreditation (CHEA) for the accreditation of traditional and distance delivery educational programs in radiography, radiation therapy, magnetic resonance, and medical dosimetry. Programs accredited by the JRCERT must demonstrate that they are in substantial compliance with the relevant JRCERT accreditation standards. The JRCERT Standards are located on the JRCERT website (https://www.jrcert.org/) or by contacting the JRCERT. Any student with concerns about non-compliance with the Standards may contact the JRCERT.

The Mission Statement of the JRCERT is to promote excellence in education through the application of professional standards that endorse academic integrity and quality, as well as exemplary healthcare, through the accreditation of educational programs in radiography, radiation therapy, magnetic resonance, and medical dosimetry (https://www.jrcert.org/about-jrcert/).

The contact information for the JRCERT is:

The Joint Review Committee on Education in Radiologic Technology
20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182
312-704-5300, mail@jrcert.org

Diagnostic Medical Sonography

MCHP's Diagnostic Medical Sonography program's concentrations (Abdominal, Extended and Obstetrics and Gynecology) are accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). CAAHEP is a programmatic postsecondary accrediting agency recognized by the Council for Higher Education Accreditation (CHEA). CAAHEP carries out its accrediting activities for DMS programs in cooperation with the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS), a review Committee on Accreditation. The CAAHEP Board of Directors acts upon the recommendations of the JRC-DMS, confirming that appropriate procedures have been followed and that accreditation standards are being applied consistently and equitably when assessing applicant educational programs.

The mission of CAAHEP is to provide value to stakeholders by setting standards for quality assurance in health professions education. The mission of the JRC-DMS is to ensure quality sonography education that serves the public.

The contact information for CAAHEP is:

Commission on Accreditation of Allied Health Education Programs
9355-113th St. N, #7709 Seminole, FL 33775
T: (727)-210-2350 | F: 727-210-2354 | E: mail@caahep.org | https://www.caahep.org/

Advisory Council Members

The Medical Imaging Advisory Council is comprised of individuals from the medical imaging community: clinical sites, students, and faculty. The Advisory Council will work together in partnership to:

- Strengthen and improve relationships within the medical imaging community.
- Help to inform the direction of the medical imaging programs by identifying trends and innovations in medical imaging and reviewing program outcomes.
- Provide guidance, resources, and support for the operation of the programs and the faculty.
- Communicate relevant information, needs, and concerns to appropriate stakeholders.
- Support the programs through various activities, including assisting in publicizing and promoting the Maine College of Health Professions Medical Imaging Programs and efforts.

MCHP Bachelor's Degree Options

MCHP offers several options for graduates wishing to pursue opportunities for a bachelor's degree. The BS Degree in Medical Imaging allows students to complete courses in medical imaging, healthcare administration, and general education. The BS in Healthcare Administration degree allows students to complete online courses in healthcare administration and general education. Interested individuals should contact the Dean for more information.

- Dr. Monika Bissell, President, Maine College of Health Professions
  - Acting Vice President of Academic and Student Affairs
- Julie Branagan, PhD, R.T.(R)(ARRT), Dean of Medical Imaging, Radiologic Technology Program Director
- Sarah Harradon, EdD, R.T. (R)(ARRT), Associate Dean of Medical Imaging, Radiologic Technology Clinical Coordinator
- Danielle Brown, M.Ed., RDMS(AB, BR, FE, OB/GYN), RVT, R.T. (R)(ARRT), Director of Diagnostic Medical Sonography
- Tiffany Hamilton, RDMS (AB, OB/GYN), R.T. (R)(ARRT), Diagnostic Medical Sonography Clinical Coordinator
- Adjunct Faculty
- Clinical Preceptors and Instructors at the Clinical Affiliate Sites
- Medical Imaging Clinical Staff at the Clinical Affiliate Sites
- Medical Imaging Students

MCHP Mission and Vision

College Mission

The Maine College of Health Professions enriches lives through offering outstanding education in the health professions, inspiring student success and lifelong learning. We emphasize interpersonal, inter-professional, and community collaboration, and we prioritize excellence in patient care, student learning, and scholarship.

College Vision

Maine College of Health Professions will be the College of choice in providing exceptional health professions education in the State of Maine and beyond. We will be known for our supportive and effective educational approach that focuses exclusively on healthcare professions and provides multiple access points to professional advancement. Our graduates will be recognized as leaders in their fields, improving the health and well-being of their communities.

Program Mission, Goals, and Philosophy

Radiologic Technology Program

The mission of the Clark F. Miller Radiologic Technology Program is to:

- Encourage motivated individuals who are dedicated to pursuing excellence in Radiologic Technology;
- Educate individuals to be competent technologists who demonstrate critical thinking and effective communication skills, highlighting interprofessional collaboration;
- Provide an outstanding Radiologic Science education, including all modalities of Medical Imaging with a primary focus on Diagnostic Radiography; and
- Offer educational experiences in the classroom, the campus laboratory, and in a variety of clinical settings with emphasis on exceptional patient care.

Student Goals and Learning Outcomes

Goal 1: Execute effective communication
Student Learning Outcomes:

A. Students will assess non-verbal, verbal, and written communication techniques based on patient care situations. (Evaluate)
B. Students will evaluate non-verbal, verbal, and written communication techniques to enhance team functionality (Evaluate)

Goal 2: Demonstrate professionalism
Student Learning Outcomes:

A. Students will demonstrate ethical behavior and professional demeanor as outlined by the ARRT. (Apply)
B. Students will investigate continuing education requirements. (Analyze)
C. Students will compare resources for professional development (Evaluate)

Goal 3: Demonstrate critical thinking and metacognition
Student Learning Outcomes:

A. Students will assess their exam practices to meet the needs of each patient. (Create)
B. Students will evaluate radiographic images for quality and clarity. (Evaluate)
C. Students will reflect on their biases and ways to mitigate the potential negative effects to promote quality patient care. (Evaluate)

Goal 4: Demonstrate clinical competency
Student Learning Outcomes:

A. Students will produce quality radiographic images. (Apply)
B. Students will determine the appropriate protocol based on patient considerations, safety, and provider order. (Evaluate)

Program Goals

1. Students will successfully complete the Program.
2. Graduates will pass the ARRT examination.
3. Graduates will be satisfied with their education.
4. Graduates who are actively seeking employment will be employed in Medical Imaging.
5. Employers will be satisfied with the quality of graduates.

Computed Tomography Program

The mission of the Computed Tomography Program is to:

- Encourage motivated individuals who are dedicated to pursuing excellence in Computed Tomography;

- Educate individuals to be competent computed tomography technologists who demonstrate critical thinking and effective communication skills, highlighting interprofessional collaboration;
- Provide an outstanding education in Computed Tomography; and
- Offer educational experiences in the classroom and in a variety of clinical settings with emphasis on exceptional patient care.

Student Learning Outcomes

I. Execute effective communication
   A. Students will assess non-verbal, verbal, and written communication techniques based on patient care situations. (Evaluate)
   B. Students will evaluate non-verbal, verbal, and written communication techniques to enhance team functionality (Evaluate)
II. Demonstrate professionalism
   A. Students will demonstrate ethical behavior and professional demeanor as outlined by the ARRT. (Apply)
   B. Students will investigate continuing education requirements. (Analyze)
   C. Students will compare resources for professional development (Evaluate)
III. Determine the needs of diverse populations
   A. Students will reflect on their biases and ways to mitigate the potential negative effects to promote quality patient care. (Evaluate)
IV. Demonstrate critical thinking and metacognition
   A. Students will assess their exam practices to meet the needs of each patient. (Create)
   B. Students will evaluate radiographic images for quality and clarity. (Evaluate)
V. Demonstrate clinical competency
   A. Students will produce quality radiographic images. (Apply)
   B. Students will determine the appropriate protocol based on patient considerations, safety, and provider order. (Evaluate)

Program Goals

1. Students will successfully complete the Program.
2. Graduates will pass the ARRT examination.
3. Graduates will be satisfied with their education.
4. Graduates who are actively seeking employment will be employed in Medical Imaging.
5. Employers will be satisfied with the quality of graduates.

Diagnostic Medical Sonography Program

Minimum Expectations: To prepare competent entry-level sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for the abdominal sonography-extended and obstetrics and gynecology concentrations (JRC-DMS).

The mission of the Diagnostic Medical Sonography Program is to:

- Encourage motivated individuals who are dedicated to pursuing excellence in Diagnostic Medical Sonography;
- Educate individuals to be competent sonographers who demonstrate critical thinking and effective communication skills, highlighting interprofessional collaboration;
- Provide an outstanding education in Diagnostic Medical Sonography, and
- Offer educational experiences in the classroom, the campus laboratory, and in a variety of clinical settings with emphasis on exceptional patient care.

Student Learning Outcomes:

I. Execute effective communication
   A. Students will assess non-verbal, verbal, and written communication techniques based on patient care situations (Evaluate)
   B. Students will evaluate non-verbal, verbal, and written communication techniques to enhance team functionality (Evaluate)
II. Demonstrate professionalism
   A. Students will demonstrate ethical behavior and professional demeanor as outlined by the SDMS (Apply)
   B. Students will investigate continuing education requirements (Analyze)
   C. Students will compare resources for professional development (Evaluate)
III. Determine the needs of diverse populations
   A. Students will reflect on their biases and ways to mitigate the potential negative effects to promote quality patient care (Evaluate)
IV. Demonstrate critical thinking and metacognition

A. Students will assess their exam practices to meet the needs of each patient. (Evaluate)
B. Students will evaluate ultrasound images for quality and clarity (Evaluate)
C. Students will assess prior imaging in different modalities to better evaluate the patient (Evaluate)

V. Demonstrate clinical competency
A. Students will produce quality ultrasound images (Apply)
B. Students will determine the appropriate protocol based on patient considerations, safety, and provider order (Evaluate)

Program Goals

1. Students will successfully complete the Program.
2. Students will successfully pass the ARDMS Sonography Principles and Instrumentation (SPI) examination.
3. Graduates will successfully pass the ARDMS Abdomen (AB) examination.
4. Graduates will successfully pass the ARDMS Obstetrics and Gynecology (OB/GYN) examination.
5. Graduates will become Registered Diagnostic Medical Sonographers (RDMS).
6. Graduates will be satisfied with their education.
7. Graduates who are actively seeking employment will be employed in Medical Imaging.
8. Employers will be satisfied with the quality of graduates.

Mammography Program

The mission of the Mammography Program is to:

- Encourage motivated individuals who are dedicated to pursuing excellence in Mammography;
- Educate individuals to be competent mammographers who demonstrate critical thinking and effective communication skills, highlighting interprofessional collaboration;
- Provide an outstanding education in Mammography; and
- Offer educational experiences in the classroom and in a variety of clinical settings with emphasis on exceptional patient care.

Student Learning Outcomes

I. Execute effective communication
1. Students will assess non-verbal, verbal, and written communication techniques based on patient care situations. (Evaluate)
2. Students will evaluate non-verbal, verbal, and written communication techniques to enhance team functionality (Evaluate)

II. Demonstrate professionalism
A. Students will demonstrate ethical behavior and professional demeanor as outlined by the ARRT. (Apply)
B. Students will investigate continuing education requirements. (Analyze)
C. Students will compare resources for professional development (Evaluate)

III. Determine the needs of diverse populations
A. Students will reflect on their biases and ways to mitigate the potential negative effects to promote quality patient care. (Evaluate)

IV. Demonstrate critical thinking and metacognition
A. Students will assess their exam practices to meet the needs of each patient. (Create)
B. Students will evaluate radiographic images for quality and clarity. (Evaluate)

V. Demonstrate clinical competency
A. Students will produce quality radiographic images. (Apply)
B. Students will determine the appropriate protocol based on patient considerations, safety, and provider order. (Evaluate)

Program Goals

1. Students will successfully complete the Program.
2. Graduates will pass the ARRT examination.
3. Graduates will be satisfied with their education.
4. Graduates who are actively seeking employment will be employed in Medical Imaging.
5. Employers will be satisfied with the quality of graduates.

Bachelor of Science Degree in Healthcare Administration

Description:

The Bachelor's Degree Program in Healthcare Administration will provide a pathway of professional growth for individuals with professional healthcare certification or an Associate Degree in the health sciences to advance their studies in healthcare administration. The Program will provide the knowledge, skills, and abilities in leadership for graduates to work as leaders in the healthcare environment and function as vital members of the healthcare team.

Student Learning Outcomes

I. Develop the skills necessary to become a leader within a diverse healthcare setting.
II. Utilize evidence-based research to contribute to excellence in healthcare.
III. Investigate advanced, current, and emerging practices and technologies in a healthcare setting.
IV. Apply business acumen essential to healthcare infrastructure and organizational processes.

Bachelor of Science Degree in Medical Imaging

Description:

The Bachelor's Degree in Medical Imaging will provide a pathway of professional growth for radiographers, radiation therapists, or nuclear medicine technologists to advance their studies in medical imaging. The Program will provide the knowledge, skills, and abilities in leadership, as well as completion of a desired medical imaging concentration. Graduates will work as leaders within medical imaging and function as vital members of the healthcare team.

Student Learning Outcomes

I. Develop the skills necessary to become a leader within a diverse healthcare setting.
II. Utilize evidence-based research to contribute to excellence in healthcare.
III. Investigate advanced, current, and emerging practices and technologies in a healthcare setting.
IV. Demonstrate knowledge that supports advanced certification in medical imaging.

Medical Imaging Programs' Philosophy

The art and science of medical imaging is a continually challenging and expanding segment of medicine that requires a medical imaging technologist to have the motivation and education to practice as an active member of the healthcare community.

The Medical Imaging Programs at the Maine College of Health Professions are dedicated to the principle of providing an educational philosophy that coordinates a broad academic program with well-balanced clinical experiences.

The Medical Imaging Programs are designed to prepare the student to provide services with consideration for human dignity and to apply only those methods of technology founded upon scientific principles.

Students are expected to participate in the educational process by conducting themselves in a manner compatible with the dignity of their profession. They shall exercise and accept responsibility commensurate with their level of training for discretion and judgment in the performance of their activities.

From their inception, the Medical Imaging Programs at the Maine College of Health Professions have been dedicated to the goal of educating Medical Imaging Technologists in the art of providing the physician with the information required to diagnose disease and ease the pain and suffering of humanity.

Master Plan

The Master Plan for the Medical Imaging Programs consists of policies and procedures to govern student activity. The Master Plan is available, upon request of the Dean, for review by students, faculty, and administrators. The Master Plan includes the following:

- Accreditation
- Mission/Program Goals/Student Learning Outcomes/Program Philosophy
- Organizational Chart
- Curriculum
- Course Syllabi
- Class Schedule

- Clinical CompetencyClinical Schedules
- College Catalog
- College-Wide Student Handbook
- Medical Imaging Student Handbook
- Requirements for Graduation
- Outcomes Assessment Plan
- Confidentiality of Patient Information
- Faculty
    - Job Descriptions
    - Faculty Handbook – available on the MCHP staff portal
    - MCHP Policies and Procedures – available on the MCHP staff portal
    - CMH Policies and Procedures – available on the CMHC portal
    - Employee Educational Assistance – available on the CMHC portal

Academics

Disciplinary Actions

When warranted, disciplinary action will be taken. The severity of the infraction, determined at the discretion of the Dean, will dictate the action taken.

In general, the student will receive two written warnings and then be considered for probation or dismissal.

Any student not meeting the probation terms will be dismissed from the Program. A student may be placed on probation once during the Program except in exceptional circumstances.

When warranted, for serious infractions, the Dean may, in consultation with the Chief Academic Officer, automatically take disciplinary actions, including dismissal of the student from the Program.

Grievance Procedure

Students have the right to fair treatment by the Faculty and Staff of the College. Students who feel they have been treated unfairly may follow the College's student grievance procedure as stated in the College-Wide Student Handbook. All students are encouraged to resolve problems informally, if possible, before initiating the fair treatment procedure.

Program Completion

Upon program completion, graduates are eligible to apply to take the national certification examination for their specialty area of medical imaging. Once nationally certified, graduates may apply for professional licensure in Maine (Exception: registered sonographers are not required to hold a professional Maine license to perform sonography).

Graduates may work in a variety of settings. Imaging jobs are located in hospitals, outpatient centers, and specialty clinics. They may continue their education in a specialized area of medical imaging or may obtain an advanced degree.

Professional Organizations

Radiography students are encouraged to join the Maine Society of Radiologic Technologists and the American Society of Radiologic Technologists. Sonography students are encouraged to join the Maine Sonographers Association and the Society of Diagnostic Medical Sonography.

Applications are available upon request from the Dean.

Students are encouraged to attend society meetings, participate in student competitions, become involved in society activities, and pursue continuing educational opportunities.

Scholastic Standards

The Scholastic Standards are detailed in the College-Wide Student Handbook. The handbook is available to students on the "Current Students" page on the college website https://www.mchp.edu/current-students/.

Clinical

Care of Relatives by Students

No student shall assume responsibility for the care of a relative hospitalized or being cared for as an outpatient in any facility utilized for clinical experience.

Clinical Affiliations

The Medical Imaging Programs have clinical affiliations with the following facilities:

Bridgton Hospital in Bridgton, all medical imaging programs

Central Maine Healthcare Orthopedics in Auburn, RAD

Central Maine Medical Center in Lewiston, all medical imaging programs

Coastal Women's Healthcare in Scarborough, DMS

Down East Community Hospital in Machias, all medical imaging programs - More than 1 hour from MCHP

InterMed in South Portland, DMS, MAM

Littleton Regional Healthcare in Littleton, NH, MAM – More than 1 hour from MCHP

Maine General Medical Center in Augusta, all medical imaging programs

Maine General Medical Center in Waterville, CT, DMS, MAM

MaineHealth Franklin Hospital in Farmington, all medical imaging programs

MaineHealth Maine Medical Center in Biddeford, all medical imaging programs

MaineHealth Maine Medical Center in Portland, DMS

MaineHealth Memorial Hospital in North Conway, NH, DMS, RAD – More than 1 hour from MCHP

MaineHealth Mid Coast Hospital in Brunswick, all medical imaging programs

MaineHealth Obstetrics and Gynecology in Rockport, DMS – More than 1 hour from MCHP

MaineHealth Orthopedics and Sports Medicine in Biddeford, RAD

MaineHealth Pen Bay Hospital in Rockport, DMS, RAD – More than 1 hour from MCHP

MaineHealth Stephens Hospital in Norway, all medical imaging programs

MaineHealth Walk-In Care in Brunswick, RAD

MaineHealth Waldo Hospital in Belfast, DMS – More than 1 hour from MCHP

Maine Medical Partners Women's Health in Portland, DMS

Northeastern Vermont Regional Hospital in St. Johnsbury, VT, RAD – More than 1 hour from MCHP

Northern Light AR Gould Hospital in Presque Isle, MAM, RAD – More than 1 hour from MCHP

Northern Light Blue Hill Hospital, DMS - More than 1 hour from MCHP

Northern Light Eastern Maine Medical Center in Bangor, CT, DMS – More than 1 hour from MCHP

Northern Light EMMC Maternal-Fetal Medicine, DMS - More than 1 hour from MCHP

Northern Light Maine Coast Hospital, DMS, RAD – More than 1 hour from MCHP

Northern Light Mayo Hospital in Dover-Foxcroft, DMS - More than 1 hour from MCHP

Northern Light Mercy Hospital in Portland, all medical imaging programs

Northern Light Mercy Orthopedics in Falmouth, RAD

Northern Light Mercy Walk-In Care in Windham & Gorham, RAD

Northern Maine Medical Center in Fort Kent, RAD – More than 1 hour from MCHP

Portsmouth Regional Hospital in Portsmouth, NH, CT - More than 1 hour from MCHP

Redington-Fairview General Hospital in Skowhegan, DMS

Rumford Hospital in Rumford, all medical imaging programs

St. Joseph's Hospital in Bangor, CT, DMS - More than 1 hour from MCHP

St. Mary's Center for Orthopaedics in Auburn, RAD

St. Mary's Regional Medical Center in Lewiston, all medical imaging programs

St. Mary's Urgent Care in Auburn, RAD

York Hospital in York, CT - More than 1 hour from MCHP

Students will be assigned to clinical rotations on a rotational basis, to be determined by the Clinical Coordinator. Student clinical schedules will be posted at least one month before the semester rotations begin.

Students are expected to abide by all policies and procedures at the assigned clinical facility. The location of these policies will be identified during the orientation to the facility.

Clinical Performance Assessment

Students are evaluated in the clinical practicum component of the curriculum on an ongoing basis. Supervising Technologists complete weekly clinical evaluations on the students' performance. Supervising Technologists complete student clinical competency evaluations each semester as specified by the clinical syllabi.

A midterm and final grade report is available to students via the student information system (SIS). To progress in the clinical area, students must meet the guidelines and required components of the clinical course. Students must maintain a minimum 2.0 GPA in the clinical practicum portion of the curriculum. At midterm and the end of the semester, a student advisor will meet with the student whose GPA falls below 2.0 or, if the faculty is concerned with student progress, to formulate an improvement plan. Refer to the Academic Warning and Academic Probation Policies in the College-Wide Student Handbook.

Co-Curricular Requirement – Interprofessional Education

All associate degree and certificate programs in Medical Imaging require the completion of assigned interprofessional education experiences every semester. All Bachelor’s Degree programs require completion of at least one course in interprofessional practice.

CPR Certification

Each student who participates in clinical practice is responsible for continuous CPR certification. CPR certification must be a Basic Life Support Provider Course for the Healthcare Professional through the American Heart Association or the American Red Cross. The student must upload documentation of CPR status to the College compliance document tracker program. If CPR certification expires, the student cannot attend clinical practice until the certification is active again.

Criminal Background Checks

Criminal background checks are required for all students enrolled in clinical-based Medical Imaging Programs. Students will pay for the background checks directly to the company performing the background check.

The student may be disqualified from enrollment if the background check reveals a relevant conviction.

Electronic Access to HIPAA-Protected Patient Information

Students are strictly prohibited from accessing any electronic patient health records unless they have been granted explicit permission and have completed all required HIPAA training and education at the clinical site. Unauthorized access to protected health information (PHI) is a serious violation of federal law and institutional policy, and may result in disciplinary action, removal from the clinical site, or legal consequences.

Students may not access patient records on any computer other than a network computer associated with the clinical site to which they are assigned. Using personal computers or other electronic devices to access patient records is forbidden.

Any student in violation of accessing electronic patient records will be dismissed from the Maine College of Health Professions.

Student Exposure to Blood & Body Fluids

Purpose

1. To provide guidelines for students exposed to blood or body fluids.
2. To define the term exposure as it applies to this policy as "a person's contact with any bodily substances from another human being."

Procedure for the Exposed Student to Follow Immediately

If you experience: An exposure to blood or body fluids, such as a needle stick, splash of blood or body fluid onto or into mucous membranes (eyes, mouth, etc.), or open skin, or other blood or body fluid exposure, you must:

1. Wash the affected area with soap and water **immediately**.
2. Flush mucous membranes with water **immediately**.
3. Notify your supervisor/instructor **immediately after washing and flushing**.
4. Have your supervisor/instructor **immediately notify** the supervisor so that the source information can be collected in a timely fashion.
5. Report **immediately** to the facility's occupational health department or to the Emergency Department. The student's accident insurance may be used to defray expenses related to this incident.
6. The supervisor/instructor must fill out an Incident Report **immediately** according to the clinical site policy. **Make sure the brand of needle/sharp is identified on that report. *OSHA requires it.***

By following these steps, you will receive appropriate treatment at the appropriate time.

Early intervention is imperative. For your safety and well-being, do not wait to report an exposure. Appropriate and timely interventions will begin as soon as you report the exposure. **Report blood and body fluid exposures immediately.**

Medical Imaging Clinical Attendance

The College is founded upon a commitment to learning on the part of both faculty and students. When students accept membership in the educational community of this College, they also accept responsibility and accountability to be present for all required teaching and learning activities.

Clinical experience includes time scheduled in a designated patient care area, clinical post-conference, interprofessional education, or an alternative clinical experience.

Students will attend clinical experiences as scheduled. Good work habits must be formulated early and practiced. Proper attendance in the medical imaging program allows students the opportunity to learn at the designated level and reinforces good work habits of accountability to patients and future employers. Medical Imaging students demonstrate enthusiasm in their education by being ready and available when scheduled.

Students are scheduled for a specific number of educational hours each semester as part of their clinical practicum. Clinical competencies are assigned each semester, as outlined in the Medical Imaging Student Handbook. Students must complete the required clinical competencies assigned during the semester.

Students document clinical attendance by clocking in and out of clinical rotations through the online clinical documentation platform Trajecsys (www.trajecsys.com**). When the student is clocked into the clinical site, they must be** in the clinical area actively participating in the clinical rotation (aside from scheduled breaks).

Clinical Absences

Students will be allotted clinical absences each semester as follows:

- 240 hours or fewer scheduled clinical hours/semester = 8 hours of clinical absence
- Greater than 240 clinical hours/semester = 16 hours of clinical absence
  For Example:
  - RAD 160 requires 240 clinical hours; therefore, a student is allotted 8 hours of clinical absence
  - RAD 180 requires 360 clinical hours; therefore, a student is allotted 16 hours of clinical absence
  - DMS 415 requires 480 clinical hours; therefore, a student is allotted 16 hours of clinical absence

Clinical absences above the allotted time must be made up to complete the clinical course. Excessive clinical absences cannot be made up until after the semester has ended and will result in an incomplete grade for the clinical course.

Students are responsible for notifying the clinical site and clinical coordinator of a clinical absence before the scheduled rotation. Students must follow the program-specific clinical absence notification process.

Scheduled Time Off

Students should strive to schedule appointments outside of program hours. Any absences without one week's notice will be classified as unscheduled. Refer to the unscheduled absence section below for more information.

Students may be scheduled for weekend clinical rotations. Due to these rotations' unique nature and limited frequency, students may not use their allotted clinical absences for weekend rotations.

Unscheduled Absence

An unscheduled absence is defined as an absence without one week's notice. Documentation of three or more absences within one semester will result in a written conference.

Late Absences or Early Departure

Students are expected to be on time for clinical rotations and fulfill all scheduled hours. Late absences and early departures of five minutes or more will be monitored to track poor attendance trends. Documentation of three or more late absences or early departures will result in a written conference.

Long Term Clinical Absence

Once during the duration of the program, in the case of extended illness or family catastrophe resulting in five or more consecutive calendar days missed, the student will be excused from clinical during this period (up to five clinical days). In the case of extended illness, the student must present a note from the provider to the Dean justifying the need for the excused absence. For requests for excused absence due to a family catastrophe, the student should request leave from the Dean.

Inclement Weather

Students will abide by the College's Inclement Weather Policy.

In addition to college closures, Medical Imaging Students will be allotted 16 hours annually to be used for clinical time missed due to extreme inclement weather. Students determine that travel is unsafe and follow the procedure for notification of absence to the College and the clinical site. Use of inclement weather time includes missing an entire clinical day, arriving late, or early departure due to inclement weather. Any hours not used will be forfeited.

Unauthorized Absence

An unauthorized absence results when a student fails to notify the College and the clinical site of their inability to report as scheduled for a clinical experience. Any unauthorized absence will result in disciplinary action. Unauthorized absence for five continuous days may result in the student's immediate dismissal.

Notes:

- Students will document any absence from the clinical experience in Trajecsys, stating the reason for the absence.

Student Clinical Dress Code

Medical Imaging students will follow the MCHP Clinical Dress Code Policy located in the College-Wide Student Handbook.

Professional Ethics and Conduct

Medical Imaging Students share the responsibility of observing professional ethics.

Medical Providers (physicians, physician assistants, and nurse practitioners) alone have the professional and legal right to diagnose and treat illnesses and injuries.

All information concerning patients or the business of the clinical education setting shall be held in strict confidence and not be discussed with persons not involved in a patient's care.

Students should retrieve patients from a waiting room or public area while considering patient confidentiality and clinical site procedures. In general, call patients from the waiting room or public area by first name and last initial. The student will confirm the patient's last name in a private location if two patients respond. Students are to ensure they have the correct patient for the proper exam. Once in the exam room, students must use at least two identifiers to confirm a patient's complete identity (ask the patient to state the entire first and last name and the date of birth). Students must ensure the patient's clinical symptoms correlate with the provider's order. Students will inform the supervising technologist of any discrepancy in the exam order so the provider can clarify the order before the imaging exam begins.

Students must address patients (except children) by their title and last name in the patient care area (i.e., Mr. Smith).

Students must address physicians by their titles and last names in all work areas (i.e., Dr. Jones).

Students who make disreputable or derogatory comments concerning the clinical education setting policies, practices, or personnel, or who breach patient confidentiality, will be dismissed from the Program at the discretion of the Dean in consultation with the Clinical Coordinator and Chief Academic Officer.

Student Clinical hours

Most student clinical hours are scheduled during the weekdays and typically consist of eight-hour shifts. Radiologic technology students must also complete evening and weekend clinical rotations. The evening rotation hours range from 12:00 pm – 8:00 pm to 3:00 pm – 11:00 pm. The Clinical Coordinator determines the clinical rotation and hour schedule based on adequate supervision, clinical experience, volume of procedures, and clinical course requirements.

Students are expected to record clinical attendance daily through the online clinical document tracking system Trajecsys (www.trajecsys.com). The clinical coordinator monitors student attendance and clinical hours to identify poor attendance patterns.

Students are allotted a 30-minute lunch break during the clinical day. The supervising technologist determines the break time, which may vary based on patient exams. Students are expected to take a lunch break each day and cannot be forfeited for an earlier release time.

Students will usually have two 15-minute break periods as the schedule permits, one break in the morning and one in the afternoon; however, there may be times when the clinical experience may not permit this.

Absence for any reason other than illness requires the approval of the Clinical Coordinator or Dean. Unexcused absence from a clinical or classroom assignment will result in disciplinary action.

Off-Hour Clinical Rotations

The off-hour clinical rotations provide a specific clinical experience requiring critical thinking strategies (i.e., trauma, unscheduled). The schedule for evening and weekend coverage will be closely adhered to. The clinical rotation schedule is distributed with ample notice, and students are expected to plan around the scheduled clinical assignments.

A professional atmosphere must always be maintained in the clinical setting, including weekend and evening rotations. Students must adhere to all clinical policies during off-shift hours (i.e., clinical supervision, attendance, dress code). The use of personal electronic devices in patient care areas is forbidden.

Due to the limited number of weekend assignments, students may not use their allotted clinical semester time to take a weekend rotation off. However, under extenuating circumstances, students desiring to change weekend assignments must obtain permission from the Clinical Coordinator or Dean. Any requests for a schedule change must be made at least one week before the scheduled shift.

Student Employment

Due to Maine State law, radiologic technology students may not be employed to administer ionizing radiation until they have completed the Program, obtained certification, and obtained licensure.

Diagnostic Medical Sonography students are not regulated under the same Maine laws as radiologic technology students; however, most workplaces do not permit students to work before completing their program. The recommendation of the DMS Program is that DMS students not work in the capacity of a diagnostic medical sonographer until their formal education is complete.

Medical Imaging students may hold other jobs during their health profession education if desired, but the employment must not interfere with their program classes or clinical education.

It is recommended that the students not be employed during the first six months of the Program. Once the student has adjusted to the program's requirements and allocated sufficient study time, they may be better equipped to accommodate outside employment.

Student Injuries in the Clinical Setting

All medical imaging students are expected to perform exams and procedures using proper body mechanics and ergonomics. All students are required to follow appropriate guidelines for injury prevention.

Any student injury that occurs in the clinical setting requires the student and the supervising technologist to follow institutional policy regarding incident reporting.

All student injuries will be reported to the Dean or Clinical Coordinator immediately. Students may complete the incident report with the assistance of the supervising technologist.

Workers' Compensation does not cover students. In the event of an injury, students may utilize the Emergency Department or seek care from their healthcare provider, and are responsible for any costs incurred. Expenses incurred due to injury may be supplemented by the MCHP-provided accident insurance specified in the accident insurance policy.

Student Introductions

According to the patient's bill of rights, patients have the right to know who is providing their care. Students will introduce themselves to patients in the clinical area by their first names and as medical imaging students.

Patients have the right to request that a registered medical imaging technologist perform their exam. In such an event, the student must notify their medical imaging technologist or supervisor, who will arrange for a registered medical imaging technologist to perform the examination.

Use of Phones and Personal Electronic Devices in the Clinical Setting

Students are not permitted to use personal electronic devices in the clinical setting.

Absolutely no patient information, including photos, shall be accessed by or stored in a personal electronic device.

For example:

- Students must not carry their cell phones with them in the clinical setting. They may check their phones during a scheduled break outside the clinical setting.
- Watches are allowed in the clinical setting; however, accessing the smartwatch features is not permitted in the clinical setting (i.e., messages, phone calls, notifications).
- Students may not use their laptop, tablet, or cell phone in the clinical setting to complete homework, check email, or for personal use.
- Students will not take photos in the clinical setting unless approved by the medical imaging supervisor of the facility.

MRI Safety and Screening

Magnetic Resonance Imaging (MRI) environments pose unique safety risks due to the presence of strong magnetic fields and radiofrequency energy. Unlike other imaging modalities, these risks can be life-threatening if proper precautions are not followed. To protect students and ensure compliance with JRCERT Standards and the American College of Radiology (ACR) MR Safety Guidelines, this policy mandates formal MR safety training and screening prior to the start of any clinical rotation. This proactive approach fosters a culture of safety, minimizes the risk of accidents, and ensures that students are thoroughly prepared to work in and around MR environments.

MRI Safety

Purpose: To ensure student safety and compliance with regulatory standards during clinical rotations in and around Magnetic Resonance (MR) environments.

All students enrolled in the Radiologic Technology Program are required to complete formal MRI Safety Training and submit an MR Safety Screening form prior to beginning any clinical rotation, regardless of whether that specific rotation involves direct interaction with the MR environment. This requirement is in place to ensure all students are prepared for potential hazards related to static magnetic fields, gradient magnetic fields, and radiofrequency (RF) energy when completing clinical experiences at facilities with MR imaging units.

In addition to initial completion, both MR safety training and safety screening must be updated annually for the duration of the student's enrollment in the program. At the completion of the MR safety training, students must pass an MR safety assessment with a 100% score. MR safety training content will reflect current American College of Radiology (ACR) MR Safety Guidelines and institutional policies.

MR safety screening forms are evaluated by MRI-registered personnel before clinical rotations begin. Students cleared to enter the MR environment must report any status changes (changes that affect the student's previous screening response) to the clinical coordinator.

Radiation Protection (for ionizing radiation programs only)

Radiation Safety

Purpose: To ensure Radiation Safety for patients, students, and the general public.

1. The Radiation Safety Officer (RSO) shall be appointed by the Dean of the Medical Imaging Programs. The RSO will work in cooperation with the Medical Imaging Administrators and Faculty to ensure adherence to regulations pertaining to radiation safety.
2. Students will be educated in methods used to keep radiation exposure to patients, themselves, and the general public, As Low As Reasonably Achievable (ALARA). Students are responsible for practicing radiation safety to foster the ALARA concepts.
3. Students shall abide by the radiation safety policies of their assigned clinical site.
4. Students will adhere to the radiation safety protocols listed in the Medical Imaging Student Handbook:
    a. Declaration of Pregnancy
    b. Dosimetry
    c. General Policy Statements
    d. Pregnant Students

Radiation Monitoring and Safety

Purpose: To ensure Radiation Safety for patients, students, and the general public and to promote the appropriateness of Imaging Services.

Gonadal shielding shall be performed on all patients within or below childbearing age unless the shield compromises the diagnostic image or facility policy prohibits the use of gonadal shielding.

The radiation field shall be restricted to the area of interest and shall not exceed the dimensions of the image receptor.

Medical Imaging students shall not hold patients during radiographic procedures. Mechanical immobilization devices, a family member, or a non-radiation worker shall be used to immobilize patients.

No persons, other than those required for the radiographic procedure, shall be permitted in the X-ray room during the production of X-rays.

Students shall abide by the radiation safety policies of their assigned clinical site.

Dosimetry

Medical Imaging students who work with ionizing radiation shall be required to wear a personal monitoring device (PMD) during clinical hours.

PMDs must be worn at the collar level, outside any lead apron.

PMDs must be stored in designated areas and not left in radiography rooms where they could be accidentally exposed.

PMDs shall be exchanged monthly. It is the student's responsibility to exchange the PMD in a timely manner.

The student dosimetry report is reviewed monthly by the Radiation Safety Officer and the Clinical Coordinator in consultation with the Dean. If the student's dosimetry reading exceeds the threshold limit of 50 mrem (0.5 mSv) in any month or 125 mrem (1.25 mSv) in any quarter, the Dean will schedule a meeting with the student to discuss radiation safety and strategies for reducing radiation exposure. Any student reading exceeding ALARA action levels (monitored by the radiation safety officer) will be referred to the Central Maine Medical Center Radiation Safety Committee for further follow-up, and the Dean will conference with the student to discuss additional measures to reduce radiation exposure.

The student shall review their PMD reading monthly. The student PMD monthly report is available through the online clinical documentation system Trajecsys. Yearly PMD reports are distributed directly to the student on paper.

The student shall notify the Dean or Clinical Coordinator immediately if the PMD is lost or if the student is accidentally exposed to primary radiation.

Pregnancy and Maternity Policies

Radiation is potentially harmful to the fetus, and the maximum permissible dose to the fetus during the entire gestational period is limited to no more than 500 mrem (5 mSv). Some radiography procedures pose additional radiation risks to pregnant students. Therefore, extra precautions must be taken when performing exams, such as fluoroscopy and mobile and surgical radiography, to ensure the protection of the fetus.

Because the fetus is most sensitive to radiation during the first trimester, early confirmation of pregnancy through appropriate tests is essential. If the student does decide to declare their pregnancy, they will be advised of radiation safety measures in a conference with the Dean in consultation with the radiation safety officer. The student must inform the Dean of the pregnancy or the possibility of pregnancy as soon as possible to discuss available options.

The student who chooses to declare their pregnancy is permitted to attend classes and participate in clinical practice during the pregnancy. The student will be issued a second dosimeter, upon request, to be worn at waist level beneath the lead apron. Clinical assignments will not be changed during the pregnancy as long as the total fetal dose remains below 500 mrem (5 mSv). However, students should exercise additional preventive measures when participating in clinical areas that pose a higher radiation risk or exposure to infectious diseases.

If the student's fetal dose exceeds 500 mrem (5 mSv), they will be advised to start their maternity leave immediately. Transferring to a non-radiation area would not be in the best interest of the student's educational requirements.

Maternity leave is usually granted for six weeks. The actual dates of maternity leave will be determined in consultation with the student's medical provider.

The student has several options available for re-entry into the Program. They may:

1. Attend classes throughout the maternity leave and make up clinical time after graduation, provided the length of the leave is not excessive.
2. Take a leave of absence and return to the Program the following year at the beginning of the semester in which they leave, providing there is space in the class.
3. Make up classes with the assistance of the faculty and make up clinical time missed after graduation, provided the length of the leave is not excessive.

All options available to the student will be discussed between the Dean and the student before the student makes a decision. The student must make up all classes and clinical requirements before they will be eligible to take the national certification exam.

Radiation Protection for Students During Pregnancy

Purpose: To ensure radiation exposure to pregnant students is kept to a minimum, consistent with their tasks in the imaging department.

A student may elect to declare their pregnancy. Refer to the Declaration of Pregnancy policy below. If a student chooses to declare their pregnancy, they are advised to inform the Dean as soon as possible.

An additional fetal dosimeter shall be issued for a pregnant individual as soon as possible following notification of pregnancy. The additional dosimeter will monitor the dose to the fetus and shall be worn on the hip area underneath any lead apron or other shield.

The Radiation Safety Officer (RSO) is responsible for monitoring exposure to radiation during the gestational period and making suitable recommendations should the exposure level approach 500 mrem (5 mSv).

The maximum permissible dose (MPD) shall not exceed 500 mrem (5 mSv) to the embryo or fetus during the entire gestational period.

If the fetal dose exceeds 500 mrem (5 mSv), the student will be advised to start their maternity leave immediately. Transferring to a non-radiation area would not be in the best interest of the student's educational requirements. The student has several options for re-entry into the Program after the maternity leave, which will be discussed with the Dean and the student before the maternity leave.

If the fetal dose exceeds 50 mrem (0.5 mSv) in any month during the pregnancy, the Dean will schedule a meeting with the student to discuss radiation safety and means to reduce radiation exposure.

The student may revoke the declaration of pregnancy at any time; however, the revocation must be in writing.

Declaration of Pregnancy

The student may voluntarily declare pregnancy by completing the Declaration of Pregnancy form, available from the Dean, and submitting it to the Radiation Safety Officer.

Maine College of Health Professions must take measures to ensure that the total dose of occupational exposure to the embryo/fetus during the entire pregnancy does not exceed 500 mRem.

If the fetal dose exceeds 500 mrem (5 mSv), the student will be advised to start their maternity leave immediately. Transferring to a non-radiation area would not be in the best interest of the student's educational requirements. The student has several options available for re-entry into the Program after maternity leave. These will be discussed with the student before the maternity leave.

The student may revoke the declaration of pregnancy at any time, and the revocation of the declaration must be in writing.

Radiologic Technology Section

Clinical Competency

The following clinical competency process has been developed to measure the student's ability to perform at satisfactory levels of competency.

1. Students participate in classes and position simulated patients in the lab.
2. Students pass procedure tests, both written and on simulated patients in the lab.
3. Students observe and perform the specific body part under direct supervision in the clinical area.
4. Students request a competency evaluation in the clinical area.
5. Students pass the competency evaluation with a grade of 80% or higher and perform these radiographic procedures under indirect supervision. Students who fail to achieve competency will return to step 3 above, gain remedial instruction, obtain additional experience in the clinical area, and then retake the competency evaluation. Students must remain under direct supervision until the successful completion of the competency. (Refer to the Clinical Supervision section in this handbook.)
6. If Clinical Preceptors or Clinical Staff identify student inconsistencies, they will communicate the concerns with the Clinical Coordinator. A performance improvement plan is developed with the student, and a challenge competency examination may be recommended. The student must pass the challenge competency evaluation with a grade of 80% or higher. Failure to pass the challenge competency evaluation would result in further action, which may include dismissal from the Program, deemed necessary by the Dean in consultation with the Clinical Coordinator.
7. In the final semester, students will take the final competency evaluation as directed by the Clinical Coordinator. If a student fails the final competency evaluation, they must take part in additional instruction and retake the final competency evaluation. Passing the final competency evaluation is indicative of entry-level preparedness for the field.

Registered Radiologic Technologists at the Clinical Affiliates are responsible for evaluating students for competency evaluations. The final competency evaluation will be performed in the MCHP radiology simulation lab during the last semester.

To progress in the clinical area, students must meet all clinical course requirements, including competency evaluations and clinical attendance. Students must achieve a minimum 74% (or 2.0) in each clinical course of the curriculum.

Clinical Competency Breakdown by Semester/Course (effective Class of 2026)

Semester I - RAD 135 Radiology Clinical I (2 credit hours)

- No competency requirement.

Semester II - RAD 160 Radiology Clinical II (4 credit hours)

- Completing at least **6** and no more than **10** competencies is required.

Semester III – RAD 180 Radiology Clinical III (6 credit hours)

- Completing at least **10** and no more than **15** additional competencies is required.

Semester IV – RAD 245 Radiology Clinical IV (8 credit hours)

- Completing at least **15** and no more than **20** additional competencies is required.

Semester V – RAD 280 Radiology Clinical V (6 credit hours)

- Completing all remaining competencies is required.

Clinical Competency Breakdown by Semester/Course (effective Class of 2027)

Semester I - RAD 135 Radiology Clinical I (2 credit hours)

- No imaging procedure competency requirements.

Semester II - RAD 160 Radiology Clinical II (4 credit hours)

- Completing at least **6** and no more than **10** imaging procedure competencies is required.

Semester III – RAD 180 Radiology Clinical III (6 credit hours)

- Completing at least **15** and no more than **20** additional imaging procedure competencies is required.
- 1-2 general patient care procedures.

Semester IV – RAD 245 Radiology Clinical IV (8 credit hours)

- Completing at least **15** and no more than **20** additional imaging procedure competencies is required.
- Remaining general patient care procedures (1-2).

Semester V – RAD 280 Radiology Clinical V (6 credit hours)

- Completing all remaining imaging procedure competencies is required.

Clinical Competency Requirements

As part of the education program, radiography students must demonstrate competence in the clinical procedures identified in the American Registry of Radiologic Technologists (ARRT) Radiography Clinical Competency Requirements. Demonstration of clinical competence means that the student has performed the procedure independently, consistently, and effectively during their formal education. Competency of imaging procedures is completed on patients in the clinical environment. The guidelines for completing the clinical procedures are as follows:

- Ten mandatory general patient care procedures (Sterile/Medical Aseptic technique, Assisted Patient Transfer, and Care of Patient Medical Equipment procedures completed during clinical rotations);
- 36 mandatory imaging procedures;
- 15 elective imaging procedures selected from a list of 34 procedures;
- One of the 15 elective imaging procedures must be selected from the head section, and
- Two of the 15 elective imaging procedures must be selected from the fluoroscopy studies section.

One patient may be used to document more than one competency. However, each individual procedure may be used for only one competency (e.g., a portable femur can only be used for a portable extremity or a femur, but not both)

Students will refer to the ARRT Radiography Clinical Competency Requirements for details of the clinical procedures.

Clinical Supervision

The Radiologic Technologists at the clinical affiliates will act as the students' immediate supervisors. Any concerns with the clinical schedule or rotation should be discussed with the Clinical Coordinator. The Clinical Coordinator, clinical preceptors, staff technologists, medical imaging supervisors, and Dean serve as student resources. The student is responsible for performing exams under the appropriate level of supervision. The supervising technologist determines what level of supervision is required for each student, following the guidelines of direct and indirect supervision below and based upon observation of the student's performance. Regardless of the level of supervision, all student images must be approved by a technologist before the patient leaves the medical imaging department. The supervising technologist may take over the performance of the exam at any point, regardless of the student's competency level, if the technologist determines the patient's care is compromised.

Direct supervision: A Radiologic Technologist (R.T.) must be able to observe the student at all times and assist or intercede immediately in the radiographic examination if, in their opinion, the examination is being performed improperly or the continuation of the exam will be potentially harmful to the patient or student. The R.T. must:

- Witness the student's performance of the procedure,
- Evaluate the condition of the patient in relation to the student's knowledge,
- Be physically present during the entire procedure and
- Review and approve the completion of the procedure with associated images.

Students must be under direct supervision when performing the following radiographic exams:

- Examinations before successful demonstration of clinical competency
- Repeat projections of an examination, despite competency level
- Critical care examinations
- Surgical procedures
- Mobile Procedures, including mobile fluoroscopy
- Exams involving the use of iodinated contrast media

Indirect Supervision: A Radiologic Technologist must be in the adjacent area, within shouting distance of the student. The R.T. must be able to free themselves from any other responsibilities to offer immediate consultation or direct supervision to a student who, after re-evaluating the tasks involved in the radiographic examination, requires additional assistance.

Students are permitted to perform radiographic examinations under indirect supervision if:

- The exam is not restricted by the preceding paragraph dealing with direct supervision.
- The student has passed a clinical competency evaluation on the body part under examination.
- The patient's condition is non-critical.

Students assigned to clinical rotations in the following areas will act primarily as observers and may perform basic tasks assigned by the supervisor of the clinical area. Students shall be under direct supervision when performing all assigned tasks in these clinical areas.

- Computed Tomography
- Mammography
- Interventional Radiography
- Nuclear Medicine
- Radiation Therapy
- Diagnostic Medical Sonography
- Magnetic Resonance Imaging
- Cardiac and Vascular Imaging

Students should not be required to change clinical assignments due to the absence of medical imaging department personnel or other students. However, the student may be required to change clinical assignments to provide appropriate clinical education and supervision. The Clinical Coordinator, Dean, or clinical preceptor, in consultation with the medical imaging supervisor, may make changes in clinical assignments.

Student Awards

The Clark F. Miller Award for Outstanding Scholastic Achievement is presented by the X-Ray Professionals Radiologist group at CMMC to the graduating radiography student who has the highest academic grade point average in radiography-specific courses and has maintained the highest ethical standards in Radiologic Technology.

The Clark F. Miller Award for Clinical Excellence is presented by the X-Ray Professionals Radiologist group at CMMC to the graduating radiography student with the highest cumulative clinical grade point average and who has maintained the highest ethical standards in Radiologic Technology.

Computed Tomography Section

Clinical Competency

The following clinical competency flow chart has been developed to measure the student's ability to perform at satisfactory competency levels.

1. Students must be nationally certified in Radiography, Nuclear Medicine Technology, or Radiation Therapy before program completion.
2. Students must successfully complete MIS 300 Sectional Anatomy and CT 325 Computed Tomography Principles and Applications before beginning clinical rotations.
3. Students will observe, assist, and perform computed tomography examinations under direct supervision in the clinical area, documenting observation and practice.
4. Students request a category competency evaluation.
5. Students pass the category competency evaluation and perform category examinations under indirect supervision. Students not successfully demonstrating competency will seek remedial instruction and go back to step 3 above while obtaining additional experience in the clinical area until they are prepared to retake the category competency evaluation.

Clinical Competency Breakdown by Course

CT 360 CT Clinical Practicum (8 credit hours, ~480 clock hours) *

- Successful completion of ARRT clinical experience requirements as outlined below.

*Note: CT 360 may be substituted for CT 340, 4 credits in one semester, and CT 350, 4 credits, in the following semester if attending part-time.

The Computed Tomography (CT) Program follows the ARRT Computed Tomography Clinical Experience Requirements for post-primary credentialing in computed tomography. To successfully complete the clinical experience requirements, students must perform and document a specific number of clinical procedures and adhere to the following guidelines:

- Documentation of the performance of the required CT repetitions must be completed before applying for certification and registration.
- No more than nine procedures can be documented for CT repetitions for each day.
- CT clinical repetitions must be documented no more than 24 months before applying for certification and registration.

Students must document the performance of complete diagnostic quality procedures according to the following requirements listed on the ARRT Computed Tomography Clinical Experience Requirements:

- Choose a minimum of 25 different procedures out of the 62 procedures listed.
- Complete and document a minimum of three and a maximum of five repetitions of each chosen
- procedure; less than three will not be counted toward the total.
- A minimum total of 125 repetitions is required.
- A minimum number of 30 repetitions must be done with iodinated IV contrast.
- A maximum of 9 repetitions may be logged from each day.
- No more than one procedure may be documented on one patient per day. For example, if an order
- requests chest, abdomen, and pelvis scans for one patient, only one of these may be documented
- for clinical experience documentation.
- Computed Tomography procedures performed for the purpose of a PET or SPECT attenuation
- correction or a radiation therapy planning cannot be used to fulfill ARRT's clinical experience
- requirements.
- Any non-cone beam CT scanner may be used to fulfill ARRT's clinical experience requirements (e.g., hybrid scanner, therapy planning scanner).

CT technologists at the clinical site are responsible for evaluating students for the category competency evaluations.

Any student not completing the requirements during the semester will be given an incomplete (Refer to the Incomplete Grade Policy).

Clinical Supervision

The CT technologists at the clinical affiliates will act as the students' immediate supervisors. Any problems with the clinical schedule or rotation should be discussed with the Dean or Clinical Coordinator. The Dean, Clinical Coordinator, and clinical staff are available as resources in the event of a problem in the clinical area. The CT Technologist determines the level of supervision required for each student following the direct and indirect supervision guidelines below. Regardless of the level of supervision, all student images must be approved by a technologist before the patient leaves the medical imaging department. The technologist may take over the exam at any point if they think it is in the best interest of the patient.

Direct supervision: A CT technologist must be in the same room as the student. The technologist must be able to observe the student at all times and assist or intercede immediately in the CT examination if, in the opinion of the technologist, the examination is being performed improperly or the continuation of the exam will be potentially harmful to the patient or student.

Students must be under direct supervision when performing the following CT examinations:

- Exams before successful documentation of clinical competency
- Exams being performed for verification of clinical experience
- Repeat examination
- Exams involving the use of iodinated contrast media
- Critical care examinations

Indirect Supervision: A CT technologist must be in the adjacent area, within shouting distance of the student. The technologist must be able to free themselves from any other responsibilities to offer immediate consultation or direct supervision to a student who, after re-evaluation of the tasks involved in the CT examination, requires additional assistance.

Students are permitted to perform radiographic examinations under indirect supervision if:

- The exam is not restricted by the preceding paragraph dealing with direct supervision,
- The student has passed a clinical competency evaluation on the exam,
- The exam is not being performed for verification of clinical experience, and
- The patient's condition is non-critical.

Diagnostic Medical Sonography Section

Technical Standards

The diagnostic medical sonography (DMS) students should be able to meet the following technical standards. The technical standards for the DMS program represent those found in the profession. Prospective students should judge their capabilities with those required of a sonographer. If an applicant or student cannot meet the outlined technical standards, they may be withdrawn from the program.

Definition of a Sonographer

Diagnostic medical sonographers are committed to enhanced patient care and continuous quality improvement that increases knowledge and technical competence. Diagnostic medical sonographers use independent, professional, ethical judgment and critical thinking to safely perform diagnostic sonographic procedures.

Diagnostic medical sonography is a multi-specialty profession comprised of abdominal sonography, breast sonography, cardiac sonography, obstetrics/gynecology sonography, pediatric sonography, phlebology sonography, vascular technology/sonography, and other emerging clinical areas. These diverse areas all use ultrasound as a primary technology in their daily work.

Sonographers must be committed to increasing knowledge and technical competence (e.g., through continuing medical education and staying abreast of emerging trends, technologies, and advancements in the profession). Sonographers use independent, professional, and ethical judgment and critical thinking to safely perform diagnostic sonographic examinations, procedures, and associated tasks. Despite the commonality of ultrasound technology across the field of sonography, the bodies of knowledge, technical skills, and competencies of sonographers vary by sonography specialty areas. The sonographer should demonstrate competence through appropriate education, training, and experience in all diagnostic sonographic examinations, procedures, and associated tasks performed.

The diagnostic medical sonographer:

- Functions as a delegated agent of the physician; and
- Does not practice independently (SDMS, 2023, pp. 1-2).

Certification

DMS students must take at least two (2) board exams through the American Registry for Diagnostic Medical Sonography (ARDMS) to become a Registered Diagnostic Medical Sonographer (RDMS): the Sonography Physics and Instrumentation (SPI) exam and a specialty exam. Students who successfully complete the MCHP DMS program will qualify to sit for both the Abdomen (AB) and Obstetrics and Gynecology (OB/GYN) ARDMS specialty examinations.

Physical Requirements

Sonographers perform physically demanding tasks during ultrasound examinations, requiring strength, dexterity, and endurance to ensure accurate imaging and patient comfort. Meeting these physical requirements allows sonographers to perform their duties effectively, ensuring optimal imaging quality, patient comfort, and safety during ultrasound examinations.

- Vision:
  - See clearly at close proximity, at a distance, in color, peripherally, demonstrate depth perception and ability to adjust focus
  - Visual acuity to include color distinctions and gradual changes in black and gray
  - Visually monitor patients in dimmed light
  - Use sophisticated hand-eye coordination to manipulate the transducer and the machine control panel simultaneously
- Auditory:
  - Ability to hear auditory signals from the ultrasound machine
  - Ability to distinguish auditory differences in Doppler signals
- Stamina:
  - Stand/walk for several hours at a time (50%-80% of day)

    - Perform CPR
    - Stoop and bend
    - Move/walk/run quickly in emergencies
    - Reach overhead
    - Position body away from neutral for short periods of time
- Strength:
    - Transport patients by wheelchair and stretcher
    - Move heavy equipment
    - Lift or exert force up to 50 pounds
- Repetition:
    - Tolerate repetitive use of hands, arms, and shoulders
    - Apply downward pressure for an extended period of time
    - Grip a transducer for prolonged periods of time
- Fine Motor Movements:
    - Full use of hands, wrists, and shoulders
    - Able to perform fine motor movements with precision to manipulate the ultrasound transducer
    - Ability to keep hand, wrists, arms, and shoulder steady in order to obtain images in a small area
    - Excellent multi-limb coordination
- Ergonomics:
    - Willingness to implement injury-preventative practices
- Touch:
    - Lean on, touch, and contact a patient's body in order to optimize body ergonomics
    - Touches the patient to palpate masses and areas of concern
    - Position/move/adjust patients using principles of safe body mechanics
    - Transfer patients from wheelchairs to a hospital bed, stretchers to bed, and vice versa, using principles of safe body mechanics

Communication Requirements

Effective communication is essential for establishing rapport with patients, collaborating with colleagues, and ensuring accurate transmission of clinical information. By meeting these communication requirements, sonographers can establish trust, facilitate shared decision-making, and promote positive patient experiences while ensuring the delivery of high-quality care.

- Listen and comprehend spoken and written English
- Obtain relevant patient clinical history
- Communicate clearly in English with patients and other healthcare professionals in the healthcare setting (i.e., darkened rooms, operating rooms with a surgical mask in place, in rooms with background noise, around partitions in rooms, etc.)
- Collaborate with others
- Demonstrates sensitivity towards individuals from diverse backgrounds
- Hear and communicate instructions to patients
- Read and analyze patient records
- Eloquently writes preliminary reports using correct grammar, spelling, punctuation, sentence structure, and correct medical and sonographic terminology for the reading provider
- Writes on and in patient charts using correct grammar, spelling, punctuation, sentence structure, and correct medical and sonographic terminology
- Recognize and respond to emergent situations
- Practice active listening
- Pay attention to nonverbal cues, adapting communication style and approach to match the patient's emotional state and comfort level

Intellectual Requirements

These intellectual requirements, combined with technical skills and clinical experience, form the foundation for competent and proficient sonographic practice.

- Ability to collect, interpret, and integrate information and make decisions
- Exceptional attention to detail
- Ability to analyze complex clinical scenarios
- Ability to adapt scanning protocols from normal during an examination

- Ability to adapt scanning protocols based on patient history and current patient symptoms
- Independent ability to troubleshoot technical issues
- Developed ability to recognize patterns
- Integrate findings with clinical information
- Maintain ethical guidelines
- Effectively manage workload and prioritize tasks
- Must be adaptable to changes in technology, patient populations, and clinical environments
- Flexibility when responding to patient needs
- Uses rote memorization and recall in fulfilling exam protocols

Critical Thinking Requirements

Critical thinking is crucial for sonographers to analyze complex clinical scenarios, interpret sonographic images accurately, and make informed diagnostic decisions. These critical thinking requirements enable sonographers to navigate the complexities of diagnostic imaging effectively, contribute to accurate diagnosis and treatment planning, and ultimately enhance patient care outcomes.

- Analyze information objectively
- Accept, react appropriately, and implement constructive criticism
- Identify cause-and-effect relationships
- Comprehend and follow instructions
- Evaluate patient history, clinical symptoms, and relevant medical records to formulate appropriate scanning protocols
- Proficiently interpret sonographic images, including recognition of normal anatomy, variations, and pathological findings across various body systems
- Capacity to identify technical challenges during imaging procedures
- Implement appropriate adjustments to optimize image quality and diagnostic accuracy
- Skilled in generating a differential diagnosis based on sonographic findings
- Capability to critically analyze sonographic findings in the context of clinical history, physical examination, and other diagnostic tests to determine their significance and relevance to patient care
- Ability to assess image quality and artifacts
- Integrate evidence-based guidelines to make informed decisions
- Recognize limitations of ultrasound imaging in its sensitivity, specificity, and potential pitfalls to avoid overinterpretation or misdiagnosis
- Ability to adapt to changing clinical environments, patient needs, and technological advancements while remaining flexible
- Synthesize sonographic information during image acquisition
- Makes safe judgments

Professionalism

Professionalism is essential for creating a positive patient experience, maintaining ethical standards, and fostering effective teamwork. By embodying these professionalism requirements, sonographers contribute to a positive work environment, uphold the reputation of their profession, and ultimately enhance the quality of patient care.

- Maintains professional appearance
- Arrives at scheduled assignments on time
- Fulfills professional obligations
- Committed to injury prevention
- Follows Standard Precautions
- Performs hand hygiene
- Provides patient-centered, compassionate care
- Establishes a professional working relationship with the healthcare team
- Prioritizes the needs of patients
- Ensures patient comfort, dignity, and well-being
- Respectfully communicates with patients, colleagues, and other healthcare professionals
- Committed to ongoing professional development
- Take accountability for one’s actions, to include errors and oversights
- Actively seeks solutions to improve performance
- Engages in quality improvement initiatives

- Values diversity and cultural differences
- Safeguards patient confidentiality and privacy by maintaining strict adherence to HIPAA regulations
- Maintain appropriate professional boundaries with patients and colleagues
- Collaborates effectively with members of the healthcare team
- Resolves conflicts or disagreements in a constructive and professional manner
- Serves as a role model for colleagues and students
- Demonstrate impulse control and a professional level of maturity

Ethical Guidelines

Ethical guidelines are essential for ensuring that sonographers conduct themselves with integrity, respect, and professionalism while providing patient care. By adhering to these ethical guidelines, sonographers can promote trust, integrity, and professionalism in their practice while ensuring the well-being and dignity of their patients.

- Respects patients' rights
- Maintains strict confidentiality (HIPAA)
- Obtains informed consent from patients or their legal guardians before performing ultrasound examinations
- Treat all patients with dignity, respect, and compassion regardless of age, gender, race, religion, socioeconomic status, or medical condition
- Uphold high standards of professional integrity, honesty, and transparency
- Take measures to minimize the risk of harm to patients
- Recognize when additional expertise or specialized consultation is warranted
- Advocate for patients' best interests
- Complies with the Code of Ethics for the Profession of Diagnostic Medical Sonography (SDMS, 2017)

Accommodations

Students with a documented disability who wish to request reasonable accommodations to have access to the programs and services offered by the College must register with the Americans with Disabilities Act (ADA) Coordinator by calling (207)330-7878 (TTD 207-741-5667) to schedule an appointment.

Pregnancy Policy

Purpose: This policy is designed to ensure that Diagnostic Medical Sonography (DMS) students who are pregnant are supported, provided with appropriate accommodations, and protected under applicable legal guidelines, including Title IX of the Education Amendments of 1972, which prohibits discrimination on the basis of sex, including pregnancy, childbirth, and related conditions.

Policy Overview

The program recognizes that pregnancy is a temporary condition and aims to support pregnant students while ensuring their academic and clinical success. This policy provides guidelines for notifying the program, requesting accommodations, and ensuring student health and safety.

Legal Compliance

The program adheres to all applicable laws and regulations, including:

- Title IX: Prohibits discrimination based on pregnancy and requires institutions to provide reasonable accommodations for pregnant students.
- Americans with Disabilities Act (ADA): Applies in cases where pregnancy-related conditions qualify as a temporary disability.

Notification Process

Voluntary Disclosure: Students are not required to disclose their pregnancy. If students choose to disclose their pregnancy, they are encouraged to notify the DMS Program Director as early as possible to provide necessary support and ensure a safe learning environment.

Documented Disclosure: Students disclosing pregnancy will meet with the DMS Program Director and complete the DMS Disclosure of Pregnancy Form.

Privacy and Confidentiality: All information related to a student's pregnancy will be treated confidentially.

Accommodations

Students seeking accommodations must meet with the ADA Coordinator.

Program Interruptions

Students may choose to take time off from program requirements. The following policies inform and guide student progression in the program:

- Academic Leave of Absence Policy
- Financial Aid Student Leave of Absence Policy
- Medical Imaging Clinical Attendance Policy

Safety Guidelines

Clinical Environment: Pregnant students should, at a minimum:

- Wear appropriate protective equipment (e.g., lead aprons during procedures involving radiation).
- Avoid exposure to harmful substances and ensure adherence to safety protocols at clinical sites.

Health Monitoring: Students are encouraged to consult their healthcare provider to assess their ability to continue with program activities, particularly in physically demanding or potentially hazardous environments.

Responsibilities

Student Responsibilities

- Students choosing to disclose their pregnancy: Notify the program of pregnancy and request accommodations as needed.
- Comply with safety protocols and communicate concerns promptly.

Program Responsibilities

- Provide a supportive and non-discriminatory environment.
- Implement reasonable accommodations promptly.
- Ensure that clinical sites adhere to safety protocols for pregnant students.

College and Program Resources

- DMS Program Director
- ADA Coordinator
- Title IX Coordinator

Additional Student Information

- Students will be exposed to infectious diseases.
- Diagnostic Medical Sonography students may be exposed to ionizing radiation and wear a full lead apron (6-15 lbs.) for extended periods.
- Students may not register for classes until they have documented compliance with the immunization and background check requirements. Information on these requirements will be mailed after acceptance and is available upon request.

References

Society of Diagnostic Medical Sonography (SDMS). (2017, February 8). *Code of ethics for the professions of diagnostic medical sonography*. https://www.sdms.org/about/who-we-are/code-of-ethics

Society of Diagnostic Medical Sonography (SDMS). (2023). *Scope of practice and clinical standards for the diagnostic medical sonographer*. https://www.sdms.org/docs/default-source/Resources/scope-of-practice-and-clinical-standards.pdf?sfvrsn=18

Clinical Competency

The following clinical competency flow chart has been developed to measure the student's ability to perform at satisfactory levels of competency.

1. Students with an Associate Degree in Allied Health must have professional certification before beginning clinical rotations.

2. Students must complete DMS 330 Sonography Lab I before any clinical rotations.
3. Students must be enrolled in or have previously completed DMS 340 Sonography Physics & Instrumentation, DMS 355 Sonography of the Abdomen & Additional Procedures, DMS 360 Obstetrical and Gynecological Sonography II, and DMS 370 Sonography Lab II to complete clinical rotations.
4. Students will observe, assist, and perform ultrasound studies under direct supervision in the clinical area, documenting observation and practice.
5. Students request a clinical competency evaluation in the clinical area.
6. Students pass the clinical competency evaluation and engage in the performance of examinations under indirect supervision. Students who fail to achieve competency will return to step 4 above, gain remedial instruction, obtain additional experience in the clinical area, and then retake the competency evaluation. Students must remain under direct supervision until successful completion of competency (Refer to the Clinical Supervision section listed below).
7. If clinical instructors or staff identify student inconsistencies, they will communicate the concerns to the Clinical Coordinator. A performance improvement plan is developed with the student, and a challenge competency examination may be recommended. The student must pass the challenge competency evaluation with a grade of 80 or better. Failure to pass the challenge competency evaluation would result in further action, which may include dismissal from the Program deemed necessary by the Dean in consultation with the Program Director.

Supervising sonographers and clinical instructors at the clinical site evaluate students for clinical competency. Sonographers conducting student clinical competency evaluations must possess the relevant certification for the specific competency being assessed. They must be registered in at least one of the certifications listed for each competency below. If multiple certifications are specified for a particular examination, the sonographer need only hold one of the listed certifications; certification in all listed is not required.

The following table depicts the clinical competency examination requirements. All 19 mandatory examinations, three elective examinations, and all ergonomic assessments are required.

Examination	Mandatory or Elective	Evaluator Certification
Aorta	Mandatory	RDMS (AB) or RVT or RT (VS)
RUQ, Basic	Mandatory	RDMS (AB) or RT (S)
RUQ, Advanced	Mandatory	RDMS (AB) or RT (S)
Abdomen Complete	Elective	RDMS (AB) or RT (S)
Retroperitoneal Complete	Mandatory	RDMS (AB) or RT (S)
Bladder	Mandatory	RDMS (AB) or RT (S)
Chest (Pleural Space or Thoracentesis)	Mandatory	RDMS (AB) or RT (S)
Guided Procedure	Mandatory	RDMS (AB) or (OB/GYN) or (BR) or RVT or RT (S) or RT (VS) or RT (BS) – evaluator certification is dependent on the guided procedure
Scrotum	Mandatory	RDMS (AB) or RT (S)
Thyroid	Mandatory	RDMS (AB) or RT (S)
LUQ	Mandatory	RDMS (AB) or RT (S)
Prostate	Elective	RDMS (AB) or RT (S)
Breast	Elective	RDMS (AB) or (BR) or RT (BS)
Superficial Lump	Elective	RDMS(AB) or RT (S)
Pediatric Renal	Elective	RDMS (AB) or (PS) or RT (S)
Pediatric Appendix	Elective	RDMS (AB) or (PS) or RT (S)
Transabdominal Pelvis	Mandatory	RDMS (OB/GYN) or RT (S)
Transvaginal Pelvis	Mandatory	RDMS (OB/GYN) or RT (S)
Cervical Length	Mandatory	RDMS (OB/GYN) or RT (S)
First Trimester, Transabdominal	Mandatory	RDMS (OB/GYN) or RT (S)
First Trimester, Transvaginal	Mandatory	RDMS (OB/GYN) or RT (S)
Fetal Anatomical Survey (Second Trimester)	Mandatory	RDMS (OB/GYN) or RT (S)

Examination	Mandatory or Elective	Evaluator Certification
Fetal Growth, Second Trimester	Mandatory	RDMS (OB/GYN) or RT (S)
Fetal Growth, Third Trimester	Mandatory	RDMS (OB/GYN) or RT (S)
Venous Lower Extremity	Elective	RVT or RT (VS)
Venous Upper Extremity	Elective	RVT or RT (VS)
Carotid	Elective	RVT or RT (VS)
Ergonomic Assessment I	Mandatory	RDMS (AB) or (OB/GYN) or (BR) or RVT or RT (S) or RT (BS) or RT (VS)
Ergonomic Assessment II	Mandatory	RDMS (AB) or (OB/GYN) or (BR) or RVT or RT (S) or RT (BS) or RT (VS)
Ergonomic Assessment III	Mandatory	RDMS (AB) or (OB/GYN) or (BR) or RVT or RT (S) or RT (BS) or RT (VS)

Clinical Competency Breakdown by Semester/Course

Semester II - DMS 380 Sonography Clinical Practicum I (4 credit hours, ~240 clock hours)

- Completion of Ergonomics Assessment and a minimum of 4 and no more than 6 competencies are required.

Semester III - DMS 395 Sonography Clinical Practicum II (6 credit hours, ~ 360 clock hours)

- Completion of Ergonomics Assessment and a minimum of 6 and no more than 8 additional competencies are required.

Semester IV - DMS 415 Sonography Clinical Practicum III (8 credit hours, ~480 clock hours)

- Completion of Ergonomics Assessment and the remaining competencies are required.

Any student not completing the requirements during the designated clinical course above will be given an incomplete (Refer to the Incomplete Grade Policy).

Clinical Supervision

The sonographers at the clinical sites will act as the students' immediate supervisors. Any problems with the clinical schedule or rotation should be discussed with the Clinical Coordinator or Program Director. The Clinical Coordinator, clinical instructors, staff sonographers, medical imaging supervisors, Program Director, and Dean are available as clinical resources. The supervising sonographer determines the level of supervision required for each student, following the guidelines for direct and indirect supervision outlined below. Regardless of the level of supervision, all student images must be approved by a sonographer before the patient leaves the medical imaging department. The sonographer may take over the exam at any point if they think it is in the best interest of the patient.

Direct supervision: A sonographer must be in the same room as the student. The sonographer must be able to observe the student at all times and assist or intercede immediately in the sonographic examination if, in the opinion of the sonographer, the examination is being performed improperly or the continuation of the exam will be potentially harmful to the patient or student.

Students must be under direct supervision when performing the following sonographic examinations:

- Exams being performed for verification of clinical experience
- Exams before successful documentation of clinical competency
- Invasive procedures (i.e., Biopsy, Paracentesis, Thoracentesis)
- Critical care examinations
- Mobile examinations
- Surgical examinations

Indirect Supervision: A sonographer must be in the adjacent area, within shouting distance of the student. The sonographer must be able to free themselves from any other responsibilities to offer immediate consultation or direct supervision to a student who, after re-evaluation of the tasks involved in the sonographic examination, requires additional assistance.

Students are permitted to perform sonographic examinations under indirect supervision if:

- The exam is not restricted by the preceding paragraph dealing with direct supervision,
- The student has passed a clinical competency evaluation on the exam,
- The exam is not being performed for verification of clinical experience, or
- The patient's condition is non-critical.

Ultrasound Scanning Disclaimer Statement

The clinical and lab components of the sonography program will involve students using ultrasound equipment to scan each other to learn and practice scanning techniques. These ultrasound images are limited and are not intended for diagnostic purposes. The scans will not be interpreted by a physician, and the scans remain the property of MCHP.

The faculty and students will not fully evaluate the exam and make no representations that the volunteer is receiving any medical diagnosis or treatment. If a student or faculty member suspects an abnormality has been identified, it is the volunteer's responsibility to follow up with their healthcare provider. The simulated scan is for educational purposes only, and personally identifiable information and medical information will be kept confidential.

All human subjects used for clinical practice will complete a consent form before acting as a volunteer subject.

Mammography Section

Clinical Competency

In order to measure the student's ability to perform at satisfactory levels of competency, the following clinical competency flow chart has been developed.

1. Students must be nationally certified in Radiography before program completion.
2. Students must complete MAM 300 Patient Care in Mammography and MAM 310 Image Production in Mammography before any clinical rotations.
3. Students must be enrolled in or have previously completed MAM 320 Anatomy, Physiology, & Pathology of the Breast and MAM 330 Mammography Procedures.
4. Students will observe, assist, and perform Mammography studies under direct supervision in the clinical area, documenting observation and practice.
5. Students request a category competency evaluation. All mammograms for competency evaluation must be performed on patients (not phantoms or simulations). The first 25 mammograms must be performed under direct supervision.
6. Students pass the category competency evaluation and engage in performance of category examinations under indirect supervision or go back to (4) and remedial instruction while obtaining additional experience in the clinical area, then retake the category competency evaluation

Clinical Competency Breakdown by Course

MAM 340 Mammography Clinical Practicum (6 credit hours, ~360 clock hours) *

- Completion of ARRT clinical experience requirements outlined below.

The Mammography Program follows the ARRT Mammography Clinical Experience Requirements for post-primary credentialing. To successfully complete the clinical experience requirements, students must perform and document a specific number of clinical procedures.

- Students need to complete the activities before they apply for certification and registration.
- There are limits to the number of clinical experience entries students can report for each day (maximum of 16 procedures per day).
- Students must perform the clinical experience requirements no more than 24 months before submitting the application.

Students must document the performance of complete diagnostic quality procedures according to the following requirements:

- Mandatory Procedures
  - Mammographic Imaging – Initial 25 Supervised Mammograms to meet MQSA requirements
  - Mammographic Imaging - 75 Mammograms (Screening or Diagnostic)
  - Quality Control Procedures – 32 Q.C. procedures - Students will participate* in the performance, evaluation, and recording of the Q.C. tests according to the manufacturer's recommendations and date intervals.
  - Mammographic Image Evaluation – 10 Image Evaluation Cases
    - Students must consult with an MQSA-qualified interpreting physician at least once, to review 10 (or more) mammographic cases for breast anatomy, pathology, and image quality, and establish corrective action per EQUIP (Enhancing Quality Using the Inspection Program) regulations.
- Elective Procedures
  - The student must observe, assist with, or participate* in at least five of the ARRT-defined elective procedures. For each individual patient per day, the student may count up to two procedures. The student may document all five elective procedures in one day.

*Participate means the student will be actively involved in the performance of the procedure, even though the student may not have primary responsibility for performing the procedure.

Mammographers at the clinical site are responsible for evaluating students for the category competency evaluations.

Any student not completing the requirements during the semester will be given an incomplete (Refer to the Incomplete Grade Policy).

Clinical Supervision

The mammographers at the clinical affiliates will act as the students' immediate supervisors. Any problems with the clinical schedule or rotation should be discussed with the Dean or Clinical Coordinator. The Dean, Clinical Coordinator, and clinical staff are available as resources or in the event of a problem in the clinical area. The mammographer determines the level of supervision required for each student following the guidelines of Direct and Indirect supervision below. Regardless of the level of supervision, all student images must be approved by a technologist before the patient leaves the medical imaging department. The technologist may take over the exam at any point if they think it is in the best interest of the patient.

Direct supervision: A mammographer must be in the same room as the student. The mammographer must be able to observe the student at all times and assist or intercede immediately in the mammography examination if, in the opinion of the mammographer, the examination is being performed improperly or the continuation of the exam will be potentially harmful to the patient or student.

Students must be under direct supervision when performing the following mammography examinations:

- First 25 mammograms performed for MQSA documentation
- Additional 75 mammograms performed for verification
- Exams being performed for verification of clinical experience
- Exams before successful documentation of clinical competency
- Repeat examinations
- Interventional/Special Procedures
- Critical care examinations

Indirect Supervision: A mammographer must be in the adjacent area, within shouting distance of the student. The mammographer must be able to free themselves from any other responsibilities to offer immediate consultation or direct supervision to a student who, after re-evaluation of the tasks involved in the mammography examination, requires additional assistance.

Students are permitted to perform mammography examinations under indirect supervision if:

- The exam is not restricted by the preceding paragraph dealing with direct supervision.
- The student has performed 100 mammograms for verification under direct supervision.
- The exam is not being performed for verification of clinical experience.
- The patient's condition is non-critical, and it is a screening mammogram.

Note

All information in this handbook is current at the time of original print/publication.

The College reserves the right, at any time, without notice, to change, modify, cancel/delete any course offerings, requirements governing registration, admission, progression and graduation, tuition fees, calendar, policies, and any other regulations related to its student body.