

ADVANCED MEDICAL IMAGING - MAMMOGRAPHY

Mammographers are highly trained radiographers who work with sophisticated low-dose X-ray equipment to produce screening and diagnostic images of the breast. Mammographers are essential members of the medical imaging team performing breast imaging procedures, which are vital to the diagnosis of a variety of breast conditions, including early detection of breast cancer. Graduates of the advanced certificate program at ECC are highly skilled and qualify to sit for advanced certification examination by the American Registry of Radiologic Technologists (ARRT).

Accreditation

There is no mechanism for accreditation of mammography programs at this time.

Entrance Requirements

Each applicant must be a graduate of a JRCERT-accredited radiography program and have passed the ARRT certification examination.

Approximately ten part-time and ten full-time applicants will be accepted on a first-come, first-served basis. Full-time students will be given priority for clinical placement.

Admission Procedures

Admission into the program is selective. For more information, please see [admission requirements](#).

Program Requirements

Students must complete all required courses with grades of C or better and meet graduation requirements in order to be eligible to apply to sit for the ARRT national certification exam in mammography offered by the American Registry of Radiologic Technologists.

Policies and Procedures for Medical Imaging Certificate Programs

Any student demonstrating a positive background check will be denied admission to any health professions program.

Before attending clinical training, students must submit documentation through the Castlebranch portal including: completed medical form which includes proof of immunizations/titer results, COVID vaccine required, proof of health insurance coverage, TB test, and proof of healthcare provider CPR certification. Background checks and drug testing are also conducted through Castlebranch.

Health professions students will be required to update their drug test, TB test/TB survey, and flu vaccine on information an annual basis. Any student demonstrating

a positive drug test will be dismissed from the Health Professions Division.

The standards, policies, and procedures of the medical imaging programs are published in the advanced medical imaging student handbook. Copies of the student handbook may be obtained online at [Medical Imaging](#).

Advanced Medical Imaging Programs Mission Statement

Elgin Community College's advanced imaging programs in magnetic resonance, computed tomography and mammography provide accessible and relevant education in accordance with the highest professional standards. The programs, in partnership with its clinical affiliates, will provide the healthcare community with competent advanced imaging technologists who provide high-quality images and excellent patient-centered care to the diverse populations within the community.

Program Goals and Expected Outcomes

The program will graduate competent imaging technologists.

Expected outcomes: Students/graduates will demonstrate competency by:

- Producing quality images.
- Practicing safety for the patient, him or herself and others.
- Demonstrating overall competence in clinical practice.

The student/graduate will develop and practice proficiency in problem-solving and critical thinking skills.

Expected outcomes: Students/graduates will demonstrate proficiency in problem-solving and critical thinking skills by:

- Modifying standard procedures to accommodate patient conditions and other variables.
- Determining the need and adapting exposure factors and/or protocol for various patient conditions, equipment, accessories and contrast media to maintain appropriate image quality.
- Evaluating image quality and to make appropriate adjustments to obtain diagnostic images.

The student/graduate will practice effective communication skills in the clinical setting.

Expected outcomes: Students/graduates will practice effective communication skills in the clinical setting by:

- Demonstrating effective communication skills.

The student/graduate will conduct him or herself in a professional manner.

Expected outcomes: Students/graduates will conduct him or herself in a professional manner by:

- Demonstrating professional values and behavior in clinical practice.

- Demonstrating professional growth through participation in lifelong learning.

The student/graduate will provide excellent patient care for a diverse population of patients.

Expected outcomes: Students/graduates will provide excellent patient care for a diverse population of patients by:

- Demonstrating increased understanding of the importance of cultural competence in clinical practice.
- Demonstrating increased awareness of current trends and changes in healthcare affecting the global population.

The program will provide the healthcare community with qualified practitioners of advanced medical imaging modalities.

Expected outcomes:

- A retention rate of 75% percent or higher.
- The 5-year average employment rate of graduates within one year of graduation will be 75 percent or greater. A positive outcome is defined as employment in the field for those graduates who declare they are actively seeking employment in the field or pursuing continued education in the field.
- First-time pass rates of graduate cohorts on the ARRT credentialing exam will be consistent with or above the national passing rates each year of the exam, with a minimum pass rate of 75%.
- Mean scores of graduate cohorts on the ARRT credentialing exam will be consistent with or above the national mean scores each year.
- The mean score on the employers' satisfaction survey of the graduates' preparation for employment will be 3.0 (meets expectations) or higher on a 5.0 (exceeds expectations) point scale.

Mammography - Basic Vocational Specialist

Course	Title	Credits
MAM 101	Fundamentals of Breast Imaging	1
MAM 102	Instrumentation and QA	2
MAM 103	Breast Anatomy and Pathology	2
MAM 104	Breast Imaging Techniques	2
MAM 105	Breast Imaging Procedures	3
MAM 106	Mammography Clinical Practicum	3
Total Credit Hours		13

MAM 101 Fundamentals of Breast Imaging (1) 1,0

This introductory course emphasizes the importance of patient care and education in the mammographic environment. Incidence and risk factors, signs and symptoms associated with breast cancer for the male and female patient are discussed. Tumor staging of breast cancers and treatment options for the patient with breast cancer are summarized including the surgical, nonsurgical, and reconstructive aspects for the patient. (1.2) Proficiency Credit Not Available Pass/No Credit Not Available

Radiography Program Information

SPECIAL NOTE: Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) physical exam, 4) lab tests to prove immunity to common illnesses, 5) TB test, 6) health insurance, 7) uniform, 8) social security card 9) Basic Life Support (BLS) Healthcare Provider CPR certification 10) fully vaccinated for COVID-19. .

In-District Tuition/Fees: \$138 (effective 2025/26 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Acceptance into the Mammography program or consent of instructor

Semester(s) Offered: Fall

MAM 102 Instrumentation and QA (2) 1,2

This course covers basic design of the mammography equipment and introduces the student to the role of technical components utilized in mammography and their affect on the mammographic image. Both analog and digital imaging equipment and the use of computer aided detection (CAD) are also discussed. The MQSA regulations and the various agencies that govern mammography including their purposes, processes, and frequency of inspection are included in this course, as well as the quality control testing required to maintain accreditation and the roles that technologists and the physicist play in performing these tests. (1.2) Proficiency Credit Not Available Pass/No Credit Not Available

Radiography Program Information

SPECIAL NOTE: Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) physical exam, 4) lab tests to prove immunity to common illnesses, 5) TB test, 6) health insurance, 7) uniform, 8) social security card 9) Basic Life Support (BLS) Healthcare Provider CPR certification 10) fully vaccinated for COVID-19. .

In-District Tuition/Fees: \$456 (effective 2025/26 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Acceptance into the Mammography program or consent of instructor

Semester(s) Offered: Fall

MAM 103 Breast Anatomy and Pathology (2) 2,0

Breast Anatomy and Pathology introduces the student to the basic terminology associated with the breast anatomy. Also defined are the aspects of the internal and external breast anatomy, cellular components and the TDL (Terminal Ductal Lobular Unit) identifying their role in the breast anatomy. The student is also introduced to breast imaging terminology associated with mammography, the role of the pathologist, and how breast pathology is correlated to breast cancer. (1.2) Proficiency Credit Not Available Pass/No Credit Not Available

Radiography Program Information

SPECIAL NOTE: Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) physical exam, 4) lab tests to prove immunity to common illnesses, 5) TB test, 6) health insurance, 7) uniform, 8) social security card 9) Basic Life Support (BLS) Healthcare Provider CPR certification 10) fully vaccinated for COVID-19. .

In-District Tuition/Fees: \$276 (effective 2025/26 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Acceptance into the Mammography program or consent of instructor

Semester(s) Offered: Fall

MAM 104 Breast Imaging Techniques (2) 1,2

Breast Imaging Techniques introduces the student to the technical factors that influence the mammographic image allows the student the opportunity to evaluate and critique mammographic images. Also discussed is the required labeling required for mammograms and the acceptable abbreviations. (1.2) Proficiency Credit Not Available Pass/No Credit Not Available

Radiography Program Information

SPECIAL NOTE: Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) physical exam, 4) lab tests to prove immunity to common illnesses, 5) TB test, 6) health insurance, 7) uniform, 8) social security card 9) Basic Life Support (BLS) Healthcare Provider CPR certification 10) fully vaccinated for COVID-19. .

In-District Tuition/Fees: \$366 (effective 2025/26 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Prerequisite:Acceptance into the Mammography program or consent of instructor

Semester(s) Offered: Fall

MAM 105 Breast Imaging Procedures (3) 2,2.5

This course introduces the standard views required for obtaining a mammogram, and any additional views and positioning techniques associated with obtaining the required images. The course also discusses special patient situations which the mammographer may encounter during the mammographic exam and offers the student the opportunity to apply critical thinking skills. The course will also define and discuss the differences between a screening and diagnostic mammogram. Alternative imaging options and diagnostic procedures associated with the breast will also be reviewed. (1.2) Proficiency Credit Not Available Pass/No Credit Not Available

Radiography Program Information

SPECIAL NOTE: Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) physical exam, 4) lab tests to prove immunity to common illnesses, 5) TB test, 6) health insurance, 7) uniform, 8) social security card 9) Basic Life Support (BLS) Healthcare Provider CPR certification 10) fully vaccinated for COVID-19. .

In-District Tuition/Fees: \$504 (effective 2025/26 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Acceptance into the Mammography program or consent of instructor

Semester(s) Offered: Fall

MAM 106 Mammography Clinical Practicum (3) 0,15

This course allows the student to apply the knowledge gained in the previous courses and practice positioning and quality control testing under the supervision of a registered mammographer in a clinical setting. This course also provides the opportunity to document clinical competence as required by the ARRT to apply for the advanced certification in mammography. (1.2) Proficiency Credit Not Available Pass/No Credit Not Available

Radiography Program Information

SPECIAL NOTE: Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) physical exam, 4) lab tests to prove immunity to common illnesses, 5) TB test, 6) health insurance, 7) uniform, 8) social security card 9) Basic Life Support (BLS) Healthcare Provider CPR certification 10) fully vaccinated for COVID-19. .

In-District Tuition/Fees: \$504 (effective 2025/26 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Acceptance into the Mammography program or consent of instructor

Semester(s) Offered: Fall