Middlesex Community College
Computed Tomography (CT)
Post-Primary Certification Program
Information Packet
Fall 2018

100 Training Hill Road
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(860) 343-5800

http://mxcc.edu/future-students/selective-admissions/

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Introduction
Middlesex Community College's Computed Tomography (CT) program is designed to prepare certified imaging professionals registered with the ARRT in Radiography, Nuclear Medicine Technology (registration with NMTCB is also accepted), or Radiation Therapy for immediate employment in the workplace as CT Technologists in hospitals, clinics, and medical offices. The program emphasizes that quality patient care will be provided by individuals who have received instruction based on educational and instructional guidelines consistent with the profession.

Middlesex Community College Mission
In all it does, Middlesex Community College strives to be the college of its community. By providing high quality, affordable, and accessible education to a diverse population, the college enhances the strengths of individuals through degree, certificate, and lifelong learning programs that lead to university transfer, employment, and an enriched awareness of our shared responsibilities as global citizens.

Accessibility & Disability Services
Middlesex Community College is committed to equal access for persons with disabilities. Academic adjustments are provided to students with disabilities to assure equivalent access to academic and campus programs. For more information about academic adjustments and how to request them, please contact Ms. Hilary Phelps, Disability Support Services Coordinator (office: Founders Hall room 121; phone: 860-343-5879; email: hphelps@mxcc.edu). Ms. Phelps works with students to discuss individual requests, review the type of adjustments and services that MxCC will provide, and inform them about any documentation that may be necessary to arrange for certain adjustments. Students with disabilities are encouraged to contact Ms. Phelps at least one month before classes begin to avoid any delay in providing academic adjustments, especially when the college must arrange for external resources to provide the adjustments. Please also note that academic adjustments cannot be given retroactively. For further information, please visit www.mxcc.edu/disablity-services.

Program Information
The Middlesex Community College Computed Tomography (CT) Certificate program is a two-semester program for certified Radiographers interested in a career as a CT Technologist. The program accepts and starts a new class during the fall semester each year.

Following the successful completion of all Program requirements and obligations to the college, students are awarded Certificate in Computed Tomography and may sit for the professional Registry exam sponsored by the American Registry of Radiologic Technologists (ARRT). A minimum score of 75 on the national post-primary certification examination is required for certification as a Computed Tomographer.

The program adheres to MXCC Student and Faculty Non-Discrimination policies in that there is no discrimination of student or faculty on the basis of race, color, national or ethnic origin, religion, age, sex, marital or veteran status, sexual orientation, physical disability, or any other legally protected status.

Our graduates are allied health professionals who administer ionizing radiation to humans for diagnostic, therapeutic or research purposes. They perform CT procedures and related techniques producing data at the request of and interpretation by a licensed independent practitioner. Employment opportunities include education, sub-specialization, sales and applications, and administration.

Accreditation
Middlesex Community College is accredited through the New England Association of Schools and Colleges (NEASC) and authorized by the Connecticut Board of Regents.

Advisement
Questions regarding Program advisement should be directed to:

> Judy Wallace, Professor of Biology/Anatomy & Physiology
> Coordinator, Computed Tomography Program
> Wheaton Hall, room 209
> (860) 343-5780
> jwallace@mxcc.edu

Application Process
The Computed Tomography (CT) Certificate program is a selective admissions program. All application materials (including all final official transcripts) must be sent to the Office of Enrollment Services at Middlesex Community College no later than *June 15, 2018*. *Late applications and transcripts will not be accepted.*

All applicants are required to submit the following by the June 15, 2018 deadline:

- ✓ **General Middlesex Community College application** with $20 application fee.

- ✓ **Signed and completed Computed Tomography (CT) Application.** The application is available online at http://mxcc.edu/future-students/selective-admissions/ or may be picked up at the Office of Enrollment Services (Founders Hall).

- ✓ Copy of **current certification document** from ARRT or NMTCB.

- ✓ Copy of **current license** to practice as a Radiographer in your state of practice (if applicable).

- ✓ **Official college or university transcripts** from all colleges ever attended. If you have completed courses at Middlesex Community College you do not need to submit a Middlesex transcript. If you completed your Radiography education through a **hospital-based program**, a complete academic transcript of that program is required.

- ✓ **Proof of high school completion.** This may be done by submitting official high school transcripts or a photocopy of your high school diploma or **GED certificate**.

- ✓ **Immunization Records**
  - o This includes documentation for Measles, Mumps, Rubella (MMR) and Varicella (chicken pox) and/or titres.
  - o Students must also have a 2 step – Tuberculosis test record documentation within one year of the start of the program or a Quantiferon Gold test within one year of the start of the program.
  - o Clinical sites also require a non-reactive PPD test (Mantoux not more than one year old) and flu shot of all students. Additional immunizations may apply and will be shared with students at the time of their acceptance into the program.

All transcripts must be final transcripts. *All transcripts (including those with course withdrawals, course failures, and remedial/developmental courses) must be submitted regardless of the age of the transcripts and applicability to the Computed Tomography (CT) program. This includes any college credits earned while in high school.*

Interview Process
After the application deadline has passed, the Computed Tomography (CT) Review Committee will review all applications to determine if the applicant is eligible for consideration. Eligible applicants will be contacted by the Office of Enrollment Services if selected for an interview. Not all eligible applicants will be contacted for an interview. ***Interviews will take place in mid-July 2018.***

Selection Process
The program starts in the fall 2018 semester. Decisions will be available in late-July 2018.

Students are ranked by the interview committee based on their answers to a prescribed question format. The top scoring interviewees are submitted for background checks. Based on the background checks, these candidates will be invited to join the program. Those students not chosen during the interview session may apply for the next academic year.

Applicants who are not selected will need to submit a new application if they want to be considered for admission to the program the following year. Several Computed Tomography application credentials will need to be resubmitted. Please review the college website for any updates regarding the admissions guidelines and process. Applicants may contact the Office of Enrollment Services at (860) 343-5719 or email (MX-enrollmentservices@mxcc.edu) to see what general application information is still on file.

MXCC Computed Tomography (CT) Program of Study

The program of study reflects a curriculum plan that all matriculated students enrolled in the Computed Tomography (CT) program are required to complete. Students must earn a "C" or higher in all program courses. Students who fail to complete required courses or meet the minimum grade requirement may be dismissed from the program. There may be pre-requisite courses that must be successfully completed prior to taking listed courses. *It is the responsibility of the students to know and meet all requirements.*

Semester 1, Fall (9 credits)		Credits
CAT*201	Cross Sectional Anatomy I	1
CAT*202	CT Image Display, Post Processing & Quality Assurance I	2
CAT*203	CT Procedures & Instrumentation I	2
CAT*204	Clinical Experience I	4

Semester 2, Spring (12 credits)		Credits
CAT*205	Cross Sectional Anatomy II	2
CAT*206	CT Image Display, Post Processing & Quality Assurance I	3
CAT*207	CT Procedures & Instrumentation II	3
CAT*208	Clinical Experience II	4

Total Program Credits: **21 credits**

Program Mission Statement

The Middlesex Community College Computed Tomography Program is dedicated to educating and training students to become certified, professional, and competent technologists in the field of Computed Tomography.

The mission statement is realized through the attainment of the following goals:

1. Students will be clinically competent.
2. Students will use critical thinking skills in both routine and non-routine clinical situations.
3. Students will demonstrate professional behaviors.
4. Students will communicate effectively.

Student Learning Outcomes
1. Students will correctly apply positioning skills for patient procedures based on patient assessment.
2. Students will select appropriate computer factors for patient procedures based on established protocols.
3. Students will practice radiation safety.
4. Students will use effective oral communication skills.
5. Students will practice written communication skills.
6. Students will demonstrate professional behaviors.

Technical Standards

Technical standards are the physical, cognitive, and emotional skills required to successfully complete the program and perform the functions of a Computed Tomographer. If selected, applicants will be required to undergo a physical exam and submit documentation that the accepted candidate can meet these requirements or provide reasonable adjustments.

1. **Motor Skills:** The student must possess sufficient motor capabilities to execute the movements and skills required to safely perform the functions of a radiographer/tomographer. These include, but are not limited to:

   - Standing and walking without support are required up to 100% of the time while assigned to the clinical setting,
   - Must be able to squat and rise without assistance,
   - Reach up to six feet off the floor,
   - Perform physically strenuous tasks to include raising patients in bed, moving, transporting, lifting, or transferring patients to/from tables, stretchers, beds or wheel chairs,
   - Manipulate, move, and adjust various equipment,
   - Perform all physical requirements with sufficient speed and accuracy while upholding established standards of procedure quality and patient safety.

2. **Sensory Ability:** The student must possess the ability to obtain information in the classroom, laboratory, or clinical settings through observation, auscultation, palpation and other measures, including but not limited to:

   Visual Acuity
   - Correctable near vision 20/40 in both eyes,
   - Correctable far vision 20/40 in both eyes,
   - Ability to use computer terminals, other digital equipment, and various technological controls,
   - Ability to monitor a patient and equipment during procedures,
   - Ability to assess computerized/radiographic images,
   - Ability to interpret and access the environment.

   Hearing
   - Correctable hearing to pass a whisper test at 10 feet,
   - Ability to hear audible signs of patient distress, equipment operation/malfunction, overhead announcements, and safety warnings.

3. **Communication Ability:** The student must be able to effectively communicate with peers, faculty, clients and their families, and other health care providers. This includes but is not limited to:

   - Ability to read at a competency level that allows one to safely carry out the essential functions of an assignment (examples: hand written chart data, printed policy and procedures manual),
   - Ability to effectively interpret and process information,
   - Effective verbal and written communication with clients and their families, and other health care professionals,
   - Effective verbal communication to provide optimal customer service, obtain accurate clinical history information, and direct patients during radiographic/tomographic procedures,
   - Literacy sufficient to access information and to document and communicate effectively via computer.

4. **Behavior:** The student must be capable of exercising good judgment, and tolerating close and direct physical contact with a diverse population. This includes but is not limited to:

   - The ability to foster and maintain cooperative and collegial relationships with classmates, instructors, other health care providers, clients and their families,
   - The ability to multi-task, handle stressful situations, and adequately respond to urgent client care and emergency situations,
   - To treat all clients and their families with maximum respect, empathy, and dignity.

5. **Critical Thinking:** The student must possess sufficient abilities in the areas of calculation, critical problem solving, reasoning, and judgment to be able to comprehend and process information within a reasonable time frame as determined by the faculty and the profession. The student must be able to prioritize, organize and attend to tasks and responsibilities efficiently. This includes but is not limited to:

   - Conceptualize human anatomy in three dimensions,
   - Ability to collect, interpret, and analyze written, verbal, and observed data,
   - Utilize basic mathematical concepts and arithmetic formula to perform exposure factor calculations and other technical problems related to radiographic image quality,
   - Ability to prioritize multiple tasks, integrate information and make appropriate decisions,
   - Ability to act safely and ethically in the clinical college laboratory and in all clinical environments,
   - Understand and apply didactic theory of radiographic principles to their respective clinical applications.

IMPORTANT INFORMATION FOR STUDENTS ACCEPTED INTO THE COMPUTED TOMOGRAPHY PROGRAM

CLINICAL SITES

Clinical learning experiences are planned as an integral part of the program and are held at a variety of healthcare settings, such as hospitals, extended care facilities, and selected community health centers. Students are responsible for arranging their own transportation to and from assigned clinical sites. Clinical experiences may be assigned during daytime, evening, or weekend hours. Assignment of clinical sites is at the discretion of the faculty. Clinical sites could be within an hour radius of the college, and may require a mandatory parking fee.

CRIMINAL BACKGROUND CHECKS

Several clinical sites are now requiring that criminal background checks be completed on any students who will be attending a clinical rotation at those facilities. Students who are found guilty of having committed a felony/misdemeanor may be prevented by a facility from participating in clinical experiences at particular clinical sites. If you cannot participate in a clinical rotation at an assigned facility, you may not be able to complete the objectives of the course and of the program.

HEALTH REQUIREMENTS

All Computer Tomography students must comply with all medical requirements (including a drug screening) and will be given supplemental information during the interview process.

WAIVER OF LICENSURE GUARANTEE

Upon successful completion of the Computed Tomography program, the graduate is required to take the professional registry exam sponsored by the American Registry of Radiologic Technologists. Completion of the Computed Tomography program does not guarantee a passing score on the exam.