



# **Radiologic Technology**

## **Program Review Year 2019-2020**

Program Review Members:

Angela Bowers-Radiologic Technology Program Coordinator  
Pat Willett-Radiologic Technology Clinical Coordinator  
Jennifer Fielding-Coordinator of Library Services  
Erin Colstad-Simulation Lab Coordinator  
Jennifer Jackson-Stevens-Respiratory Program Coordinator

# Mission Statement

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**Mission:** The mission of the Radiologic Technology Program is to graduate professional, skilled entry level technologists who meet and strive to exceed the healthcare needs of area facilities. The technologists will be prepared to provide high quality imaging and patient care in the current evolving healthcare environment.

# Joint Review Committee on Education in Radiologic Technology (JRCERT) 1 of 2

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- Mission

The Joint Review Committee on Education in Radiologic Technology (JRCERT) promotes excellence in education and elevates the quality and safety of patient care through the accreditation of educational programs in radiography, radiation therapy, magnetic resonance, and medical dosimetry.

# Joint Review Committee on Education in Radiologic Technology (JRCERT) 2 of 2

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- Six Standards

*Standard One-Integrity*

*Standard Two-Resources*

*Standard Three-Curriculum and Academic Practices*

*Standard Four-Health and Safety*

*Standard Five-Assessment*

*Standard Six-Institutional/Programmatic Data*

# Goals of Program

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## **1. Students/Graduates will demonstrate clinical competence**

Students will apply appropriate positioning skills to achieve diagnostics radiographs.

Students will be able to apply knowledge in radiation safety practices.

## **2. Students will demonstrate problem solving and critical thinking skills.**

Students will be able to adapt to new circumstances, difficult cases or unusual situations to produce acceptable diagnostic images.

Students will be able to adapt positioning and technical factors for trauma patients.

Students/Graduates will adjust technical factors for varying patient conditions and pathologies.

## **3. Students/Graduates will communicate effectively.**

Students/Graduates will demonstrate appropriate oral communication skills.

Students will demonstrate competent written & oral presentation skills.

## **4. Students/Graduates will demonstrate an understanding of professionalism.**

Students/Graduates will demonstrate professional behavior.

Students will be able to apply knowledge in diversity.

# NECC's Mission and Core Values

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- **Mission-** At NECC, our mission is to educate and inspire our students to succeed. We provide a welcoming environment focused on teaching and learning—strongly committed to unlocking the potential within each student and empowering our diverse community of learners to meet their individual goals. We are a community college dedicated to creating vibrant and innovative opportunities that encourage excellence and enhance the cultural and economic life of our region.
- **Core Values-** Student Engagement, Collaboration, Personal and Professional Growth, Respect, Access and Opportunity, Excellence



# **Radiologic Technology Advisory Board**

Members: Hospital Managers, Radiologist, Radiation  
Control Board Member, Retired NECC Faculty and  
Alumni

# Clinical Sites

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- Anna Jaques Hospital – 6 students
- Lawrence General Hospital- 6 students
- Holy Family Hospital Methuen- 8 students
- Lowell General Hospital- 10 students
- Nashoba Valley Medical Center- 4 students



Graduation Class	Graduation Rate	Number of Graduates / Initial Enrollment
Graduation Class of 2014	84%	16/19
Graduation Class of 2015	82%	14/17
Graduation Class of 2016	86%	14/16
Graduation Class of 2017	80%	12/15
Graduation Class of 2018	94%	17/18
Five Year Average	85%	73/85

### **GRADUATION RATE**

The annual benchmark for the program completion rate is 75%. The cumulative graduation rates for students admitted to the Radiography program.

<b>Graduation Class</b>	<b>Pass Rate on 1<sup>st</sup> Attempt</b>	<b>Number of Graduates</b>
<b>Graduation Class of 2014</b>	14	16
<b>Graduation Class of 2015</b>	12	14
<b>Graduation Class of 2016</b>	12	14
<b>Graduation Class of 2017</b>	11	12
<b>Graduation Class of 2018</b>	15	17
<b>Five Year Average</b>	88%	73

**PASS RATE FOR THE AMERICAN REGISTRY OF RADIOLOGIC  
TECHNOLOGISTS FOR RADIOGRAPHY (ARRT)**

The cumulative pass rates for the ARRT exam

Graduation Class	Employment Rate	Number of Graduates Placed / Number Seeking Employment
Graduation Class of 2014	88%	7/8
Graduation Class of 2015	100%	14/14
Graduation Class of 2016	100%	14/14
Graduation Class of 2017	100%	10/10
Graduation Class of 2018	100%	17/17
Five Year Average	97%	62/63

**EMPLOYMENT RATE**

The employment rate for graduates of the Radiography program is based on graduates who are known to be actively seeking employment and reporting working in either a full-time or part-time position as a radiographer within twelve months of graduation.

# Program Strengths

- Full eight-year accreditation with no citations
- Faculty and Clinical Instructors-committed and dedicated
- Equipment-current technology with x-ray room, skeletons, and phantoms
- Pass Rate on the ARRT (American Registry of Radiologic Technologists) certification examination
- Administration and Administrative-very supportive
- High number of applicants applying



Skeleton for each student and instructors.

# Program Challenges

- Clinical site decrease in the number of students accepted.
- There are many Radiologic Technology programs in New England.
- Adjunct faculty do not stay with the low pay.



Clinical Sites 2019-2020

# Job Opportunities

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- Industry
  - *Hospitals, Outpatient Care Centers, Mobile Imaging, Surgical Centers and Physician Offices*
- Primary Employment States
  - *Massachusetts*
  - *New Hampshire*
- Employment Hours
  - *Full-time, Part-time and Per Diem*
- Wage
  - *\$22-\$26 an hour (NECC 2019 Graduates)*
  - *\$23.00 an hour (Bureau of Labor Statistics 2018)*



### TRAUMA SHOULDER

**Types of Injuries:**

- Acromioclavicular Joint Separation
- Glenohumeral Joint Dislocation
- Fractured Clavicle
- Fractured Humerus
- Fractured Scapula

**Diagnosis:**

- Physical Exam
- X-ray
- CT Scan
- MRI

**Treatment:**

- Immobilization
- Pain Management
- Surgery
- Physical Therapy

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### As Low As Reasonably Achievable

# ALARA

**REDUCING PATIENT DOSE**  
Overexposure to radiation can cause long term health effects. ALARA has been established to help reduce radiation exposure.

**COLLIMATION**  
Helps reduce patient dose by restricting the x-ray beam field size.  
Improves image quality.

**TECHNIQUE**  
Radiographers manipulate a number of technical factors to control the amount of radiation used to create a diagnostic image.

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### PRINCIPLES OF RADIATION PROTECTION

**Dosimeters**  
• Measure radiation exposure

**Shielding**

- Lead gloves
- Lead aprons
- Lead glasses
- Lead wall/glass

**Distance**

- 6 feet away
- Inverse square law

**Danger radiation risk**

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### GERIATRIC INJURIES

At least 2.5 million geriatric emergency room visits per year are related to fall-related injuries.

**FRACTURES:**  
Common fractures for geriatric patients include: hip, wrist, spine, humerus, shoulder, and ribs. Many factors make geriatric patients more likely to have severe fractures, including osteoporosis.

**RISKS:**  
1 out of 3 people over the age of 65 will experience a fall each year. Factors that make geriatric patients more likely to break a bone include: decreased bone density, loss of muscle mass, physical inactivity, vision and balance issues.

**PREVENTION:**  
Geriatric patients can do many things to minimize their chance of fracturing a bone. These include: daily supplements of vitamin D & calcium, weight bearing exercises, and walking aids.

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NSCC Class of 2018  
Taylor Cohen, Jami Coleman, Wilford  
Coffman, Ryan Gendron,  
Caitlin Kalland, Maria Chiswick,  
Christina Brantley, Tracy Chiswick,  
Christina Brantley

Class Project- Class of 2018 and Class of 2019

# References

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*JRCERT Mission, Vision, Scope and Core Values.* (2019). JRCERT: Joint Review Committee on Education in Radiologic Technology. Retrieved from <https://www.jrcert.org/mission/>

*Mission Statement & Core Values.* (2019). Northern Essex Community College. Retrieved from <https://www.necc.mass.edu/discover/mission-statement-core-values/>

*Occupational Employment and Wages, May 2018: Radiologic Technologists.* (29 Mar 2019). Bureau of Labor Statistics. Retrieved from <https://www.bls.gov/oes/current/oes292034.htm>