

SCHOOL OF RADIATION THERAPY

Radiation therapy is the art and science of treatment delivery to individuals to restore, improve and enhance performance, diminish or eradicate pathology, facilitate adaptation to the diagnosis of malignant disease and to promote and maintain health. The practice of radiation therapy is performed by competent radiation therapists who deliver care to the patient in the therapeutic setting and are responsible for the simulation, treatment planning and administration of a prescribed course of radiation therapy.

The School of Radiation Therapy provides students with the necessary knowledge and skills to meet the program's objectives through a carefully planned academic and clinical curriculum. The Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder School of Radiation Therapy offer a program that will allow students to earn a Diploma in Radiation Therapy. Students will also earn a Bachelor in Science Degree through the Amplified Program with Union County College and Thomas Edison State College.

Students that complete the General Education Component of the program at Union County College will also earn an Associates in Science degree from Union County College.

PHILOSOPHY

The Faculty of the School of Radiation Therapy endeavors to provide radiation therapy students with the necessary technical and academic skills and clinical competencies within the educational process that will allow them to acquire the knowledge and skills needed to perform the roles and accept the responsibilities of a radiation therapist.

This includes but is not limited to the following:

- Patient care
- Simulation
- Treatment planning
- A high degree of accuracy
- Awareness of safety issues
- Sensitivity to the emotional and physical needs of the patient
- Professional judgement and critical thinking

The Faculty believes that individuals are entitled to the opportunity to achieve career goals. The Faculty believes that the fostering and promoting of an attitude toward excellence in performance, pride, responsibility and concern for patients, co-workers and peers is an integral step toward the development of professionalism.

MISSION STATEMENT

The School of Radiation Therapy is committed to provide a comprehensive and quality education and to provide the community with competent and compassionate entry-level radiation therapists to meet the health care needs of individuals within our region as defined in the Medical Center's Mission and Goals.

PROGRAM GOALS

- ❖ The program will provide the healthcare community with qualified entry level radiographers.
- ❖ The program will enable the students to develop and achieve their educational goals and competencies in Radiography.
- ❖ The program will enable students to develop and apply the professional ethics and practices of a Radiographer.
- ❖ The program will enable student to acquire and demonstrate appropriate problem solving and critical thinking skills of a healthcare provider and will enable the students to demonstrate those skills both didactically and clinically.

OUTCOMES ASSESSMENT

- ❖ Students will be adequately prepared to pass the ARRT certification examination.
- ❖ Students will be adequately prepared to perform as entry-level radiographers within the time frame consistent with the program and goals.
- ❖ Graduates will achieve an employment rate consistent with the program mission and expected outcome.
- ❖ Students will be competent in performing routine examinations.
- ❖ Students will possess knowledge of radiographic procedures.
- ❖ Students will employ appropriate patient care practices of a healthcare professional.
- ❖ Students will demonstrate knowledge of and apply radiation protection to patients, themselves, and others.
- ❖ Students will exercise ethical behavior and display sound professional judgment in clinical practice.
- ❖ Students will demonstrate effective communication skills with patients, other staff, family members, and community members in the oral, written, and reading arenas.
- ❖ Students will apply appropriate problem solving/critical thinking skills when dealing with non-traditional radiographic examinations.
- ❖ Students will demonstrate knowledge of and pursue opportunities for personal and professional growth after graduation.

PROGRAM OBJECTIVES

Graduates of the School of Radiation Therapy will be able to:

- ❖ Deliver a planned course of radiation therapy
- ❖ Verify the mathematical accuracy of the prescription for radiotherapy
- ❖ Maintain daily records and document technical details of the radiation treatment administered
- ❖ Observe the clinical progress of the patient undergoing radiation therapy and observe the first signs of any complication
- ❖ Provide patient care and comfort essential to radiation therapy procedures
- ❖ Within the scope of practice for a radiation therapist, detect equipment malfunctions; report same to the proper authority; and know the safe limits of equipment operations
- ❖ Understand the functions, limitations and utilization of radiation therapy equipment and treatment accessories and detect malfunctioning equipment
- ❖ Apply the rules and regulations for radiation safety, detect radiation hazards and other hazards to patient welfare within the scope of practice for the radiation therapist
- ❖ Simulate a prescribed course of radiation therapy treatment
- ❖ Construct immobilization and beam-directional devices for external beam radiation therapy
- ❖ Assist in exam room procedures, patient, patient follow-up, patient educational procedures for the radiation therapy patient
- ❖ Provide basic patient care
- ❖ Communicate clearly and effectively in written, verbal and nonverbal form
- ❖ Demonstrate an awareness of the ethical and legal responsibilities

AMPLIFIED PROGRAM

The School of Radiation Therapy at Muhlenberg Regional Medical Center offers an amplified program with Union County College and Thomas Edison State College that leads to a diploma in Radiation Therapy from Muhlenberg and a Bachelor of Science degree in Applied Science and Technology from Thomas Edison State College and an Associates in Science from Union County College. (Students that did not hold at least an Associates degree upon entry.)

This cooperative program offers the advantage of a hospital-based radiation therapy program, as well as college-credited academic courses. The college credits granted for the radiation therapy courses enable graduates to complete a baccalaureate degree.

The Program includes the classroom and clinical experience specific to radiation therapy technology. The professional courses begin only in the Fall semester and continue for two full years.

The program grants a diploma to all graduates. Thomas Edison State College grants a Bachelor of Science degree in Applied Science and Technology to all program graduates.

The School of Radiation Therapy's favorable student-to-faculty ratio, strong emphasis on clinical competency and state-of-the-art equipment assures students a high quality clinical experience.

The 12 month program which is accredited by the New Jersey Department of Environmental Protection and the Joint Review Committee on Education in Radiologic Technology and approved by the Veterans Administration, will be replaced by a 24 month program. The School of Radiation Therapy is seeking accreditation for the new 24 month program.

GENERAL ADMISSION POLICY AND REQUIREMENTS

Muhlenberg Regional Medical Center School of Radiation Therapy seeks to admit candidates who are best qualified to meet the academic requirements of the Amplified Radiation Therapy Program, and who, by reason of academic potential, purpose, and maturity, show promise of successfully completing the program.

Candidates must file a completed admissions application form, all high school and college transcripts, SAT/ACT scores, GED certificate with scores, Radiography program transcript, three (3) letters of recommendation, signed Consumer Information Form and the minimum 250 word essay, as described on the application form.

The Muhlenberg Regional Medical Center Schools of Medical Imaging and Therapeutic Sciences requires each applicant to take an entrance examination. The examination is an essential part of the application process and should be completed as soon as possible. Upon receipt of a completed application, the Admissions Office will forward information, including test dates, to the candidate.

The Muhlenberg Regional Medical Center School of Radiation Therapy selects students for the Program based on the results of a selection scoring mechanism and recommendations from employers, educators, and/or volunteer supervisors. The selection scoring mechanism is used in the assessment of each applicant and provides a ranking system. Points are awarded for Radiography Program GPA, pre-requisite college course GPA and the essay.

The number of students accepted to begin the program varies, dependant on the number of clinical sites available to us each September. Accepted students must submit a non-refundable acceptance fee.

Program applicants must be a graduate of an accredited Radiography program, have completed that program with a minimum GPA of 2.5 (C+) and be ARRT (R) and/or LRT (R) certified. All applicants must have a "C+" or better in the following pre-requisite courses:

Human Anatomy & Physiology I & II (not more than 5 years old)

College Algebra (3 cr.)

English Composition I & II (3 cr. & 3 cr.)

Computer Science (3 cr.)

Humanities Electives (6 credits)

Psychology I (3 cr.)

Social Science Elective (3 cr.)

Applicants that have not completed the pre-requisite college courses may be admitted to the General Education component of the program and upon successful completion of that component will be admitted into the Post General Education component of the program.

Satisfaction of the minimal standards does not guarantee admission, since the number of qualified applicants may exceed the number of available seats. As a consequence, some well qualified applicants may not be accommodated.

FOR APPLICANTS WITH TRANSCRIPTS FROM SCHOOLS OUTSIDE OF THE UNITED STATES

Applicants with transcripts from schools outside the US must first have the transcript translated and evaluated. Contact one of the evaluation agencies listed below. *Allow ample time for processing.* The Schools of Nursing, Medical Imaging & Therapeutic Sciences is not affiliated with either of these agencies.

Applicants are required to obtain a course-by-course evaluation of their high school education and any college course work.

**World Education Services, Inc.
P.O. Box 745, Old Chelsea Station
New York City, NY 10113-0745
212-966-6311**

**International Consultants of Delaware, Inc.
109 Barksdale Professional Center
Newark, DE 19711
302-737-8715**

All applicants from schools outside the US must show proof of Permanent Residency.

ADMISSION REQUIREMENTS

STUDENT RE-ADMISSION

A student who has withdrawn from the School of Radiation Therapy and who seeks reinstatement must submit an application form and an application fee. If the student attended other institutions since leaving the School of Radiation Therapy, official transcripts from these institutions must also be submitted.

Students who have been dismissed from the School will not be eligible for re-admission.

Students who are readmitted in to the School of Radiation Therapy must pay the non-refundable acceptance fee.

OBSERVATION PROGRAM

Making a career choice is one of the most important decisions an individual can make in his/her lifetime. Faculty and administration at the Muhlenberg Regional Medical Center School of Radiation Therapy recognize this and have developed a program whereby an interested candidate will spend a morning observing in JFK Medical Center's Department of Radiation Therapy.

The observer is assigned to a Clinical Supervisor from 8:30 to 11:30 a.m. at JFK Medical Center's Department of Radiation Therapy. Please contact the program to schedule an appointment. For many candidates, this experience has provided a much better insight into the profession of radiation therapy and has helped them to formulate their final career choice decisions. Observation is required for all applicants.

To participate in the Observer Program, contact the School of Radiation Therapy, (908) 668-2885 or 668- 2154.

CLINICAL FACULTY

The Faculty of Muhlenberg Regional Medical Center School of Radiation Therapy coordinates all clinical education.

Clinical rotations are conducted at various clinical locations. Students rotate through the clinical education centers.

Clinical competence is an integral component of the educational process. The faculty is directly responsible for student assignments and closely evaluates the student's progress and level of competence.

Students receive their technical instruction from the radiation oncology staff at the clinical education sites they are assigned to. Students learn first from observing how radiation therapy procedures are done, then move on to instructed hands-on and finally to working in the place of one of the radiation therapists while being observed by the other therapist.

ACADEMIC REGULATIONS AND PROCEDURES

HONORS

Students carrying 15 or more credit hours during one semester are eligible for the Dean's List of Honor Students if they attain a grade point average of 3.0 with no grade lower than a "C", and for the President's List of Honor Students if they achieve a grade point average of 3.25 with no grade lower than a "B".

Students carrying 12 credit hours during one semester are eligible for the Dean's List of Honor Students if they attain a grade point average of 3.25 with no grade lower than "C", and the President's List of Honor Students if they achieve a grade point average of 3.75 with no grade lower than "B". Part-time students are placed on the honors list if they maintain these averages for 12 credit hours in two consecutive semesters.

CLINICAL GRADING

The grading policy for clinical competency is based on a pass/fail system. The grades received from Rotation Performance Evaluations, the Faculty Evaluation and the case studies are averaged together. In order to pass the clinical component of the program, the student must receive an averaged grade of 76 or higher, have 100% proficiency on the required clinical competencies for all semesters and have successfully completed the Program Faculty Evaluations.

ACADEMIC PROBATION AND DISMISSAL

A student who fails to achieve at least the minimum required grade for each course will be placed on probation. The student is then required to achieve the minimum required grade for every subsequent course. Failure to do so will result in dismissal.

DISMISSAL

A student may be dismissed from the program if he/she:

1. Has been placed on academic probation and fails to achieve the minimum course grade in subsequent courses.
2. Fails to complete the program within the published time frame (5 years).
3. Is found guilty of violations against the school community, the Medical Center community, civil and/or criminal laws that are of such nature that the administration of the School of Medical Imaging & Therapeutic Sciences and of Muhlenberg Regional Medical Center, deem dismissal to be warranted.

ATTENDANCE

Students are required to be in attendance for all class and clinical sessions. Penalties for non-attendance and/or flagrant absenteeism and/or tardiness are reflected in a student's grades and are outlined in the Student Handbook.

GRADUATION

Students are eligible for graduation from the School of Radiation Therapy when all courses and clinical competencies have been successfully completed. Successful completion requires a cumulative grade point average of 2.5, no grade lower than a "C+" and all clinical competencies achieved with 100%.

All financial obligations must have been fulfilled. A diploma in Radiation Therapy is awarded by Muhlenberg Regional Medical Center and a Bachelor degree in Applied Science and Technology is awarded by Thomas Edison State College to all graduates of the program. Graduates that have completed the General Education component of the program at Union County College will be awarded an Associates in Science degree from Union County College.

NATIONAL EXAMS AND STATE LICENSURE

Upon completion of all Program courses (didactic and clinical), the student is awarded a diploma in Radiation Therapy from Muhlenberg Regional Medical Center. This allows the student to apply to sit for the American Registry of Radiologic Technologists examination in Radiation Therapy. The graduate must pass the exam to apply for a license to practice radiation therapy in New Jersey. Many other states also require licensing based on the exam results.

STUDENTS RIGHTS AND RESPONSIBILITIES

All members of the Schools of Medical Imaging & Therapeutic Sciences have the right to appeal certain decisions. The Schools of Medical Imaging & Therapeutic Sciences makes a distinction between acts involving academic matters and other conduct, which may be subject to disciplinary action.

The Schools guarantee to all students due process relative to both academic and non-academic disciplinary actions. This guarantee is affected through the appeals process of the Schools of Medical Imaging & Therapeutic Sciences and is outlined in the Student Handbook.

Infractions of rules and regulations made known by the Schools of Medical Imaging & Therapeutic Sciences administrators, Muhlenberg Regional Medical Center, any one of the clinical education sites, the State of New Jersey, the County of Union, the city of Plainfield, or the federal government may lead to disciplinary action.

The Schools and all students are held responsible for knowing the contents of the Student Handbook. Failure to read these publications or posted official notices by school administrators does not excuse members of the school community from the rules and regulations in effect.

The Student Handbook is distributed upon acceptance into the program. When a candidate accepts enrollment to the Schools of Medical Imaging & Therapeutic Sciences, he/she submits acknowledgment of receipt of the Student Handbook with the acceptance fee.

Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools of Medical Imaging & Therapeutic Sciences, Union County College and Thomas Edison State College, while conducting the Amplified Radiation Therapy Program, remain autonomous institutions and establish their individual policies and procedures.

The major areas of difference in policy, in which Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools of Medical Imaging & Therapeutic Sciences policy does not take precedence, include recording and clearing incomplete grades in non-radiation therapy courses, attendance policy for non-radiation therapy courses, challenge examinations in non-radiation therapy courses and conduct on the Union County College campuses which is subject to disciplinary action and the associated Union County College/Thomas Edison State College judicial process.

Therefore, all students, being dually enrolled in the three institutions, must be knowledgeable of their rights and responsibilities not only at Muhlenberg Regional Medical Center Harold B. and Dorothy A. Snyder Schools of Medical Imaging & Therapeutic Sciences, but also at Union County College and Thomas Edison State College. Every student is, therefore, advised to become familiar with the **Union County College Student Handbook, the Union County College Catalog, Thomas Edison State College Student Handbook, the Thomas Edison State College Catalog and other college publications.**

**MUHLENBERG REGIONAL MEDICAL CENTER HAROLD B. AND DOROTHY A. SNYDER
SCHOOL OF RADIATION THERAPY
CURRICULUM**

RADIATION THERAPY PRE-REQUISITE GENERAL EDUCATION CURRICULUM

| Course | Lecture | Lab | Credit | Course | Lecture | Lab | Credit |
|--------------------|---------|-----|--------|-------------------------|---------|-----|-----------|
| ENG 101 | 3 | | 3 | MAT 119 | 3 | | 3 |
| ENG 102 | 3 | | 3 | CIS 100 | 2 | 2 | 3 |
| BIO 105 | 3 | 1 | 4 | Social Science Elective | 3 | | 3 |
| BIO 106 | 3 | 1 | 4 | Humanities Elective* | 6 | | 6 |
| PSY 101 | 3 | | 3 | Total Credits | | | 35 |
| PSY 102 OR SOC 101 | 3 | | 3 | | | | |

* Humanities Electives must be taken at Union County College. Up to 29 credits may be transferred in.

FIRST SEMESTER (FALL) FIRST YEAR

| Course | Lecture | Lab | Credit |
|---|---------|-----|-----------|
| PHY 125 Elements of Physics | 3 | 1 | 4 |
| MRAT 100 Basics of Radiation Therapy | 3 | | 3 |
| MRAT 102 Radiation Therapy Patient Care | 2 | | 2 |
| MRAT 114 Ethics and Law | 2 | | 2 |
| PHI 212 Logic and Critical Thinking | 3 | | 3 |
| Semester Credits | 13 | 1 | 14 |

FIRST SEMESTER (FALL) SECOND YEAR

| Course | Lecture | Lab | Credit |
|--------------------------------------|---------|-----|----------|
| MRAT 140 Radiation Therapy Pathology | 2 | | 2 |
| MRAT 106 Quality Management | 2 | | 2 |
| MRAT 135 Radiation Biology | 2 | | 2 |
| CLPT 03 Clinical | 0 | | 0 |
| Semester Credits | 6 | | 6 |

SECOND SEMESTER (SPRING) FIRST YEAR

| Course | Lecture | Lab | Credit |
|--------------------------------|---------|-----|-----------|
| MRAT 104 Treatment Planning I | 4 | | 4 |
| MRAT 112 Neoplastic Diseases I | 4 | | 4 |
| MRAT 118 Sectional Anatomy | 3 | | 3 |
| CLPT 01 Clinical | 0 | | 0 |
| Semester Credits | 11 | | 11 |

SECOND SEMESTER (SPRING) SECOND YEAR

| Course | Lecture | Lab | Credit |
|------------------|---------|-----|----------|
| MAT 129-OL | 3 | | 3 |
| COM-209-GS | 3 | | 3 |
| SOS-492-OL | 3 | | 3 |
| CLPT 04 Clinical | 0 | | 0 |
| Semester Credits | 9 | | 9 |

THIRD SEMESTER (SUMMER) FIRST YEAR

| Course | Lecture | Lab | Credit |
|---------------------------------|---------|-----|----------|
| MRAT 204 Treatment Planning II | 4 | | 4 |
| MRAT 212 Neoplastic Diseases II | 4 | | 4 |
| CLPT 02 Clinical | 0 | | 0 |
| Semester Credits | 8 | | 8 |

THIRD SEMESTER (SUMMER) SECOND YEAR

| Course | Lecture | Lab | Credit |
|------------------|---------|-----|----------|
| PHY-112-OL | 3 | | 3 |
| HPS-200-OL | 3 | | 3 |
| CLPT 05 Clinical | 0 | | 0 |
| Semester Credits | 6 | | 6 |

TRANSFERRED CREDITS

| Course | Lecture | Lab | Credit |
|----------------------------|---------|-----|-----------|
| General Education Elective | 3 | | 3 |
| Free Electives | 18 | | 18 |
| Radiography Clinical | 6 | | 6 |
| Radiography Physics | 3 | | 3 |
| Imaging Modalities | 4 | | 4 |
| TOTAL CREDITS | | | 34 |

TOTAL REQUIRED DEGREE CREDITS

| Course | Lecture | Lab | Credit |
|--|---------|-----|------------|
| Total Associates Degree Credits | | | 74 |
| Total Bachelors Degree Credits | | | 123 |