




# RADIATION THERAPY TECHNOLOGY

A.A.S.

Offered at these campuses:

 **City Campus** (Downtown Buffalo)

Radiation therapy is one of the most sophisticated tools of modern medical science. Radiotherapy, the treatment of disease with ionizing radiations, may be used alone or in combination with surgery or chemotherapy. The primary responsibility of the radiation therapy technologist is to plan and implement the treatment program prescribed by the radiation oncologist. In recent years, the use of radiation in treating cancer has increased, and with this rise has come the demand for radiation therapy services.

The Radiation Therapy Technology curriculum is designed to provide students with the knowledge and cognitive skills necessary for the competent performance as an entry-level radiation therapy technologist. Program graduates will have demonstrated numerous academic and clinical competencies consistent with the individual course objectives required within the program. Course objectives and competencies are developed from information provided by accreditation bodies, licensing agencies, and professional societies. The competencies listed below are an abbreviated list of clinical competencies.

## CAREER PATHS

**Hospitals; physicians' private practices; government agencies.**

## ADMISSIONS REQUIREMENTS

- Applicant must be a high school graduate or equivalent and have a high school average of at least 88 percent;
- Applicant should have completed two years of high school laboratory science courses (such as chemistry with lab, or physics with lab) with a minimum grade of "C"; or completed a college-level anatomy and physiology course with lab within the past five years of anticipated program start date;
- College: Anatomy and Physiology I or transfer equivalent must be one of the two required pre-req sciences courses with a grade of "C" or better. (It is recommended the completion of Anatomy and Physiology be done during a full academic semester);
- High School : Have completed two years of mathematics with a minimum grade of "C." (Algebra and geometry are required; trigonometry is recommended.);
- SUNY Erie pretest scores of MTLV4 and E80;
- College: A minimum GPA of 3.0 at all undergraduate colleges attended within the last 5 years. Appropriate college math (MT 125 required) and two (2) laboratory science courses;
- High School & College: It is strongly recommended interested students meet with the program director or program counselor as admission into the program is based on academic qualifications and interview process once application is completed (available online mid Sept-Dec 31st the program starts the following Fall);
- An informational interview is required of all qualified applicants;
- Three recommendation letters are due at time of interview;
- Students are required to purchase health and accident insurance;
- All Students accepted into the program must submit a completed Allied Health Report and Physician's Certificate. The college reserves the right to deny acceptance into the Radiation Therapy Technology Program to students who have incomplete or unacceptable physical reports;
- Students should initiate the processing of all transfer credits for any courses indicated in the Radiation Therapy Curriculum Outline while in General Studies and/or before acceptance into the Radiation Therapy Program. Students should meet with a General Studies adviser for advisement and processing of transfer credits. Acceptance into General Studies does not guarantee future entrance into the Radiation Therapy Program; and
- The Radiation Therapy Program is committed to accepting the most qualified candidates regardless of gender, religion, age, race and other demographic factors. The departments acceptance committee shall be charged with screening applicants, reviewing and evaluating application files, interviewing the applicants, rating and ranking each candidate to establish a new class.

## PROGRAM COMPETENCIES

Upon completion of this program, the graduate will be able to:

- demonstrate professional, proficient communication and ethical interaction with patients and health-care providers;
- demonstrate the ability to effectively manage patient and medical information;
- demonstrate an understanding and appropriate safe use of radiation physics, equipment and quality assurance as it pertains to radiation therapy;
- demonstrate comprehension of biological and tissue tolerances in reference to proper radiation protection;
- demonstrate an understanding of didactic concepts related to treatment sites and tumors including but not restricted to radiation therapy treatment;
- localize treatment of volumes utilizing appropriate equipment

- and procedures;
- accurately calculate treatment doses and prescriptions;
- demonstrate knowledge of effective radiation treatment options and application of treatment plan.

## CURRICULUM

Total Degree Credits: **77.0**

### FIRST YEAR, FALL SEMESTER

<b>RA 100</b> Radiotherapy Technology I .....	3 cr
<b>RA 101</b> Lab/Clinical I .....	4 cr
<b>BI 150</b> Anatomy and Physiology I .....	3 cr
<b>BI 151</b> Laboratory for BI 150 .....	1 cr
<b>EN 100 or EN 110</b> based on department advisement .....	3 cr
<b>PH 210</b> Radiation Physics I .....	4 cr

### FIRST YEAR, SPRING SEMESTER

<b>RA 102</b> Lab/Clinical II .....	4 cr
<b>RA 120</b> Radiotherapy Technology II .....	3 cr
<b>BI 152</b> Anatomy and Physiology II .....	3 cr
<b>BI 153</b> Laboratory for BI 152 .....	1 cr
<b>PH 215</b> Radiation Physics II .....	3 cr

### FIRST YEAR, SUMMER SEMESTER

<b>RA 150</b> Summer Clinical .....	6 cr
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### SECOND YEAR, FALL SEMESTER

<b>RA 203</b> Lab/Clinical III .....	5 cr
<b>RA 230</b> Radiotherapy Technology III .....	3 cr
<b>BI 180</b> Radiation Biology .....	2 cr
<b>PH 220</b> Advanced Radiation Physics I .....	4 cr
<b>PS 100</b> General Psychology .....	3 cr*

### SECOND YEAR, SPRING SEMESTER

<b>RA 204</b> Lab/Clinical IV .....	5 cr
<b>RA 240</b> Radiotherapy Technology IV .....	3 cr
<b>BI 241</b> Applied Physiology .....	3 cr
<b>PA 250</b> Legal Issues in Health Care .....	3 cr*
<b>PH 225</b> Advanced Radiation Physics II .....	2 cr

### SECOND YEAR, SUMMER SEMESTER

<b>RA 250</b> Summer Clinical II .....	6 cr
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\*The following courses may be taken out of program sequence by (non-high school students) to qualify for full-time financial aid if applicable with program directors permission.

**PS 100** may be taken first year fall semester

**PA 250** may be taken first year spring semester

Note: Certification in Cardiopulmonary Resuscitation is required for graduation. A CPR certification course will be offered by the college on an alternating summer basis for radiologic technology: radiation therapy program students. All coursework, including clinical courses, must be completed satisfactorily to qualify for program graduation. This is a recommended sequence. Student should consult his/her academic adviser prior to registering. MT 125 or equivalent is a prerequisite.

## CONTACT

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