

# RADIATION THERAPY TECHNOLOGY (B.S.)

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<http://cphs.wayne.edu/rtt> (<http://cphs.wayne.edu/rtt/>)

Radiation therapy technology is a health care discipline which utilizes ionizing radiation for the treatment of malignant diseases. This field requires a basic understanding of and interest in science, especially mathematics and physics, as well as emotional maturity and a desire to assist in the management of patient care. A radiation therapist has the unique opportunity to blend knowledge and skills of mathematics, medical science, and psychology in his or her everyday work. The therapist comes to know patients over a period of several months and becomes an important presence in their health care, a continued contact that is the source of much satisfaction and professional pride. The Bachelor of Science Degree program in Radiation Therapy Technology at Wayne State University is designed to prepare students for the technical, theoretical and psychological aspects of this career.

Radiation therapists are typically employed in hospitals, clinics, educational institutions, and commercial equipment corporations as staff therapists, clinical supervisors, administrators, educators, and technical marketing personnel. A radiation therapist is able to:

- operate sophisticated radiation equipment to deliver a planned course of radiation therapy;
- assist the physicist in quality assurance and in treatment planning procedures, and in the calibration of equipment;
- observe the clinical progress of the patient undergoing radiation therapy, and recognize when a patient's condition requires the attention of a physician; and
- assist in providing psychosocial support for patients who are dealing with the stress of their illness.

The Bachelor of Science in Radiation Therapy Technology is a four-year degree program consisting of two years of pre-professional courses and two years of professional courses. The program is accredited by the:

Joint Review Committee on Education in Radiologic Technology (<http://www.jrcert.org/>)

20 N. Wacker Drive, Suite 2850

Chicago IL 60606-3182

312-704-5300.

The program complies with the professional curriculum of the American Society of Radiologic Technologists. Upon completion of the program, the student receives a Bachelor of Science Degree in Radiation Therapy Technology and is eligible to take the national certification examination administered by the American Registry of Radiologic Technologists.

## Admission to Pre-professional Program

The first two years (pre-professional program) are taken in the College of Liberal Arts and Sciences as a Pre-Radiation Therapy major, the admission requirements of which are satisfied by general admission (<https://bulletins.wayne.edu/undergraduate/general-information/admission/>) to the University. Students should consult with the University Advising Center, 1600 Adamany Library, regarding course selection. Students are urged to attend a College Information Night to learn about the professional program and application process: Information Meeting (<https://slate.wayne.edu/portal/eacphs/>).

**Recommended High School Preparation:** Students interested in a career in radiation therapy technology should take as many of the following high school courses as possible: biology, chemistry, mathematics, physics, computer science, keyboarding, speech, and composition.

## Admission to Professional Program

Admission to the professional program requires completion of the above pre-professional course requirements and satisfaction of specific admission requirements listed below. The application deadline is November 30 for matriculation into the professional program for the subsequent spring/summer term.

Students should work with an advisor in the University Advising Center (313-577-2680) to stay current with pre-professional coursework and program admission requirements. The program faculty provides career advisement at the Eugene Applebaum College of Pharmacy and Health Sciences' Monthly College Information Meeting held on the first Tuesday of each month. Attendance of at least one monthly meeting is a mandatory application requirement prior to the beginning of the application process.

Since applicants who are admitted will eventually be working as a member of a health care team, the admissions committee evaluates candidates based on their personal qualities as well as their academic achievement. Therefore, throughout the interview and the completion of other application requirements, such criteria as a student's maturity, motivation, knowledge of the profession, interpersonal skills, personal integrity, and empathy for others is evaluated.

## Professional Program Admission Requirements

The student applying to the professional program must meet the following admission requirements:

1. Completion of all pre-professional courses (or their equivalents) by the end of the winter term for spring semester program start.
2. Hold a minimum 2.5 cumulative GPA and a minimum 2.7 math and science prerequisite GPA.
3. Completion of a RTT Program Application (<https://slate.wayne.edu/register/?id=d373900e-8fe5-4447-a96e-5b3657b7f031>) and submission of all required documentation.
4. Submission of official transcripts from all college institutions attended (other than Wayne State).
5. Attendance at a Monthly College Information Meeting (<http://cphs.wayne.edu/admissions/before-you-apply.php>) at the Eugene Applebaum College of Pharmacy and Health Sciences, held the first Tuesday of each month at 6:00pm. Out-of-state applicants should contact a Radiation Therapy Technology faculty member for options to accommodate individual circumstances.
6. Two clinical visits to affiliate institutions. If clinical sites are unavailable, alternative arrangements can be made. Call 313-577-5711 to schedule a visit. Out-of-state applicants should contact a Radiation Therapy Technology faculty member for options to accommodate individual circumstances.
7. Submission of two references via the application portal from an employer/supervisor and a college professor/advisor, preferably one from each.
8. Completion of at least 57 credit hours before starting the professional program requirements.
9. Satisfaction of the University General Education requirements.

**Application Deadline:** The application and deadline for submission of required materials is November 30. Prospective students are urged to

submit applications as early as possible when the application opens in mid-summer.

**Application Review:** All applications will be reviewed for completeness and the Admissions Committee will review all qualified applicants submitted by the deadline. The Admissions Committee will notify applicants of their interview status. Interviews are typically conducted in February of each year. A number of criteria will be evaluated, including academic achievement and personal qualities. The Radiation Therapy Technology Program typically notifies each applicant of a final admission decision in March.

## Pre-professional Program

Each of the following required pre-professional courses (or its equivalent) must be completed with a minimum grade of C (2.00 GPA, where A = 4.0).

### First and Second Years

Code	Title	Credits
BIO 1500 & BIO 1501	Basic Life Diversity and Basic Life Diversity Laboratory	4
BIO 1510 & BIO 1511	Basic Life Mechanisms and Basic Life Mechanisms Laboratory	4
BIO 2870	Anatomy and Physiology	5
CHM 1020	Survey of General Chemistry (and lab)	4
COM 1010	Oral Communication: Basic Speech	3
ENG 1020	Introductory College Writing	3
ENG 3010	Intermediate Writing	3
MAT 1800	Elementary Functions	4
PHI 1050	Critical Thinking	3
PHY 2130	Physics for the Life Sciences I	4
PHY 2131	Physics for the Life Sciences Laboratory	1
PHY 2140	Physics for the Life Sciences II	4
PHY 2141	Physics for the Life Sciences Laboratory	1
PS 1010	American Government	4
PSY 1010	Introductory Psychology	4
PSY 2300 or PSY 2400 or PSY 2410	Psychology of Everyday Living Developmental Psychology Health Psychology	4

University Requirements (see General Education Program Requirements) (<http://bulletins.wayne.edu/undergraduate/general-information/general-education/>)

## Professional Program

### Degree Requirements

Candidates for the degree Bachelor of Science in Radiation Therapy Technology must complete a minimum of 120 credits, including professional coursework, the University General Education Requirements (<https://bulletins.wayne.edu/undergraduate/general-information/general-education/>), and any needed elective credit. The total course work will be distributed between two years of pre-professional courses and the two-year professional program as outlined below. Courses in the professional program are taken in the Eugene Applebaum College of Pharmacy and Health Sciences. Enrollment requires full-time student status for six consecutive terms (twenty-four months), during which time students take didactic and clinical courses. The clinical program includes approximately twenty hours per week of clinical education at multiple affiliate institutions in the greater metropolitan Detroit area. Such institutions include urban and suburban hospitals.

While most required courses are scheduled during usual daytime hours, students are required to attend some courses or individual class sessions in early evening.

Third Year		Credits
RT 3000	Concepts of Clinical Care	3
RT 3010	Introductory Radiation Physics	3
RT 3020	Clinical Radiation Physics	3
RT 3110	Clinical Aspects of Radiation Therapy	3
RT 3140	Topographic Anatomy and Medical Imaging	3
RT 3200	Therapeutic Interactions in Oncology Care	2
RT 3310	Clinical Practicum I	4
RT 3320	Clinical Practicum II	4
RT 3330	Clinical Practicum III	4
RT 5650	Pathophysiology for Health Sciences	3
<b>Credits</b>		<b>32</b>
Fourth Year		
RT 4110	Clinical Radiation Oncology	4
RT 4120	Basic Clinical Dosimetry	4
RT 4140	Oncologic Pathology	2
RT 4150	Radiobiology of Radiation Oncology	2
RT 4220	Radionuclide Physics	3
RT 4240	Radiation Therapy Technology Seminar	3
RT 4300	Quality Assurance	2
RT 4350	Clinical Practicum IV	4
RT 4360	Clinical Practicum V	4
RT 4370	Clinical Practicum VI	4
RT 5990	Directed Study in Radiation Therapy Technology (Max 5)	1-5
<b>Credits</b>		<b>33-37</b>
<b>Total Credits</b>		<b>65-69</b>

### Scholarship

Students in the professional program are subject to high academic and professional standards. A grade of 'C' (2.00) or above is required in each professional course, and the student must maintain a term grade point average of 2.70 throughout the program. A grade of 'C-minus' (1.67) in a professional course indicates unsatisfactory performance; repetition of the course is required, and review by the Academic Committee will occur. A second grade of 'C-minus' or below, or a single grade of 'D' or less (1.00 or less) will result in immediate dismissal from the professional program. Academic standards and program probation policies are subject to change. Academic standards and policies are published annually; copies are available upon request from the Radiation Therapy Technology Program.

### Liability Insurance

Each student is required to have professional liability insurance during the entire length of the professional program. Neither the clinical affiliates, nor Wayne State University, assume liability for student actions during clinical education.

## Radiation Therapy Technology Honors

The Radiation Therapy Technology Honors Program is an opportunity for students to learn more about areas in radiation therapy that peaks the student's interest. This provides students with a great opportunity to go beyond the classroom and explore more ways to enhance their academic experience and patient care skills.

### Requirements

Code	Title	Credits
Graduate with a minimum cumulative university GPA of 3.5		
	Complete an Honors Seminar course (HON 42XX)	3

#### Honors 1 - Third Year

RT 3200	Therapeutic Interactions in Oncology Care	2
Must have a minimum 3.3 cumulative GPA from Wayne State University to begin Honors 1.		
<b>Honors 2 - Fourth Year</b>		
RT 4240 & RT 4110	Radiation Therapy Technology Seminar and Clinical Radiation Oncology	7
Must have a 3.3 cumulative GPA from Wayne State University and a 3.4 GPA in Radiation Therapy courses to start Honors 2.		
<b>Honors 3 - Fourth Year</b>		
RT 4370	Clinical Practicum VI	4
Must have a minimum cumulative GPA of 3.3 from Wayne State University and a 3.5 GPA in RT courses to begin Honors 3.		
<b>Total Credits</b>		<b>16</b>