

RADIATION THERAPY TECHNOLOGY, BS

About Allied Health Majors

Allied Health professionals are highly skilled and sought after members of the health care team. Distinct from nursing, medicine and pharmacy, the allied health professions provide a range of diagnostic, technical, therapeutic, and direct patient care and support services that are critical to other health professionals they work with and the patients they serve. Roosevelt University offers five programs with clinical training at Northwestern Memorial Hospital, Chicago (Diagnostic Medical Sonography, Histotechnology, Nuclear Medicine Technology, Radiation Therapy Technology, and Radiography (<https://clinicalschoools.nm.org/>)) and one program with clinical training at NorthShore Health Systems, Evanston (Medical Technology (<https://www.northshore.org/academics/academic-programs/other-programs/medical-technology/>)).

These Bachelor of Science degrees involve completing required pre-requisite course work at Roosevelt University, followed by clinical training at the appropriate affiliate site (either Northwestern Hospital or NorthShore Health Systems, see above).

Admission to the clinical portion of the program is at the discretion of the affiliate site. A separate application to the clinical portion of the program is required, and acceptance is not guaranteed.

- Each of the six areas of study has its own prerequisite courses and GPA requirements and students are responsible for being fully aware of each affiliate's specific acceptance requirements for clinical study. Programs require that all pre-requisite courses are completed before applying to the clinical affiliate.
- Students in clinical training are registered through Roosevelt University and pay Roosevelt University tuition.
- Students interested in these allied health careers should seek early guidance from an advisor in the Department of Biological, Physical, and Health Sciences.

About Radiation Therapy Technology

The Radiation Therapist Technology program at Roosevelt University is a highly specialized program that prepares students to work with patients undergoing radiation treatment. Radiation therapy is one of the most effective treatments today for many cancers and an increasing number of other medical conditions. Under the supervision of radiation oncologists, radiation therapists use high-energy X-rays, electron beams, or radioactive isotopes to kill cancer cells. Radiation therapists must interact compassionately and effectively with people who range from healthy to terminally ill.

They can work in various settings including: hospitals, clinics, and companies within the industry. Although many consider radiation therapy to be fulfilling, lifelong career, advanced career opportunities exist in fields including medical dosimetry, education, management and administration, industry, and research. Students interested in allied health careers should seek early guidance from an advisor in the Department of Biological, Chemical, and Physical Sciences.

This is a **3 + 1 year program** in which the first three years of course work is completed at Roosevelt University with the final year completed at the clinical affiliate site, Northwestern Memorial (NM) Hospital Chicago. The clinical portion is 14-month program (58 weeks) and provides students

with a comprehensive body of knowledge and a clinical instruction that enables students to build clinical competency and master the knowledge and skills required for clinical practice.

Upon successful completion of program requirements, students are awarded a certificate of completion in Radiation Therapy from Northwestern Medicine and are eligible to take the national certification examination in Radiation Therapy administered by the American Registry of Radiologic Technologists (ARRT) (<http://arrt.org/>). Students will also earn a BS in Radiation Therapy from Roosevelt University.

Standards

At Roosevelt University, a grade of C- is the minimal acceptable grade for a course to be applied to this major or to be accepted as a prerequisite for subsequent courses; however, **the minimum GPA for application to the Radiation Therapy clinical program is a 2.7 and a C grade in the following clinical prerequisite courses:**

- Human Anatomy & Physiology I with lab *
- Human Anatomy & Physiology II with lab *
- Precalculus or higher *
- General Physics I with lab *
- General Physics II with lab*
- Written Communication
- Verbal Communication

Courses marked with * must have been taken within seven years from the date of application.

A minimum cumulative GPA of 2.0 is required for graduation. Note that some majors have additional GPA requirements.

All applicants whose native language is not English must submit official TOEFL test scores (https://clinicalschoools.nm.org/uploads/1/1/2/0/112045435/nm_clinical_schools_toefl_policy_rev_9.21.21.pdf) by the application deadline to Northwestern Memorial Hospital. Clinical course enrollment is subject to the satisfactory completion of pre-clinical course work and admission to the clinical program. Please consult the Northwestern Medicine Clinical Schools website (<https://clinicalschoools.nm.org/>) for specific information in regards to application and admission.

Requirements

Radiation Therapy Technology students complete a minimum of 85 credit hours of academic work, including the College of Science, Health and Pharmacy general education requirements, in addition to the Radiation Therapy Technology core courses outlined below. They complete their last 35 credit hours in a one-year, full-time, daytime clinical training program at Northwestern Memorial Hospital*.

Standards

- AP biology credit with a score of 3.0 or higher may apply toward the major in biology or the general education requirements after consultation with an advisor.
- AP chemistry with a score of 4 or higher satisfies the requirements for CHEM 201 GENERAL CHEMISTRY I with lab.
- AP Physics I or Physics C: Mechanics with a score of 3.0 satisfies the requirement for PHYS 201 INTRODUCTION TO NON-CALCULUS BASED PHYSICS I with lab.

- AP Physics II or Physics C: Electricity and Magnetism with a score of 3.0 satisfies the requirement for PHYS 202 INTRO TO NON-CALCULUS PHYSICS II with lab.

In addition, students must:

- Students must take a minimum of their last 30 credit hours at Roosevelt University or complete a minimum of 60 hours in-residence at Roosevelt University excluding the number hours in the exception request; off-site clinical courses count toward this requirement.
- Take at least 20 credit hours in acceptable Biology, Chemistry, or Physics courses at Roosevelt University; minimum 15 credit hours of Biology courses must be completed at Roosevelt University.
- Transfer students need to complete a minimum of 2 semesters of full-time studies at Roosevelt University to be eligible for affiliate benefits.
- Once enrolled in the program, complete all remaining Biology, Chemistry, Physics, and Mathematics course requirements for this BS degree at Roosevelt University. Under special circumstances, written permission to take required courses elsewhere may be granted by the program director.
- Apply only courses in biology taken within the past eight years toward graduation.
- Limit to 4 credit hours the total of independent study hours (BIOL 395 INDEPENDENT STUDY/BCHM 395 INDEPENDENT STUDY/CHEM 395 INDEPENDENT STUDY) and independent research (BIOL 392 RESEARCH IN BIOLOGY/BCHM 392 RESEARCH IN BIOCHEMISTRY/CHEM 392 RESEARCH IN CHEMISTRY) used to fulfill the requirements of the major.

* Acceptance into the clinical training is not guaranteed and is at the discretion of the clinical site

Code	Title	Credit Hours
Core		
BIOL 118	CAREERS IN HEALTH SCIENCES	1
BIOL 123	ANATOMY & PHYSIOLOGY I	4
BIOL 124	ANATOMY & PHYSIOLOGY II	4
BIOL 202	ECOLOGY, EVOLUTION, AND GENETICS	5
BIOL 301	CELLULAR & MOLECULAR BIOLOGY	5
CHEM 201	GENERAL CHEMISTRY I	5
CHEM 202	GENERAL CHEMISTRY II	5
CHEM 210	SURVEY OF ORGANIC CHEMISTRY	5
MATH 121	COLLEGE ALGEBRA	3
MATH 122	TRIGONOMETRY AND PRECALCULUS	3
MATH 217	ELEMENTARY STATISTICS	3
PHYS 201	PHYSICS I	5
PHYS 202	PHYSICS II	5
COMM 101	PUBLIC SPEAKING	3
Clinical Courses for Radiation Therapy Technology		
ALH 313	PATIENT CARE MANAGEMENT I	2
ALH 316	PATHOLOGY	2
ALH 317	RADIATION PHYSICS I	2
ALH 318	RADIATION PHYSICS II	3
ALH 341	RADIATION BIOLOGY	1
ALH 352	RADIATION SAFETY & PROTECTION	2

ALH 353	MEDICAL IMAGING FOR RADIATION THERAPY	2
ALH 354	PRINCIPLES AND PRACTICE I	3
ALH 355	PRINCIPLES & PRACTICE II	3
ALH 357	CLINICAL PRACTICUM I	3
ALH 358	CLINICAL PRACTICUM II	4
ALH 360	QUALITY MANAGEMENT & HEALTHCARE OPERATIONS	2
ALH 361	ADVANCED IMAGING IN RADIATION THERAPY	1
ALH 362	OPERATIONAL ISSUES	1
ALH 363	TECHNICAL RADIATION I	2
ALH 364	TECHNICAL RADIATION THERAPY II	2
General Education, University Writing Requirement, and Electives		24
Core Requirements		62
Clinical Requirements		35
Total credits for degree		121

CORE Requirements (General Education)

Code	Title	Credit Hours
First Year Success Course or Transfer Success Course		
FYS 101 or TRS 101	FIRST YEAR SUCCESS COURSE TRANSFER SUCCESS 101	1
Communication Requirement		
ENG 101	COMPOSITION I: CRITICAL READING & WRITING	3
ENG 102	COMPOSITION II: INTRODUCTION TO ACADEMIC RESEARCH	3
COMM 101	PUBLIC SPEAKING (or program specific CORE communications course)	3
Ideas of Social Justice		
3 credits in coursework categorized as Ideas.		3
Humanities and Fine and Performing Arts ^{2, 3}		
9 credits from the following subject areas: African-American Studies, Art History, English (excluding ENG 101 and ENG 102), History, Languages, Music, Philosophy, Theatre, Communication and Women's and Gender Studies		9
Mathematics		
MATH 110	QUANTITATIVE LITERACY (or above) ¹	3
Science		
One biological science and one physical science required (one must include a one credit lab).		7-8
Social Sciences ^{2, 3, 4}		
9 credits from the following subject areas: African-American Studies, Criminal Justice, Economics, History, Journalism, Philosophy, Political Science, Psychology, Sociology and Women's and Gender Studies		9
Experiential Learning		
6 credits from coursework categorized as Experiential Learning.		6
Total Credit Hours		47-48

¹ Higher level of Math may be required by major

² Coursework must come from outside of students' major discipline

³ A maximum of 9 credits can be applied from a single discipline towards humanities and social science requirements

⁴ Digital Advertising and Public Relations Majors must complete COMM 110 with a grade of C or higher. This course can fulfill one Social Science requirement.

These quantitative requirements also apply to degrees.

- Students must earn a minimum of 120 semester hours.
- Students may apply no more than 60 credit hours of 100-level courses toward the degree.
- Students must apply no fewer than 60 credit hours of 200- and 300-level courses toward the degree.
- Students must have at least 18 credit hours (of the 60 credit hours above) at the 300 level.
- Students may transfer in no more than 70 credit hours from community colleges.
- Students earning less than 60 total hours in residence must take their final 30 hours at Roosevelt University. Note that some majors have additional requirements for RU hours.
- Students must have a grade point average of 2.0 or higher to graduate. Note that some majors have additional GPA requirements.
- Students may apply no more than 51 hours in the major (BA) or 57 hours in the major (BS)

Your degree map is a general guide suggesting courses to complete each term on the academic pathway to your degree. It is based on the most current scheduling information from your academic program. Your program's degree map is reviewed annually and updated as schedules change (although you retain the same course requirements as long as you are continuously enrolled in your degree program).

Always work closely with your academic advisor to understand curriculum requirements and scheduling, as each student's academic plan can look slightly different.

Year 1

Fall	Credit Hours	Spring	Credit Hours
FYS 101	1	ENG 102	3
ENG 101	3	MATH 122	3
BIOL 118**	1	CHEM 202	5
MATH 121	3	Ideas of Social Justice	3
CHEM 201	5		
Social Science #1	3		
	16		14

Year 2

Fall	Credit Hours	Spring	Credit Hours
BIOL 123	4	BIOL 124	4
MATH 217	3	Humanities #1	3
CHEM 210 or 211	5	Social Science #2	3
COMM 101	3	General Elective	3
	15		13

Year 3

Fall	Credit Hours	Spring	Credit Hours
BIOL 202	5	PHYS 202	5

PHYS 201	5	BIOL 301 (Experiential Learning #1) ¹	5
Social Science #3	3	Humanities #2	3
General Elective	3	Humanities #3	3
	16		16

Year 4

Fall	Credit Hours	Spring	Credit Hours
ALH 313	2	ALH 318	3
ALH 316	2	ALH 341	1
ALH 317	2	ALH 355	3
ALH 352	1	ALH 358 (Experiential Learning #2) ¹	4
ALH 353	2	ALH 360	2
ALH 354	3	ALH 361	1
ALH 357	3	ALH 362	1
ALH 363	3	ALH 364	3
	18		18

Total Credit Hours 126

¹ Experiential Learning class must be 200/300 level. Satisfies CORE Experiential Learning requirement. EXL courses can satisfy major requirements/electives or CORE requirement

* Must be accepted to clinical school for clinical training courses. Not guaranteed.

** Complete within the 1st semester of joining the program.