RADIATION THERAPY TECHNOLOGY, BS

Health care professions separate from nursing, medicine, and pharmacy 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.

The overall employment outlook for individuals with professional certifications varies, but is projected to be good to excellent by the U.S. Bureau of Labor Statistics. The BS degrees include Diagnostic Medical Sonography, Histotechnology, Medical Technology, Nuclear Medicine Technology, Radiation Therapy Technology, and Radiography. These areas involve completing required course work at Roosevelt University, followed by clinical training at the appropriate affiliate clinical site. A separate application to the clinical training program is required, and acceptance is not guaranteed. 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) and one program with clinical training at NorthShore Health Systems, Evanston (Medical Technology).

Requirements

Courses taken for the major must be taken on a letter grade basis. A grade of C- is the minimal acceptable grade for a course to be applied to the major, or to be acceptable as a prerequisite for subsequent courses. A minimum cumulative GPA of 2.0 is required for all courses in the major. However, it is important to note that the clinical affiliates have their own GPA requirements and may not accept grades of C- for certain required prerequisite courses.

Each of the areas of study has its own prerequisite courses and requirements. These programs require students to complete all required course work before applying to the clinical affiliate. Students are not guaranteed admission into the clinical training portion of the degree. Students must make certain they are fully aware of each area's specific acceptance requirements. Students interested in these health care careers should seek early guidance from the health coordinator in the Department of Biological, Chemical and Physical Sciences.

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 (2014 or later) with a score of 3.0 satisfies the requirement for PHYS 201 INTRODUCTION TO NON-CALCULUS BASED PHYSICS I with lab.
- AP Physics II (2014 or later) with a score of 3.0 satisfies the requirement for PHYS 202 INTRO TO NON-CALCULUS PHYSICS II with lab.
- AP Physics C: Mechanics with a score of 3.0 satisfies the requirement for PHYS 201 INTRODUCTION TO NON-CALCULUS BASED PHYSICS I with lab and PHYS 233 CALCULUS-BASED PHYSICS I DISCUSSION.
- AP 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 and PHYS 234 CALCULUS-BASED PHYSICS II DISCUSSION.

In addition, students must:

- Take a minimum of their last 30 credit hours at Roosevelt University; off-site clinical courses count toward this requirement.
- Take at least 20 credit hours in acceptable Biology, Chemistry, or Physics courses at Roosevelt University; not more than 15 credit hours of acceptable Biology courses may be transferred to Roosevelt University and applied toward the BS degrees.
- Once enrolled in the program, complete all remaining Biology, Chemistry, Physics, and Mathematics course requirements for these BS degrees at Roosevelt University. Under special circumstances, written permission to take required courses elsewhere may be granted by the health coordinator.
- 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/PHYS 395 INDEPENDENT STUDY) and independent research (BIOL 392 RESEARCH IN BIOLOGY/BCHM 392 RESEARCH IN BIOCHEMISTRY/CHEM 392 RESEARCH IN CHEMISTRY/PHYS 392 RESEARCH IN PHYSICS) used to fulfill the requirements of the major.

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 be able to interact compassionately and effectively with people who range from healthy to terminally ill.

Contact an advisor in the Department of Biological, Chemical, and Physical Sciences for details and advising as soon as possible. This is a 3+1 program, in which the first three years of course work is completed at Roosevelt University and the final year at Northwestern Memorial Hospital.

Admission

Admission to clinical training is at the discretion of the clinical affiliate, Northwestern Memorial Hospital. Students are not guaranteed admission. The minimum GPA for application for this program is a 2.5 GPA overall and a 2.5 GPA in the prerequisite courses. Students in clinical training are registered through Roosevelt University and pay Roosevelt University tuition. There is no additional tuition charge for the clinical portion of the program.

Requirements

Radiation Therapy Technology students complete a minimum of 85 credit hours of academic work, including the University Writing Requirement and the College of Arts and Sciences general education requirements, in addition to the Radiation Therapy Technology requirements outlined below. Students must take their final 30 credit hours before clinical training at Roosevelt University. They complete their last 35 credit hours in a one-year, full-time, daytime clinical training program at Northwestern Memorial Hospital*. Upon successful completion of the clinical program,

students receive a Certificate in Radiation Therapy Technology from the hospital and a BS in Radiation Therapy Technology from Roosevelt University and are eligible to sit for the American Society of Radiologic Technologists certification examination.

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

Code	Title	Credit Hours
Core		
BIOL 123	ANATOMY & PHYSIOLOGY I (with lab)	4
BIOL 124	ANATOMY & PHYSIOLOGY II (with lab)	4
BIOL 202	ECOLOGY, EVOLUTION, AND GENETICS (with lab)	5
BIOL 301	CELLULAR & MOLECULAR BIOLOGY (with lab)	5
CHEM 201	GENERAL CHEMISTRY I (with lab)	5
CHEM 202	GENERAL CHEMISTRY II (with lab)	5
CHEM 211	ORGANIC CHEMISTRY I (with lab)	5
or CHEM 210	SURVEY OF ORGANIC CHEMISTRY	
MATH 121	COLLEGE ALGEBRA	3
MATH 122	TRIGONOMETRY AND PRECALCULUS	3
MATH 217	ELEMENTARY STATISTICS	3
PHYS 201	INTRODUCTION TO NON-CALCULUS BASED PHYSICS I (with lab)	4
PHYS 202	INTRO TO NON-CALCULUS PHYSICS II (with lab)	4
PSYC 285	RESEARCH METHODS	3
SPCH 101	PUBLIC SPEAKING	3
CST 100	ESSENTIAL COMPUTER SKILLS	3
or CST 101	BEYOND PC ESSENTIALS	
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	2
ALH 352	RADIATION SAFETY & PROTECTION	2
ALH 353	MEDICAL IMAGINING FOR RADIATION THERAPY	2
ALH 354	PRINCIPLES AND PRACTICE I	3
ALH 355	PRINCIPLES & PRACTICE II	2
ALH 357	CLINICAL PRACTICUM I	3
ALH 358	CLINICAL PRACTICUM II	4
ALH 360	QUALITY MANAGEMENT	2
ALH 362	OPERATIONAL ISSUES	2
ALH 363	TECHNICAL RADIATION I	2
ALH 364	TECHNICAL RADIATION THERAPY II	2
General Education, University Writing Requirement, and Electives		32
Core Requirements		53
Clinical Requirements		35
Total credits for degree		120

CORE Requirements (General Education)

Code	Title	Credit Hours
First Year Success Course or Transfer Success Course		
FYS 101	FIRST YEAR SUCCESS COURSE	1
or TRS 101	TRANSFER SUCCESS 101	
Communication Requirement		
ENG 101	COMPOSITION I: CRITICAL READING & WRITING	3
ENG 102	COMPOSITION II: INTRODUCTION TO ACADEMIC RESEARCH	3
LIBS 201	WRITING SOCIAL JUSTICE (Transfer students with acceptable communication credit may be exempt from this requirement.)	3
Ideas Across Disciplines		
3 credits in coursework categorized as Ideas.		3
Humanities and Fine and Performing Arts		
9 credits from the following subject areas: African-American Studies, Art History, English (excluding ENG 101 and ENG 102), History, Languages, Music, Philosophy, Theatre, Speech and Women's and Gender Studies		9
Mathematics		
MATH 110	QUANTITATIVE LITERACY (or above)	3
Science		
One biological science and one physical science required (at least one must be a four-hour lab). (Not applicable for science majors)		7-8
Social Sciences		
9 credits from the following subject areas: African-American Studies, Anthropology, 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.		
Total Credit Hours		41-42

These quantitative requirements also apply to degrees in the College of Arts and Sciences:

- 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 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)

Year 1

Fall	Credit Hours	Spring	Credit Hours
FYS 101	1	ENG 102	3
ENG 101	3	CHEM 202	5
MATH 121	3	MATH 122	3
CHEM 201	5	Ideas Across Disci	3
PSYC 103 (Social Science #1)	3		
	15		14

Year 2

Fall	Credit Hours	Spring	Credit Hours
LIBS 201	3	BIOL 124	4
CHEM 211 or 210	5	SPCH 101 (Humanities #1)	3
BIOL 123	4	CST 100 or 101	3
MATH 217	3	PSYC 285 (Social Science #2)	3
		General Elective[1]	3
	15		16

Year 3

Fall	Credit Hours	Spring	Credit Hours
BIOL 202	5	PHYS 202*	4
PHYS 201	4	BIOL 301	5
Social Science #3	3	Humanities #2	3
Experiential Learning #1[2]	3	Humanities #3	3
	15		15

Year 4

Fall	Credit Hours	Spring	Credit Hours
ALH 313	2	ALH 318	3
ALH 316	2	ALH 341	1
ALH 317	2	ALH 358	4
ALH 352	2	ALH 362	2
ALH 353	2	ALH 363	2
ALH 354	3	ALH 364	2
ALH 357 (Experiential Learning #2)	3		
ALH 360	2		
	18		14

Total Credit Hours 122

1 Or course towards a Minor

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

* Clinical applications due Feb 1st.

** Must be accepted into clinical training portion/not guaranteed.