

RADIATION THERAPY

Associate of Science Degree

Quincy College | Academic Division of Allied Health

Program Description

The program prepares students for entry-level practice as radiation therapists and eligibility to pursue national certification through the American Registry of Radiologic Technologists (ARRT). The curriculum integrates classroom, online, and hybrid instruction with progressive, competency-based clinical education to develop the knowledge, technical skills, critical-thinking abilities, communication skills, and professional behaviors required for safe and effective radiation therapy practice.

Students receive instruction in patient care, imaging, radiation physics and radiation protection, radiobiology, radiation oncology, treatment planning, quality assurance, and radiation therapy treatment techniques. Through supervised clinical education, students progressively apply knowledge and develop competency in simulation, patient positioning and immobilization, imaging and treatment verification, treatment delivery, radiation safety, patient care, and professional practice. Graduates are prepared to demonstrate entry-level clinical competence and provide safe, compassionate, patient-centered care as members of the interdisciplinary radiation oncology team.

Program Outcomes

Upon successful completion of this program, students will be able to:

- Perform radiation therapy treatment and simulation procedures safely and accurately in accordance with prescribed treatment plans and professional standards.
- Demonstrate clinical competence in patient care, positioning, immobilization, imaging, treatment verification, and radiation therapy treatment delivery.
- Communicate effectively and professionally with patients, families, and members of the interdisciplinary healthcare team.
- Demonstrate effective written, electronic, and verbal communication using appropriate medical and radiation oncology terminology and documentation practices.
- Apply critical-thinking and problem-solving skills to patient care, simulation, imaging, treatment planning, treatment delivery, and clinical practice.
- Analyze treatment planning, imaging, treatment verification, and quality assurance information to determine appropriate actions and support safe and accurate radiation therapy practice.
- Provide compassionate, patient-centered care that addresses patients' physical and psychosocial needs while applying radiation protection and safety principles.
- Demonstrate ethical, legal, accountable, and professional behavior consistent with patient-centered care and the standards of radiation therapy practice.

ADDITIONAL INFORMATION

(*) Indicates course requires the completion of a prerequisite.

For more information go to

Course / Credit Information

Prerequisite Requirements – 13 credits total	Credits
MAT 103 College Algebra	3 credits
BIO 131 Anatomy and Physiology I *w/lab	4 credits
Health Science First Year Seminar	3 credits

General education Requirements 16 credits	Credits
BIO 132 Anatomy and Physiology II *	4 credits
ENG 101 English Composition I	3 credits
ENG 102 English Composition II *	3 credits
History/Government	3 credits
PSY 101 General Psychology	3 credits

Program Requirements 44 credits	Credits
RTT 100 Orientation to Radiation Therapy Practice & Medical Terminology	2 credits
RTT 120 Imaging Principles in Radiation Therapy & Basic Radiation Physics	2 credits
RTT 125 Sectional Anatomy for Radiation Therapy	1 credit
RTT 114 Clinical Education I	2.5 credits
RTT 135 Radiation Therapy Treatment Techniques	3 credits
RTT 130 Patient Care for Radiation Oncology	2.5 credits
RTT 140 Radiation Therapy Quality Assurance, Safety & Radiation Protection	3 credits
RTT 124 Clinical Education II	2.5 credits
RTT 205 Clinical Practicum I	6 credits
RTT 210 Radiobiology & Pathology	3 credits
RTT 220 Radiation Physics I	3 credits
RTT 214 Clinical Education III	2.5 credit
RTT 230 Radiation Oncology	3 credits
RTT 240 Radiation Therapy Treatment Planning & Advanced Treatment Techniques	3 credits
RTT 250 Radiation Therapy Seminar & Capstone	1 credit
RTT 224 Clinical Education IV	2.5 credits
RTT 225 Advanced Clinical Practicum	2.5 credits

Total credits required for graduation 70 credits

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COURSE FLOW

Semester 1	Credits	Pre-Requisites
BIO 132 Anatomy and Physiology II w/lab	4 Credits	BIO 131
RTT 100 Orientation to Radiation Therapy Practice & Medical Terminology	2 Credit	
RTT 120 Imaging Principles in Radiation Therapy & Basic Radiation Physics	2 Credits	
RTT 125 Sectional Anatomy for Radiation Therapy	1 Credits	
RTT 114 Clinical Education I	2.5 Credits	
Total	11.5 credits	

Semester 2	Credits	Pre-Requisites
ENG 101 English Composition I	3 credits	
RTT 135 Radiation Therapy Treatment Techniques	3 credits	
RTT 130 Patient Care for Radiation Oncology	2.5 credits	
RTT 140 Radiation Therapy Quality Assurance, Safety & Radiation Protection	3 credits	
RTT 124 Clinical Education II	2.5 credits	
Total	14 credits	

Semester 3	Credits	Pre-Requisites
ENG 102 English Composition II*	3 Credits	ENG 101
RTT 205 Clinical Practicum I	6 Credits	
Total	9 credits	

Semester 4	Credits	Pre-Requisites
PSY 101 General Psychology	3 credits	
RTT 210 Radiobiology & Pathology	3 credits	
RTT 220 Radiation Physics I	3 credits	
RTT 214 Clinical Education III	2.5 credits	
Total	11.5 credits	

Semester 5	Credits	Pre-Requisites
History/Government	3 Credits	
RTT 230 Radiation Oncology	3 Credits	
RTT 240 Radiation Therapy Treatment Planning & Advanced Treatment Techniques	3 Credits	
RTT 250 Radiation Therapy Seminar & Capstone	1 Credits	
RTT 224 Clinical Education IV	2.5 Credits	
Total	12.5 credits	

Semester 6	Credits	Pre-Requisites
RTT 225 Advanced Clinical Practicum	2.5 credits	
Total	2.5 credits	

Semester Path

Recommended course of study for a full-time student. It is recommended that students speak to an Academic Advisor before registering for courses each semester.

Student Resources

Academic Advising
617-984-1720

Dean's Office of Liberal Arts & Professional Programs
617-405-5920

Dean's Office of Allied Health & Natural Science
617-405-5960

Dean's Office of Nursing
617-405-5990

Financial Aid Office
617-984-1620

Registrar's Office
617-984-1650

Student Accessibility and Academic Support Services
617-405-5915