

Prerequisites

- ❑ Satisfactory completion of a PGY-1 level Internship year in the Department of Medicine at Hospital of University of Pennsylvania
- ❑ Passing score on USMLE Steps 1 and 2 or equivalent
- ❑ Resident must sit for the USMLE Step 3 exam during the PGY-1 year.
Note that results may not be available until after the PGY-2 year has begun.
Residents must receive a passing score on the USMLE Step 3 exam **before completion of their PGY-2 years, or they cannot advance to the PGY-3 level**
- ❑ Valid PA State training license
- ❑ Fulfillment of all general criteria set forth for housestaff at University of Pennsylvania facilities
- ❑ Current ECFMG certificate (applies to Foreign Medical Graduates only)
- ❑ BLS Certification at a minimum, but ideally ACLS Certification

Objectives for Satisfactory Completion of PGY-2 Year

Basic

- ❑ Knowledge of procedures and policies for residents in radiation oncology training at the University of Pennsylvania
- ❑ Attendance at key lecture series in clinical radiation oncology, radiation physics, radiobiology, tumor biology, and biostatistics (offered alternate years)
- ❑ Passing score on USMLE Step 3 or equivalent examination, in accordance with PA State requirements
- ❑ Satisfactory performance review by program director
- ❑ BLS Certification

Clinical

- ❑ Satisfactory completion and evaluations on all clinical rotations at UPHS
- ❑ Understanding of general and basic principles of Radiation Oncology
- ❑ Ability to present concise and astute summaries of service patients in clinic as well as during chart rounds or other departmental/multidisciplinary conferences
- ❑ Ability to identify basic relevant clinical data that are important in the evaluation and management of general oncology patients

- ❑ Completion of online patient log files demonstrating care¹ of approximately 150 cases/year with various oncologic diagnoses
- ❑ Acquisition of a basic understanding of quality assurance processes as they apply to radiation oncology

Academic

- ❑ Satisfactory development of presentation skills focused on general topics
 - Experience with use of PowerPoint or equivalent presentation media
 - Ability to organize and present introductory lectures
- ❑ Facility with use of biomedical informatics tools including MEDLINE, ProCLIPS (departmental clinical database), hospital wide information systems, and the biomedical library
 - Understanding of patient's rights and privacy issues as they relate to the specialty and to medicine as a whole
- ❑ Active self-learning with textbook reading, supplemented with classic literature and important new clinical trials.
- ❑ Acquisition of basic knowledge of clinical radiation physics and achievement of satisfactory scores on internal examinations
- ❑ Acquisition of basic knowledge of radiobiologic principles as they apply to clinical situations and achievement of satisfactory scores on internal examinations
- ❑ Presentation of resident seminar on research topic of interest (see specific guidelines for resident seminars)
- ❑ Demonstration of a beginning ability to critically read, evaluate, and review the medical literature.

Objectives for Satisfactory Completion of PGY-3 Year

Basic

- ❑ Attendance of key lecture series in clinical radiotherapy, physics, biostatistics (offered alternate years) and radiobiology with an increased role in participation and teaching
- ❑ Ability to deliver general presentations on basic clinical topics

¹ "Care" refers to consultation on patients who may or may not ultimately require simulation plus simulation and treatment of patients for whom you may not have performed initial consultation.

- ❑ Satisfactory performance review by program director
- ❑ BLS Certification

Clinical

- ❑ Ability to handle on-call emergency situations under faculty supervision
- ❑ Beginning ability to manage general clinical situations on an autonomous basis
- ❑ Mastery of basic clinical radiotherapy with a knowledge base that is commensurate with level of training
- ❑ Completion of online patient log files demonstrating care of approximately 150 cases/year focused on general and moderately complex oncologic entities
- ❑ Basic experience in clinical brachytherapy, with at least 5 – 10 observed cases
- ❑ Successful completion of rotations on more complex services than PGY-2 residents, as demonstrated by satisfactory evaluations by relevant faculty and support staff
- ❑ Assumption of greater responsibility on more general radiotherapy services, as supported by satisfactory evaluations by faculty as well as support staff
- ❑ Demonstration of an increased understanding of technical aspects of radiotherapy via full participation in the treatment planning processes, including set-up and portal film review, as well as satisfactory completion of a clinical dosimetry elective
- ❑ Satisfactory completion of one-month nuclear medicine/radiology elective
- ❑ Basic understanding of quality assurance processes as they apply to radiation oncology

Academic

- ❑ Demonstration of ability to self-learn by identifying and citing pertinent primary literature in common oncologic diseases.
- ❑ Demonstration of ability to critically evaluate and review medical literature.
- ❑ Presentation of resident seminar with satisfactory evaluations from resident and faculty attendees
- ❑ Initiation of research projects focusing mainly on one, or encompassing one or more, of the following: clinical radiation oncology, radiation physics, tumor biology/radiobiology
 - Quantity of research projects in accordance with departmental policy on resident research
 - Begin preliminary work under faculty supervision

Objectives for Satisfactory Completion of PGY-4 Year

Basic

- ❑ Attendance at lecture series, with a greatly increased role in teaching junior colleagues and an emphasis on the Socratic method
- ❑ Ability to give thorough presentations on general or focused oncologic topics
- ❑ Increased understanding of more complex treatment planning
- ❑ Greater responsibility in directing CT simulations
- ❑ Independent evaluation and critique of treatment plans and portal films
- ❑ Acquisition of more clinical brachytherapy and treatment planning experience
- ❑ Satisfactory performance review by program director
- ❑ BLS Certification

Clinical

- ❑ Ability to handle on-call emergency situations under faculty supervision in a more autonomous manner
- ❑ Ability to manage general clinical situations on an autonomous basis
- ❑ Participation in rotations with a variety of complexity, with an emphasis on problem solving and decision making
 - Residents at this level should be able to fully assess a patient situation, determine the appropriate course of treatment, and then develop and implement the treatment plan, with attending supervision as needed.
- ❑ Satisfactory performance as a senior resident, including rotations as the VA senior, pediatrics resident, gynecologic resident, and lymphoma resident
- ❑ Pursuit of elective courses and research, including other areas of oncology
- ❑ Completion of online patient log files demonstrating care of approximately 150 cases/year focused on moderately complex oncologic entities
- ❑ Accumulation of experience in brachytherapy, with at least 5 – 10 observed cases, and 5 – 10 cases performed
- ❑ Accumulation of clinical experience and technical facility with more complicated treatments including stereotactic radiotherapy, 3-D IMRT treatment planning, and brachytherapy
- ❑ Beginning ability to formulate valid critique of treatment and treatment plans for quality assurance purposes

Academic

- ❑ Self-learning that focuses on developing in-depth understanding of pertinent clinical, biological, and technical literature
- ❑ Ability to be conversant in important clinical literature and to understand the appropriate application of studies to treatment decision-making
- ❑ Completion of research project(s), with written and submitted abstracts and/or manuscripts for publication, with faculty supervision
- ❑ Submission of publication and presentation at national meeting

Objectives for Satisfactory Completion of PGY-5 Year

Basic

- ❑ Attendance at lecture series, acting as leader or moderator along with faculty, and taking an active teaching role with students and fellow residents
- ❑ Ability to give thorough presentations on general or specific aspects of radiobiology, physics, or clinical medicine at a level of quality that is appropriate for meetings or multidisciplinary audiences
- ❑ Satisfactory performance review by program director
- ❑ BLS Certification

Clinical

- ❑ Ability to handle on-call emergency situations under faculty supervision autonomously
- ❑ Ability to manage moderately complex clinical situations on an autonomous basis
- ❑ Successful completion of required clinical rotations while continuing to develop independent skills in clinical decision-making, treatment planning and technical aspects
- ❑ Demonstration of competency to act as a general practitioner in Radiation Oncology in either an academic or community setting
- ❑ Successful completion of electives in areas of interest or subspecialty training
- ❑ Completion of online patient log files demonstrating care of approximately 150 cases/year focused on more complex oncologic entities
- ❑ Satisfactory performance as a senior resident, including all services listed under the PGY-4 year, as well as Pennsylvania Hospital and a variety of satellite facilities (Chestnut Hill, Chester County, Capital Health at Mercy)

- ❑ Sufficient experience in the delivery of brachytherapy to assure that the resident can autonomously plan and perform such procedures (as per the ABR rules, which presently stipulate a total accumulated experience of no fewer than five interstitial implants performed in at least five patients and ten intracavitary implants performed in at least ten patients)
- ❑ Experience and facility with complex treatments including stereotactic radiotherapy, 3D treatment planning, and treatment planning for brachytherapy to assure that the resident can autonomously plan and perform these procedures
- ❑ Ability to formulate valid critique of treatment and treatment plans for quality assurance purposes

Academic

- ❑ Self-learning focusing on areas of interest or where experience may be lacking, with more in-depth reading on all aspects of academic oncology.
- ❑ Demonstrable ability to design, either in theoretical or actual form, clinical studies pertinent to the field.
 - Understanding of Institutional Review Board and Human Subjects protection-related issues
- ❑ Satisfactory completion of research project(s) (quantity of projects in accordance with departmental policy on resident research) sufficient to assure that the resident:
 - Has submitted abstracts and manuscripts to peer reviews journals²
 - Has presented research at national meetings³
 - Has a level of comfort with such research to assure that he/she can continue autonomously in the future.

² In some instances, it may be considered premature to expect that a research project will be at a point sufficient to warrant presentation or manuscript submission. These exceptions will be taken into account.

³ In some instances, it may be considered premature to expect that a research project will be at a point sufficient to warrant presentation or manuscript submission. These exceptions will be taken into account.