

Radiation Oncology

Chair

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Faculty: <https://medicine.uiowa.edu/radiationoncology/profile/?appointment=PRIMARY&category=&query=&page=1&size=10>

Website: <https://medicine.uiowa.edu/radiationoncology/>

Radiation oncology specializes in the delivery of radiation treatments for cancer patients. It includes treatments with linear accelerators as well as isotopes and temporary and permanent surgically implanted sources. Radiation oncologists also use these methods to treat some benign diseases, such as Graves' ophthalmopathy and trigeminal neuralgia. Treatments often employ stereotactic CT-image guided and MR-image guided techniques.

The Department of Radiation Oncology is dedicated to educating undergraduate and graduate students, MD and other health professions students, and residents. Its faculty members provide instruction for Doctor of Philosophy students in the Free Radical and Radiation Biology Program through their participation in FRRB:3110 Medical Physics I, FRRB:3215 Medical Physics II, FRRB:5000 Radiation Biology, FRRB:7000 Redox Biology and Medicine, and FRRB:7001 Molecular and Cellular Biology of Cancer.

The department's professional staff provides training in radiation therapy technology for undergraduate students in the Radiation Sciences Program by teaching courses RSTH:3120 Radiation Therapy Clinical Internship I, RSTH:3225 Radiation Therapy Clinical Internship II, RSTH:3325 Radiation Therapy Clinical Internship III, RSTH:4125 Radiation Therapy Clinical Internship IV, and RSTH:4225 Radiation Therapy Clinical Internship V.

The department also offers specialized research projects and sponsors postdoctoral students in biology, physics, and clinical disciplines by arrangement with the instructor or mentor. Frequently, students from the departments of Biomedical Engineering and Electrical and Computer Engineering are involved.

Residency

The department provides a four-year physician residency training program in radiation oncology that includes clinical care and education. It also has a two-year residency program in medical physics.

MD students can elect a four-week radiation oncology rotation and/or a two-week multidisciplinary cancer care elective. Nursing students, dental residents, and fellows in gynecologic oncology, breast cancer, and in adult and

pediatric hematology and oncology complete rotations in the department.

Courses

Radiation Oncology Courses

RADO:8401 Radiation Oncology for Medical Students **4 s.h.**

Integration of clinical oncology, physics, and cancer biology; clinical work with faculty mentors; experience in clinical evaluation, technical physics, biological application.

RADO:8491 Introduction to Radiation Oncology **2 s.h.**

Role of radiation therapy in the management cancer patients; exposure to a variety of radiation oncology topics including basic principles of radiation oncology, radiation physics, radiation/cancer biology, oncologic work-up and management, and radiation treatment planning; for advanced medical students with an interest in radiation oncology or oncology related specialties.

RADO:8497 Research in Radiation Oncology **arr.**

Medical research, clinical or laboratory projects; individual study.

RADO:8498 Radiation Oncology On Campus **arr.**

Arranged by student with department approval.

RADO:8499 Radiation Oncology Off Campus **arr.**

Arranged by student with department approval.