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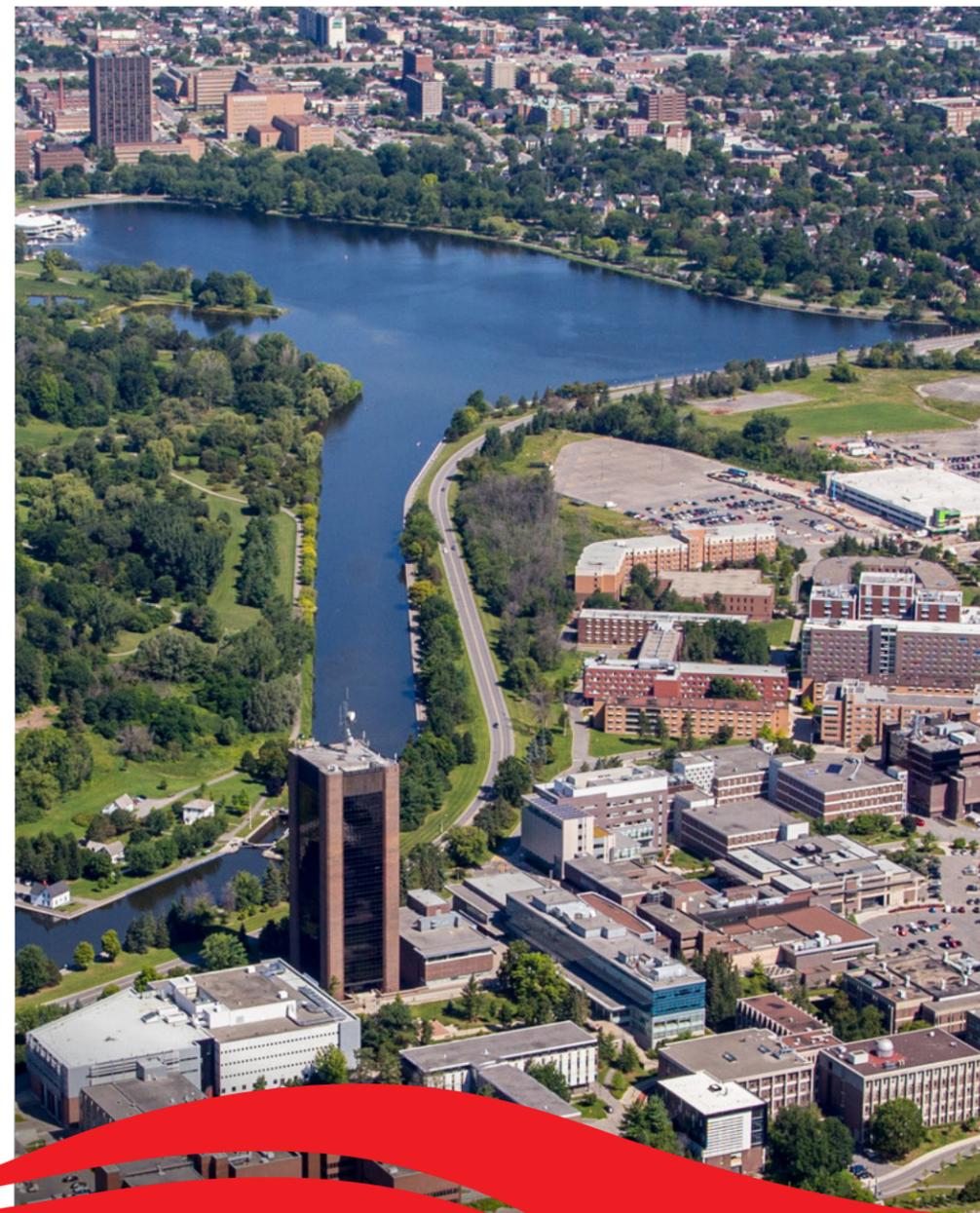
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# Graduate Programs in Medical Physics



**For more information**  
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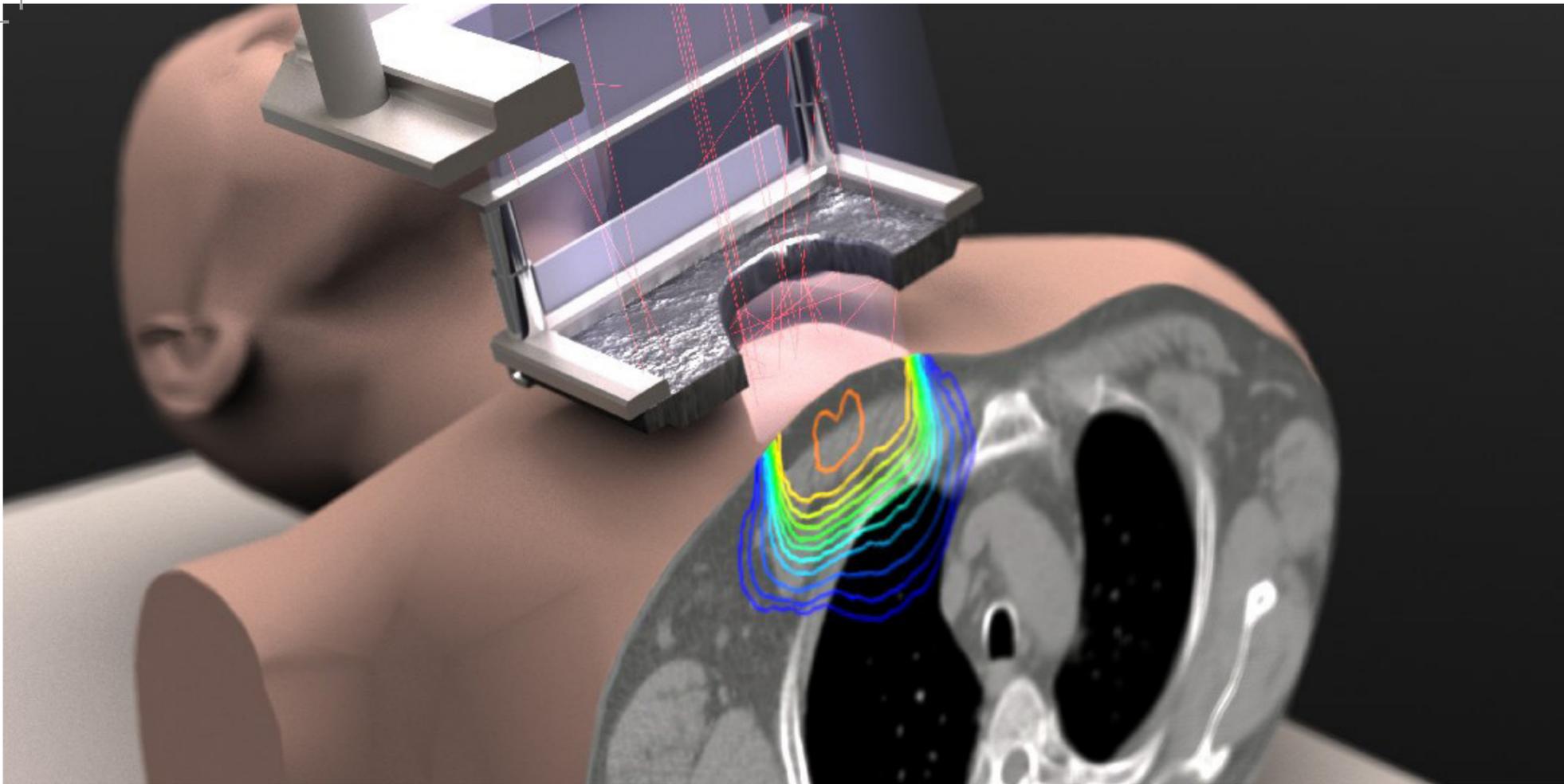
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## Graduate Programs in Medical Physics

Physics continues to make critically important contributions to the health field — contributions that save lives. Medical physicists improve the understanding, diagnosis and treatment of disease using the tools of physics. More information about medical physics and its profile in Canada is available at: [comp-ocpm.ca](http://comp-ocpm.ca).

Carleton's Department of Physics offers two outstanding programs in the area of medical physics — a Master of Science (MSc) and a PhD. In both programs, there are three areas of specialization: imaging, cancer therapy and medical biophysics. Our programs are linked with the University of Ottawa through the Ottawa-Carleton Institute for Physics ([ocip.ca](http://ocip.ca)) which allows both universities to offer a broad spectrum of complementary programs.

Our PhD program in medical physics is accredited by the Commission on Accreditation of Medical Physics Educational Programs [campep.org](http://campep.org).

We are a research-intensive department and our doctorate involves a substantial research project which builds on the courses taken.

We also offer a combined specialization in Data Science at the Master's level.

### Research Opportunities

Medical physics research on the Carleton campus includes Monte Carlo computer simulations for radiotherapy dosimetry and treatment planning system development, x-ray imaging, Raman spectroscopic imaging for biomedicine, motion compensation for both imaging and

therapy. Off campus there is active research in cancer radiation therapy treatment delivery, verification, and dosimetry; in MRI, PET, and SPECT, and radiation imaging applications to security; and in radiation biology and environmental health physics. All of this activity is networked through the Ottawa Medical Physics Institute (OMPI), a city-wide Carleton University research network ([physics.carleton.ca/ompi](http://physics.carleton.ca/ompi)).

### Capital Advantage

Carleton University's location in the nation's capital places you in the highest concentration of scientific and technical expertise in the country, providing unparalleled access to both personnel and resource material. Our faculty and students work closely with physicists at centres such as The Ottawa Hospital Dept of Medical Imaging, The Ottawa Hospital Cancer Centre, Royal Ottawa Mental Health Centre, The National Research Council Canada, the University of Ottawa Heart Institute and Health Canada.

Our alumni hold positions such as medical physicists helping to provide patient

treatment in clinical settings, researchers and academics in medical physics, medical physicists in regulatory agencies, and industry. Our alumni are located across Canada, the U.S. and overseas.

### Admission Requirements

An Honours BSc in Physics or a closely related field with at least high honours standing is normally required for admission to the MSc program. It is strongly recommended that all students have had at least one course in computing.

An MSc in Physics, or a closely related field, with at least a B+ average is normally required for admission into the PhD program. Students holding an MSc in a discipline of physics outside of medical physics will be considered.

Students who have been admitted to the MSc program may be permitted to transfer into the PhD program if they demonstrate academic abilities for advanced research in their field. Specific program requirements can be found in the Graduate Calendar online at: [calendar.carleton.ca/grad](http://calendar.carleton.ca/grad).

### Required Documents you need to provide:

- a Statement of Interest
- a minimum of two references
- official copies of transcripts from all post-secondary institutions that you have attended
- for the PhD, more detailed information on prior courses in medical physics
- if applicable, an official copy of your English-language test scores

### Application & Deadlines

For more information about our program(s), please visit this website: [physics.carleton.ca/future-students/graduate](http://physics.carleton.ca/future-students/graduate).

Details about how to apply are available here: [graduate.carleton.ca/apply-online](http://graduate.carleton.ca/apply-online).

You can access an online application at this website: [360.carleton.ca](http://360.carleton.ca)

**Deadline:** January 15 (late applications will be considered if openings remain)

### Language Requirements

For admission into Carleton's graduate programs, you will need to demonstrate that your knowledge and use of English are strong enough for graduate studies at an English-language university. For a listing of our minimum English-language requirements, please visit our website at: [graduate.carleton.ca/international](http://graduate.carleton.ca/international).

### Financial Assistance

Generous funding is available in the form of teaching/research assistantships and scholarships based on academic excellence. For additional information on physics graduate student funding, visit: [physics.carleton.ca/future-students/graduate/funding-and-awards](http://physics.carleton.ca/future-students/graduate/funding-and-awards).

Carleton is also known for its graduate degrees in particle physics [physics.carleton.ca](http://physics.carleton.ca).

I was drawn to Carleton's physics program because of its distinguished medical physics faculty who research on radiation therapy of cancer. Within the department, there is a great sense of community and a great deal of collaboration, idea-sharing and support.  
- Elsayed Ali, PhD/12 (physics)

