



MASTER'S OF ADVANCED STUDIES IN MEDICAL PHYSICS

First cycle 2014-2015



Second cycle 2015-2016



Trieste University Hospital

Miramare, Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP) has initiated the **first ICTP and Trieste University Master's of Advanced Studies in Medical Physics**, a two-year training programme in the field of Medical Physics, co-sponsored by The World Academy of Science (TWAS) with the patronage of the Trieste University Hospital.

The Master's Degree will be awarded by Trieste University to those candidates who successfully complete all examinations, clinical training and other requirements as may be decided upon by the Master's Committee.

The Master's Programme is designed to provide young promising graduates in physics or equivalent (mainly from developing countries that are members of the United Nations, UNESCO or IAEA) with post-graduate theoretical and clinical training suitable to be recognised as Clinical Medical Physicists in their countries. The minimum qualification for applicants is a degree equivalent to a M.Sc. in Physics or related fields. *Candidates who have received their degree outside Italy must obtain a "Dichiarazione di Valore" from the Embassy in their country, testifying that their curriculum studiorum is equivalent to the Italian "Laurea specialistica" (5 years of University studies).* The selection of candidates will be based on their university performance, research activity and professional experience in the field. Adequate proficiency in the English language is required. The maximum number of students admitted is 18.

The first cycle started in February 2014 and will end in December 2015 and will lead to the Master's Degree in Medical Physics. The call for the second cycle has been delivered in May 2014 for the period 2015-2016 (deadline 31 August 2014).

In the first year, students will attend classes at the ICTP and follow lectures and exercise sessions, while the second year will be dedicated to clinical training that will be carried out in a Medical Physics Department of a hospital in the training network. The clinical training will follow the specific recommendations of the IAEA.

The First Cycle

The response to the first call for applications was very large. Out of the more than 250 applications received, we were able to select 13 applicants from Ecuador, Ghana, Guatemala, Iran, Madagascar, Montenegro, Morocco, Nigeria, Qatar, Togo and Viet Nam.

Organizers of the Master's in Medical Physics Programme

Director: Renata LONGO (UNITS)

Coordinator: Renato PADOVANI (ICTP)

Master's Committee: for ICTP: Luciano BERTOCCHI (ICTP) and Mario DE DENARO (Trieste University Hospital); for UNITS: Edoardo MILOTTI and Luigi RIGON

External Scientific Referents: Ahmed MEGHZIFENE (Head Medical Physics Section, IAEA) Slavik TABAKOV (President, IOMP)

To apply online: <http://onlineapps.ictp.it/ENTER/APPLICANT/2662.mhtml>

<http://www.ictp.it/programmes/mmp.aspx>

ICTP Master's in Medical Physics Programme
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The Programme

The Master's Degree Programme in Medical Physics consists of several basic and advanced training courses and practical and clinical training given by experts in these fields.

First year programme:

- *Anatomy and Physiology as applied to Medical Physics*
- *Radiobiology*
- *Radiation Physics*
- *Radiation Dosimetry*
- *Physics of Nuclear Medicine*
- *Medical Physics Imaging Fundamentals*
- *Physics of Diagnostic and Interventional Radiology (X rays, US, MRI, Hybrid systems)*
- *Physics of Radiation Oncology*
- *Radiation Protection*
- *Information Technology in Medical Physics*
- *Medical Statistics*

In total 330 hours of lessons and 230 hours of guided exercises

Second year programme

- *Clinical training in radiotherapy, diagnostic and interventional radiology, nuclear medicine and radiation protection in a hospital of the clinical network (hospitals in Northern Italy and other nearby countries) (1200 hours)*
- *Thesis work (125 hours)*

The Faculty

The faculty ensures a wide spectrum of knowledge in all areas of medical physics from academia, research and hospitals - about 30 professors from ICTP, Trieste University, Elettra Synchrotron, Trieste University hospital and from the Medical Physics departments of hospitals of the clinical network. At present, the Medical Physics departments providing the clinical training are in

- University Hospitals of Trieste, Udine, Verona, Zagreb
- Oncology Institutes of Aviano, Padova
- General Hospitals of Milano (Niguarda), Trento, Torino and Vicenza

**Application deadline:
31 August 2014**

