

M.Sc. & Ph.D. in Medical Physics Department of Radiology, Faculty of Medicine Chulalongkorn University | Bangkok | Thailand









The graduate program in Medical Physics at Chulalongkorn University was established in 2003 (initially as the M.Sc. program in Medical Imaging). The program is designed for students who, upon completing their degrees, wish to prepare themselves for an eventual work in the field of diagnostic radiology, nuclear medicine, radiation therapy, and other subspecialties. Through coursework and research, the students will be exposed to basic as well as advanced principles of medical physics from both technological and clinical perspectives.

Degree requirements Required courses M.Sc.: 22 credits

Elective courses M.Sc.: 6 credits Ph.D.: 2 credits

Thesis M.Sc.: 12 credits Ph.D.: 38 credits

Ph.D.: 10 credits

M.Sc. Elective Courses

oncology | Brachytherapy

Physics of MRI | Principles of CT

Diagnostic Radiology

Radiation Therapy

Nuclear Medicine





Imaging for radiation oncology | Physics of radiation therapy | Radiation

Physics of nuclear medicine | Radiobiology for nuclear medicine | Basic

medical sciences for nuclear medicine | Clinical nuclear medicine imaging

Physics of diagnostic radiological imaging | Non-ionizing radiation |



M.Sc. Required Courses

- Radiological Physics & Dosimetry
- Radiation Protection & Safety
- Mathematics in Medical Physics
- Biomedical Instrumentation
- Anatomy & Physiology for MP Diagnostic Imaging
- Medical Image Processing
- Medical Imaging Informatics
- Clinical Dosimetry
- Research in Medicine
- Radiation Biology
- Clinical Practicum in MP











Medical

Image

Processing

Radiotherapy & Imaging | **Treatment** planning |





Research Areas



Ph.D. Required Courses

- Scientific Publication and Presentation in the Age of Information Technology
- Statistics in Biomedical Sciences and Biotechnology
- Advanced Research Methodology in Medical Physics
- Advanced Radiation Detection and Dosimetry
- Advanced Mathematics for Medical Physicists
- Advanced Clinical Methods in Medical Physics
- Digital Processing of Medical Images
- Seminar in Medical Physics
- Qualifying Examination



The academic faculty and 3 first batch PhD students in medical physics program @ Chula U.

Ph.D. Elective Courses

- Special Technique in Radiation Therapy
- Medical Image Reconstruction
- Advanced MRI
- Advanced Medical Imaging Physics
- Special Topics in Medical Physics

Imaging dosimetry

Nuclear Medicine

Diagnostic

imaging



International Research Collaborations

- International Atomic Energy Agency (IAEA)
- Kyushu University, Japan
- Nagoya University, Japan
- Fujita Health University, Japan
- Hokkaido University, Japan
- MD Anderson Cancer Center, USA
- University of California, San Diego, USA
- DMIP & RTD laboratory, Johns Hopkins University, USA
- Massachusetts General Hospital, Harvard Medical School, USA

MPCU Teacher's Day







