

# Program directives

## Vision

To be a center of excellence in research, education, and training in medical physics in the national and international level

## Mission

To develop the highest quality programs of teaching and research and to produce medical physics graduates to fulfill national and international demand



# Prospectus

Alumnae of our program primarily excel in their career as clinical medical physicists, radiation protection experts, state regulators, national bureaucrats, as well as academics and researchers dealing with the advancing world of medical physics. Career as product experts at medical devices companies are promising as well.

## Facilities

Students are entitled to all the facility of the Department, Faculty, and University. Access to library and online literatures (academic journals) are provided. The laboratories provides access for students to devices and tools for research. The equipment and practical are managed in 5 laboratories :

- ❖ Radiation Physics Laboratory
- ❖ Medical Physics Laboratory
- ❖ Treatment Planning Laboratory
- ❖ Computational Medical Physics Laboratory
- ❖ Biophysics Laboratory

## Sharing Facilities

For clinical attachment and practical session, we collaborated with several hospitals through Memorandum of Understanding i.e. Cipto Magnankusumo hospital, Dharmais Cancer Center, Siloam Hospital Semanggi, and Pasar Minggu hospital.

## Faculty Members UI

Prof. Dr. Djarwani S. Soejoko | *Medical physics and Biomedical Material*  
Prof. Dr. Neng Tine Kartinah | *Pato-Anatomy and Physiology*  
Supriyanto A. Pawiro, Ph.D. | *Radiotherapy Physics*  
Dr. sc. hum. Dwi Seno K. Sihono | *Radiotherapy Physics*  
Dr. sc. hum. Deni Hardiansyah | *Nuclear Medicine Physics*  
Nurlely, Ph.D. | *Biophysics, Biomedical Material, Biosensor*  
Prawito Prajitno, Ph.D. | *Computational and Image Processing*  
Sastra Kusuma Wijaya, Ph.D. | *Biomedical Instrumentation*  
Kristina Tri Wigati, MSc | *Diagnostic Radiology Physics*  
Lukmanda Evan Lubis, MSc, F.Med | *Diagnostic Radiology Physics*  
Akbar Azzi, MSc, F.Med | *Radiotherapy Physics*

## Visiting Professors/Lecturers

Prof. Dr. Dietmar Georg | Medical University of Vienna, Austria  
Prof. Dr. Wolfgang Birkfellner | Medical University of Vienna, Austria  
Prof. Dr. Hilde Bosmans | Catholic University of Leuven, Belgium  
Prof. Dr. Gerhard Glatting | Ulm University, Germany  
Markus Stock, Ph.D. | Particle Therapy Center, MedAustron, Austria  
M. Hafiz Zin, Ph.D. | USM / AMDI  
Rafidah Zainon, Ph.D. | USM / AMDI

## 1<sup>st</sup> and 2<sup>nd</sup> Semester (Mandatory Courses – 20 credits)

Pato-Anatomy, and Physiology (2 credits)  
Advanced Radiological Physics and Dosimetry (2 credits)  
Application of Radiobiology (2 credits)  
Medical Imaging Physics (2 credits)  
Radiotherapy Physics (2 credits)  
Computational Medical Physics (2 credits)  
Laboratory work (2 credits)  
Sensor and Biomedical Instrumentation (2 credits)  
Biomedical Physics (2 credits)  
Ethics of Medical and Clinical Medical Physics (2 credits)

## 2<sup>nd</sup> Semester (Elective Courses – 6 credits)

### Radiotherapy Physics Track

Imaging and Radiotherapy Planning Technology (3 credits)  
Advanced Radiotherapy Techniques (3 credits)  
Radiation Protection and Safety (2 credits)

### Imaging and Nuclmed Physics Track

Advanced Medical Imaging Physics (3 credits)  
Advanced Nuclear Medicine Physics (3 credits)  
Radiation Protection and Safety (2 credits)

### Biomedical Physics Track

Bioelectromagnetism (2 credits)  
Biomedical Materials (2 credits)  
Biological Material (2 credits)  
Biomedical Optics (2 credits)

## 3<sup>rd</sup> Semester

Scientific Publication (2 credits)

## 4<sup>th</sup> Semester

Master Thesis (8 credits)

## Title Awarded

Upon the completion of their study, students will be awarded the title Magister Sains (M.Si.)

## The Structure

Master of Medical Physics study program UI is the first master medical physics study program in Indonesia. For details about master of medical physics study program, see <http://https://physics.ui.ac.id/academic/master-in-medical-physics/>

# Courses



## CPD and training

Students are able to take part in Continuing Professional Development programs in frequent workshops, seminars, and scientific forums held by the program in conjunction with national and international Medical Physics communities.

Opportunities to be involved in professional training (Clinically-Qualified Medical Physicist Residency training) is available for students. Students can be enrolled as residents either after graduation (regular residency) or during the studentship (hybrid program). The residency program complies with IAEA recommendations.





## Entry requirements

For admission into M.Sc. in Medical Physics study program, applicants must have at least an undergraduate degree in Physics or Nuclear Engineering with strong foundation in Physics and Mathematics.

## Application procedure

Admission exam is held by Universitas Indonesia's central admission office. For schedules and procedures, see <http://penerimaan.ui.ac.id/> or <http://international.ui.ac.id/>.

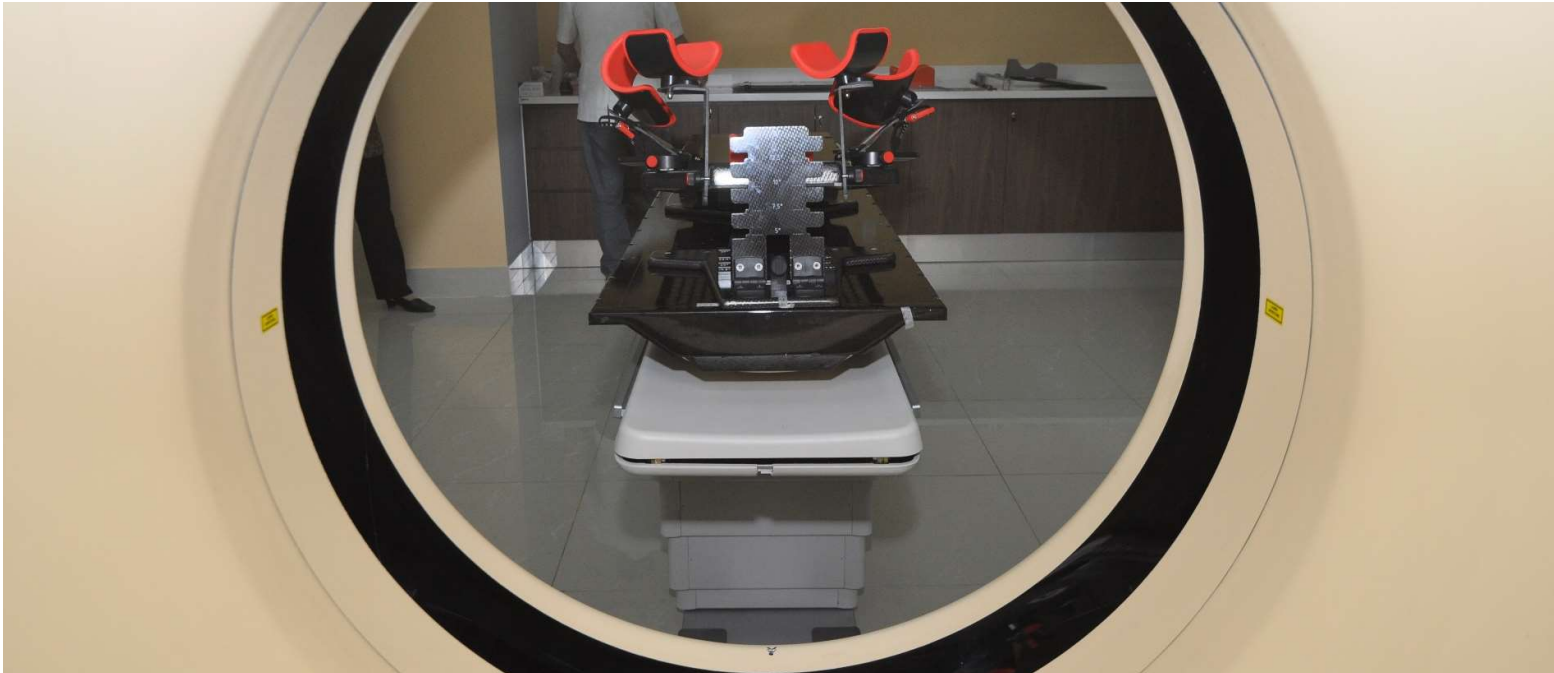
## Funding opportunities

- ✚ Research Grant: cumsumable goods, national or international seminar and publication fee
- ✚ CMPB-UI Fellowship: Partial tuition fee
- ✚ Potential source funding: IAEA Marie Curie Fellowship Program, DEXA scholarship, IsDB scholarship, Ministry of Health Scholarship Program, Beasiswa Unggulan, and LPDP scholarship

## Further information

For detailed information regarding admission procedure:  
Universitas Indonesia Central Admission Office  
Gedung PMB UI (ex.BNI)  
Kampus UI Depok, 16424  
Tel: (+6221) 78849129, 7864126, 78849104  
E-mail: [penerimaan@ui.ac.id](mailto:penerimaan@ui.ac.id)

For information on Medical Physics :  
Master of Medical Physics Study Program  
Department of Physics, FMIPA UI  
Kampus UI Depok, 16424  
E-mail: [mag.fismed@sci.ui.ac.id](mailto:mag.fismed@sci.ui.ac.id)



# Master of Science in Medical Physics