

Programme Overview

Technological advances and developments in physics and medicine, particularly in radiology, radiotherapy and nuclear medical physics have created a demand for Qualified Medical Physicists to support the current progress in the healthcare sector. Healthcare providers rely heavily on continued education and training of medical physicists in order to achieve and maintain international health standards.

The objectives of the M.Sc. in Clinical Medical Physics and PG Diploma in Medical Physics are:

- To develop professionals with competences in diagnostic imaging, nuclear medicine, radiation therapy, and health physics.
- To produce a cadre of Medical Physicists who are competent by virtue of their education and training to practice one or more of the key subfields of Medical and Health Physics: Diagnostic and Therapeutic Radiological Physics, Nuclear Medical Physics, Environmental and Industrial Health Physics.
- To build local and regional capacity for sustainable education, training and research in Medical Physics.
- To equip students with the knowledge and skills required to pursue doctoral studies.
- To facilitate Continuing Professional Development in relation to Clinical Medical Physics.

Entry Requirements

- Bachelor's degree in: Physics or an equivalent relevant physical or engineering science with a minimal cumulative GPA of 2.5 (Lower Second Class Honours) from a university of recognized standing. Students holding overseas degrees are welcome to apply.
- Candidates who do not meet these criteria, but who have at least 3 years of professional experience in a relevant area may also be admitted under special circumstances consistent with the entry requirements for Specially Admitted Students under The UWI Regulations for Graduate Diplomas and Degrees.

How to Apply

Visit <https://www.mona.uwi.edu/entry-requirements>, click on **apply now**, create an account and follow the instructions.

Submit supporting documents to
Assistant Registrar, Office of Graduate Studies and Research,
The University of the West Indies, Mona Campus.

Request degree granting institutions other than The UWI to forward official transcripts directly to the **Office of Graduate Studies and Research, The University of the West Indies, Mona Campus.**

Duration

MSc (full-time) – 24 months | Postgraduate Diploma (PgDip) – 12 months

Programme Structure

| COURSE CODE | COURSE TITLE | CREDITS |
|--|---|---------|
| CORE COURSES (YEAR 1)/PgDIP | | |
| MDPH6115 | Anatomy and physiology for clinical medical Physicists | 2 |
| MDPH6135 | Fundamentals of Clinical Radiation Physics and Dosimetry | 2 |
| MDPH6170 | Information Technology and equipment in Radiation Medicine | 2 |
| MDPH6180 | Biomedical Statistics | 2 |
| MDPH6190 | Radiation Biology | 2 |
| MDPH6215 | Diagnostic Radiology: Physics, Equipment and Applications | 3 |
| MDPH6230 | Nuclear Medicine: Physics, Equipment and Applications | 3 |
| MDPH6240 | Non-Ionization Radiation: Physics, Equipment and Applications | 3 |
| MDPH6260 | Radiation Therapy 1: Physics, Equipment and Applications | 3 |
| MDPH6270 | Radiation Therapy 2: Physics, Equipment and Applications | 3 |
| MDPH6280 | Radiation Safety and Protection | 3 |
| TOTAL CORE (YEAR 1) CREDITS: 28 | | |
| CLINICAL RADIOTHERAPY (YEAR 2) | | |
| Total Year 2 Credits: 24 Taken from the courses below | | |
| MDPH6290 | Professional Ethics | 1 |
| MDPH6410 | Radiation Safety and Protection in Radiotherapy | 2 |
| MDPH6420 | Imaging Equipment in Radiotherapy | 1 |
| MDPH6430 | Radiation Dosimetry for External Beam Therapy | 4 |
| MDPH6440 | Quality Management in Radiotherapy | 2 |
| MDPH6450 | External Beam Radiotherapy | 4 |
| MDPH6460 | Brachytherapy | 2 |
| MDPH6470 | Equipment Specification and Acquisition in Radiotherapy | 1 |
| MDPH6480 | Clinical Environment and Optimization in Radiotherapy | 2 |
| MDPH6610 | Medical Physics Clinical Research Project | 4 |
| MDPH6620 | Seminar | 1 |
| CLINICAL DIAGNOSTIC RADIOLOGY AND NUCLEAR MEDICINE (YEAR 2) | | |
| Total Year 2 Credits: 24 Taken from the courses below | | |
| MDPH6290 | Professional Ethics | 1 |
| MDPH6510 | Radiation Safety and Protection in Diagnostic and Interventional Radiology | 3 |
| MDPH6515 | Dosimetry, Instrumentation and Calibration in Diagnostic and Interventional Radiology | 3 |
| MDPH6520 | Performance Testing of Imaging Equipment in Diagnostic and Interventional Radiology | 3 |
| MDPH6525 | Technology Management in Diagnostic and Interventional Radiology | 3 |
| MDPH6530 | Image Quality Assessment in Diagnostic and Interventional Radiology | 3 |
| MDPH6535 | Patient Dose Audits in Diagnostic and Interventional Radiology | 3 |
| MDPH6540 | Radiation safety and protection in Nuclear Medicine | 2 |
| MDPH6545 | Technology Management in Nuclear Medicine | 1 |
| MDPH6550 | Radioactivity measurement and internal dosimetry in Nuclear Medicine | 1 |
| MDPH6555 | Performance testing of Nuclear Medicine equipment | 2 |
| MDPH6560 | Preparation and quality control of radiopharmaceuticals | 1 |
| MDPH6565 | Radionuclide therapy using unsealed sources | 1 |
| MDPH6580 | Clinical Environment and Optimization in Nuclear Diagnostics | 2 |
| MDPH6610 | Medical Physics Clinical Research Project | 4 |
| MDPH6620 | Seminar | 1 |
| TOTAL PROGRAMME CREDITS: 52 | | |

Contact Information

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