CURRICULUM

Foundation Course | 2 units

APhysics 201	Human Anatomy and Physiology for Medical Physicists	2

Core Courses | 9 units

APhysics 211	Radiation Physics for Medical Physicists	2
APhysics 212	Radiation Dosimetry (2 units lec; 1 unit lab)	3
APhysics 213	Radiation Protection and Safety	2
APhysics 214	Radiobiology	2

Major Courses | 19 units

APhysics 241	Physics of Diagnostic and Interventional Radiology (2 units lec; 1 unit lab)	3
APhysics 251	Physics of Nuclear Medicine (2 units lec; 1 unit lab)	3
APhysics 261	Physics of Radiation Oncology (2 units lec; 1 unit lab)	3
APhysics 287	Medical Imaging Fundamentals	2
APhysics 299	Research Methods and Ethics	2
APhysics 300.1	Thesis Proposal	3
APhysics 300.2	Thesis Implementation	3

Electives/Cognates | 2 units

Applied Physics 297 Special Topics
Possible Special Topics
Advanced Radiation Therapy Planning
Machine Learning in Radiation Oncology
Monte Carlo Methods in Radiation Therapy
Statistics for Medical Physics
Advanced Quantum and Functional Imaging
Radiopharmaceutical Chemistry
Computational Methods of Radiation Transfer
Cancer Biology and Biotechnology

Total Units 32

SUSTAINABLE DEVELOPMENT GOALS

Further inquiries may be sent to:
OFFICE OF THE DEAN
College of Arts and Sciences
Tel nos: (+632) 85163228

(+632) 8516-3228

Scan to visit our website:
https://cas.upm.edu.ph/

CONTACT US

Application forms may be obtained from and returned to:

THE DIRECTOR
NATIONAL GRADUATE OFFICE FOR THE HEALTH SCIENCES

(632) 88141 247
(632) 88141 248

National Graduate Office for the Health Sciences

upm-ngohs@up.edu.ph

ngohs.upm.edu.ph

Scan to visit NGOHS website

S. 2023

COLLEGE OF
ARTS AND SCIENCES

MASTER OF SCIENCE IN APPLIED PHYSICS (MEDICAL PHYSICS)

PROGRAM DESCRIPTION

The Master of Science in Applied Physics (Medical Physics) program is a two-year program which offers qualified students, particularly those with backgrounds in physics, applied physics, and engineering, the opportunity to do graduate course work and research in the applications of the concepts and methods of physics to the diagnosis and treatment of human disease.

Graduates of the proposed MS Applied Physics (Medical Physics) program are eligible to undertake a clinical residency leading to board certification in three specialty areas, namely: radiation oncology medical physics, diagnostic radiology medical physics, and nuclear medicine medical physics. The clinical residency and board certification is done by the Society of Medical Physicists in the Republic of the Philippines (SMPRP).

PROGRAM OBJECTIVES

At the end of the program, graduates should be able to:

1. Apply theoretical, computational, and experimental physics in a career in medical physics;
2. Implement radiation safety principles in the practice of medical physics;
3. Evaluate research evidence and scholarly works in medical physics for evidence-based practice;
4. Collaborate effectively in a multidisciplinary environment involving the practice of medical physics;
5. Acquire updated/new scientific knowledge and skills through continuing education over the course of their careers;
6. Practice professionalism and ethical conduct required of medical physicists; and
7. Conduct research, training, and clinical practice towards the improvement of healthcare in the country.

ACADEMIC INFORMATION

Schedule of Semesters:
1st Semester: August to December
2nd Semester: January to May
Midyear: June and July (6 weeks)

Number of Units:
Full-time: 9-12 units/semester
Part-time: 1-8 units/semester
Midyear: 1-6 units

Fees:
Tuition Fee: P2,500.00/unit
Laboratory Fee: P3,000/unit
Library Fee: P1,050.00
Other fees: P350.00/semester
Processing Fee: P300.00

Additional Fees for Foreign Applicants:
Processing Fee: US$ 30.00
Educational Development Fund: US$ 500.00
(US$100.00 for residency only)/semester

Submission of Applications:
1st Semester: February until the last working day of April
2nd Semester: To be announced if offered

The following are the grade requirements for each student to be of good standing in the program:

1) General weighted average of 2.00 or better;
2) Weighted average of 2.00 or better for the major/required courses; and
3) No grade of 5.00 in any academic course.

***A maximum of 5 years is given to a student to finish the program.*

Living accommodations for students may be provided in privately-owned housing units/dorms/apartment hotels. Dorms offer lodging and/or board. There are privately-owned eateries around the school.

SCAN TO DOWNLOAD APPLICATION

ADMISSION REQUIREMENTS CHECKLIST

The following are the minimum NGOHS requirements:

1. Graduates of BS Applied Physics or BS Physics are eligible for admission into the program.
2. Graduates of natural science, engineering, and health science courses may be admitted into the program provided they have taken the following courses:
   - Calculus and Differential Equations
   - Numerical methods/Computational Physics
   - Electricity, Magnetism and Optics
   - Modern Physics and Relativity
   - Quantum Physics
   - Classical Physics
   - Thermodynamics/Statistical Physics

   If not, applicants will be advised to enroll in the appropriate audit courses.
3. Duly accomplished Application Form (downloadable through the NGOHS website: ngohs.upm.edu.ph)
4. Comply with the General requirements found on the 2nd page of the Application Form (UPM-NGS-OP-01F1)

Graduation Requirements:

- ☐ Residency of at least one full academic year prior to granting of degree
- ☐ Completion of 32 units (2 units foundation course, 9 units of core courses, 19 units of major courses, and 2 units of electives)
- ☐ A general weighted average of 2.00 or better
- ☐ Certificate of submission of research article for publication