

**T.C. DOKUZ EYLUL UNIVERSITY  
INSTITUTE OF HEALTH SCIENCES**

# **RADIOPHARMACEUTICAL SCIENCES**

**Master's Program**

# Radiopharmaceutical Sciences

Nükleer tıp insanda teşhis ve tedavi amacıyla radyoaktif madde (radyofarmasötik) kullanılan bir tıp alanıdır.

Radyofarmasi radyofarmasötiklerin etkin ve güvenli bir şekilde üretimi, hazırlanması, kullanılması, temini dağıtılması ile ilgili bir bilim dalıdır.

# Aim

- Dokuz Eylül University Radiopharmaceutical Sciences Master's degree provides education that aims to raise the science of Radiopharmacy to international standards.

# Gains of Education

- Training is provided on the uses of radionuclides and radiopharmaceuticals, **the design of radiopharmaceuticals, in vitro and in vivo evaluation,**
- **Legislation, principles of good radiopharmacy practice, radiopharmacy laboratory design, quality assurance calculations,** production, synthesis, preparation, and distribution calculations for radiopharmaceuticals, generator principles and use,
- **General physiology for nuclear medicine,** in vivo kinetics of radiopharmaceuticals, organ scintigraphy, **distribution, metabolism, excretion,** indications, imaging, and processing methods,
- **Basic principles of radionuclide therapy, dose calculations,**
- Preparation and monitoring of patients receiving radiopharmaceuticals, diagnostic and therapeutic protocols, patient image processing practice, sectioning, filtering, and reporting.
- **Students participate in the daily practice of radiopharmacy in the nuclear medicine department.**

# Education Program

- Radiopharmaceutical sciences is a thesis-based master's program lasting four semesters.
- Students must take 30 ECTS courses each semester, including 25 required and 5 elective courses.
- Courses taken during this period include: Radiation Physics and Instrumentation  
Health Physics
- Radiopharmacology
- Radiopharmacy
- Nuclear Medicine Imaging Techniques (PET, SPECT)
- Localization Mechanisms of Radiopharmaceuticals
- Cell Labeling Techniques

# Educational Staff

- Faculty members from Dokuz Eylül University Faculty of Medicine's Departments of Nuclear Medicine,
- Medical Biochemistry,
- Clinical Pharmacology, and Nuclear Physics are participating in the training.
- When necessary, contributions from guest lecturers and experts from different institutions are also utilized.

# Career Fields

- Working as a radiopharmacy specialist in hospitals and private centers in the field of nuclear medicine
- Working as a production manager, quality control officer, or responsible manager in facilities producing radioisotopes or radiopharmaceuticals
- Working in R&D
- Being an academic

# Admission Conditions

- Graduates of pharmacy, physics, chemistry, biochemistry, biology, chemical engineering or equivalent undergraduate programs, as well as medical school graduates, are eligible for admission.
- DEU Health Sciences Institute's admission requirements for graduate programs apply.