



This track develops fundamental scientific, technical and industrial knowledge of the different nuclear technologies used in the medical field. It has a particular focus on the safety and radioprotection, to be considered in the management of a large project in this field.

### ACADEMIC DETAILS

#### 2-year full time program

- > September intake – 4 semesters


#### Comprehensive curriculum

- > Projects, company visits, seminars
- > Professional coaching
- > French language & culture
- > Intercultural workshop
- > Master thesis/internship (last semester)

#### Internationally recognized degree

- > MSc in Basic physics and applications accredited by the Ministry of Higher Education, Research and Innovation.  
*No. 20170870 - 1702923D*

#### Associated tracks / programs

- > ANWM – Advanced Nuclear Waste Management
- > NEPIA – Nuclear Energy Production & Industrial Applications
- > SARENA - Erasmus Mundus label 

*Courses are subject to change without notice*

### M1 - YEAR 1 on Nantes campus

*Taught in English*

- > Physics of ionizing radiations
- > Detection of ionizing radiations
- > Introduction to nuclear modeling
- > Introduction to neutron physics
- > Radioprotection
- > Physico-chemistry of environment
- > Introduction to nuclear technology
- > Detection and industrial applications
- > Project management & entrepreneurship
- > Measurement and data analysis

### M2 - YEAR 2 on Nantes campus

*Taught in French*

- > Nuclear reactors and radiations
- > Mathematical tools & computer simulation
- > Radiation protection
- > Basics of medical physics and imaging
- > Dosimetry
- > Medical imaging techniques

**First year taught in English**

**6-month paid internship in a company or lab**

**Free application!**



**IMT Atlantique**

Bretagne-Pays de la Loire  
École Mines-Télécom



#NuclearTechnology  
#NuclearMedicine  
#Physics  
#Radioprotection  
#WasteManagement  
#MedicalImaging

## INTERNATIONAL EXPERIENCE

### CAREER OPPORTUNITIES

Project engineer related to medical installations, Safety engineer in medical installations, Operation engineer of medical installations (radiology equipment, accelerators...), Research scientist and development engineer for medical installations.  
Possibility to continue in PhD.

### RESEARCH EXPOSURE

The MSc is managed by Subatech, a joint research unit in Subatomic physics and associated technologies between the CNRS-IN2P3, IMT Atlantique and the University of Nantes. Fully integrated in major worldwide scientific collaborations, Subatech's research activities revolve around the fields of nuclear, hadronic, particle and astroparticle physics and radiochemistry.

### TUITION FEES AND SCHOLARSHIPS

12,000 Euros / year Scholarships  
Scholarships opportunities for:  
Excellent profiles, Alumni from our partner universities, European citizens, etc.

### Alumni Testimony

#### Thongchai (South Africa)

*"One of the thing I'm really grateful for is definitely the broadness of the courses offered and the flexibility in terms of what I could specialize in ."*



Watch the video:  
[youtu.be/2uOVejh5XgU](https://youtu.be/2uOVejh5XgU)



> CampusFrance "Bienvenue en France" guarantees the quality of the experience for international students.

### IMT ATLANTIQUE

IMT Atlantique is a "Grande Ecole" ranked among the best French Graduate Engineering Schools, and recognized internationally as a leading Technological University (Shanghai, QS and THE rankings). It is a member of IMT, the largest group of public Engineering and Management Graduate Schools in France.

- > On-campus accommodation, restaurants, sports facilities
- > Orientation Days & French Summer School
- > A variety of student clubs

Find out more:  
[www.imt-atlantique.fr/ne](http://www.imt-atlantique.fr/ne)

Contact us:  
[ne-apply@imt-atlantique.fr](mailto:ne-apply@imt-atlantique.fr)

Apply:  
<https://www.imt-atlantique.fr/apply>

International students FAQ:  
[www.imt-atlantique.fr/student-faq](http://www.imt-atlantique.fr/student-faq)

