



NUCLEAR ENGINEERING

International Master of Science (MSc)

Track NMA Nuclear Medical Applications

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 and Research. No. 20170870

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
- > Energy mix & energetic transition
- > Environmental management
- > Sustainability strategy

M2 - YEAR 2 on Nantes campus

Taught in French

- > Nuclear reactions and radiations
- > Mathematical tools & computer simulation
- > Radiation protection
- > Dosimetry
- > Medical imaging techniques
- > Management, safety & society

First year taught in English

6-month paid internship in a company or lab

PhD opportunities



IMT Atlantique
Bretagne-Pays de la Loire
École Mines-Télécom



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



WATCH AN ALUMNUS INTERVIEW

« 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. »



Thongchai, Alumnus from South Africa

MSc in Nuclear Engineering,
Track in Nuclear Medical Applications

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

9,000 Euros / year
Scholarships opportunities for:
Excellent profiles, Alumni from our partner universities, European citizens, etc.



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

IMT ATLANTIQUE

is one of the top 5 institutions in engineering in France. As a leading Technological University, its education, research and innovation activities are recognized internationally :
Top 500 in the THE World University Ranking,
Top 400 in QS ranking for « Physics & Astronomy ».

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

Find out more:
www.imt-atlantique.fr/ne

Contact us:
ne-apply@imt-atlantique.fr

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

