This program focuses on nuclear sciences applications including energy production (power reactors) and industrial applications (particles beams technology, instrumentation,…). A particular focus is put 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
> Intercultural workshop
> French language & culture
> Master thesis/internship (last semester)

Internationally recognized degree
> MSc in Nuclear Engineering (NE) accredited by the Ministry of Higher Education, Research and Innovation. No. 20170877

Associated tracks / programs
> ANWM – Advanced Nuclear Waste Management
> NMA - Nuclear Medical Applications
> SARENA - Erasmus Mundus label

M1 - YEAR 1 on Nantes campus
> 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
> Basics for reactors
> Dismantlement and decommissioning
> Nuclear materials
> Operation and maintenance
> Sustainability and safety management

Courses are subject to change without notice

100 % taught in English

6-month internship in a company or lab

Erasmus Mundus full scholarships
CAREER OPPORTUNITIES
Project engineer related to nuclear energy, Safety engineer in nuclear power plant and industrial installations, Operation and maintenance engineer in nuclear power plant, Research scientist and development engineer for industrial installations and power plants, etc.
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 opportunities for: Excellent profiles, Alumni from our partner universities, European citizens, etc.

Alumni Testimony
Dong Yemin (China)
“France has been a leading country in terms of nuclear technology for years. The Master program really reflects this advanced-level, you can experience it everyday of your studies.”

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.

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