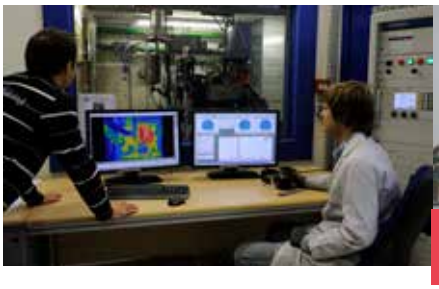
REINVENT ENGINEERING

ATLANTIC MASTER ON SHIP OPERATION AND NAVAL ENGINEERING

OBJECTIVES

Through this programme students will develop skills in naval engineering to become engineers experienced in ship operations.

Two of the top French Technical Universities (Ecole Navale in Lanvéoc-Poulmic and Centrale Nantes) have teamed up to offer you a unique programme. The outstanding strength of this MSc programme is that you will have on-board training sessions on French Navy vessels. The insight gained into on-board practices, use of complex equipment and immersion into rapidly evolving knowledge and techniques is highly valuable for a naval engineer, and of course, highly regarded by industrial employers.



SKILLS

Specialism specific

- Model and understand the concepts of naval hydrodynamics
- Master the energetic and propulsion systems on ships
- Integrate the human and technical constraints of operational maritime implementation

General

- Identify models, perform simulation and analyse results
- Communicate comprehensive results in a meaningful way
- Undertake bibliographic surveys from international research and professional literature
- Manage or be part of a project

JOB PROSPECTS & FURTHER PhD STUDIES

SECTOR: Marine, Energy.

FIELDS: Ship building and naval architecture, naval engineering, offshore engineering companies.

JOB POSITIONS: Mechanical Engineer, Process Engineer, Design Engineer, Marine Systems Management, Research and Innovation Engineer (post PhD).

Graduate programme | Master of Science (MSc)

Location
Nantes, France - 2 hours from Paris
Lanvéoc-Poulmic, Brest, France - 4 hours from Paris
International campus life

87 nationalities

43% international students

Master of Science (MSc)

EXAMPLES OF FINAL YEAR INTERNSHIP/ MASTER'S THESIS

- CMA CGM: Container maintenance and repair assistant
- Naval Group: Dynamic analysis of shaft lines
- Saipem SA: Installation methods in Subsea Engineering Team
- Chantiers de l'atlantique (shipyard): Contingency management in an offshore substation production workshop

FACULTY, PARTNERS AND RESEARCH LABS

This MSc relies on the Centrale Nantes' and Ecole Navale's faculty, staff and research facilities of the GeM Institute, the LHEEA Laboratory. Our external partners include MAN Energy Solution France, ENSM, French Naval Academy Research Institute.

École Navale in Lanvéoc-Poulmic close to Brest is the French Naval Academy where French Navy officers are trained. In Ecole Navale students receive top notch scientific training and navigation knowledge in the maritime environment.

At Centrale Nantes students will have access to experimental facilities such as a towing tank, a wave tank and engine test benches.

Students spend a substantial amount of time on both sites Lanvéoc-Poulmic (around 30ECTS credits) and Nantes (around 60ECTS credits) over the 2 years of the programme.

OTHER PROGRAMME INFORMATION

- Length of Studies: 2 years
- Language of instruction: English
- 3 semesters of courses and 1 semester of Master's thesis

Tuition & Fees - Scholarships - Application process - Deadlines

MORE INFORMATION AND FULL PROGRAMME:
www.ec-nantes.fr/masters

CONTACT: master.admission@ec-nantes.fr

CONTENT AND COURSES

(A Master Degree requires the validation of 120 ECTS credits)

M1 - AUTUMN SEMESTER	ECTS
Fluid Mechanics 1	5
Algorithmics for Engineering Modelling	4
Maritime and Navigation Knowledge	5
Vibrations and Differential Equations	5
Business Environment	4
Numerical Methods	5
Modern Languages	2
Conferences	0
M1 - SPRING SEMESTER	**ECTS**
Fluid Mechanics 2	5
Energetics	5
Hydrodynamics	5
Labs in Propulsion Systems	3
Thermal machines	5
Propulsion	5
Conferences	0
Modern Languages	2
M2 - AUTUMN SEMESTER	**ECTS**
Training on ship	4
Hydrodynamics (advanced)	6
Thermal Machines	6
Maritime and navigation knowledge	6
Labs in Hydrodynamics and Propulsion Systems	6
Modern Languages	2
Project	0
Conferences	0
M2 - SPRING SEMESTER	**ECTS**
Master Thesis or Industrial Internship (paid)*	30

*In France, for internships exceeding 2 months a minimum legal level of remuneration (approximately €600 per month) is fixed by the government. In some professional branches, this amount may be higher.

NB Course content may be subject to minor changes