

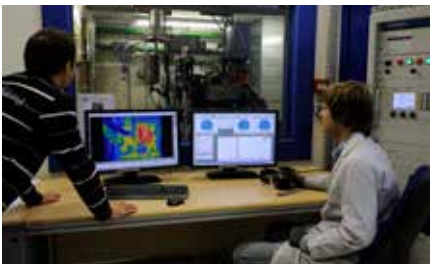


ATLANTIC MASTER ON SHIP OPERATION AND NAVAL ENGINEERING

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 Master 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: Marine Transportation, Marine Equipment, Wind and Marine Energy, Research and Innovation.

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





Location

Nantes, France - 2 hours from Paris
Lanvéoc-Poulmic, Brest, France -
4 hours from Paris

International campus life

87 nationalities
43% international students



EXAMPLES OF FINAL YEAR PROJECTS

5 to 6 month Internship in Industry

- > CFD optimisation process improvement: application to an underwater vehicle

5 to 6 month thesis in a Research Lab

- > Experimental methods using video analysis to measure the flow-induced motion of plants
- > Weak Scatter approach for the modelling of an OWC
- > Evaluation of second generation stability criteria for military ships

FACULTY, INDUSTRIAL PARTNERS AND RESEARCH LABS

This Master relies on the Centrale Nantes' and Ecole Navale's faculty, staff and research facilities of the GeM Institute, the LHEEA Laboratory and the IRENav Laboratory. Our industrial partners are leading international companies involved in ship building, ship design, marine engine industry or ship operations such as Naval Group, Bureau Véritas, Hydrocean, CGG, Man Diesel, STX and Pôle Mer Bretagne Atlantique.

PARTNERSHIP

École Navale in Lanvéoc-Poulmic close to Brest is the French Naval Academy where French Navy officers are trained. In Ecole Navale we deliver a high-level scientific training and navigation knowledge in the maritime environment.

At Centrale Nantes we provide a high-level naval engineer training programme. You will have access to experimental facilities such as a towing tank, a wave tank and internal combustion 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

www.ecole-navale.fr/en

CONTACT: Ms Sarah Alami
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 Initiation and Leadership	4
Knowledge of Marine Environment	5
Acoustics	4
Numerical Methods	4
Modern Languages	4
M1 - SPRING SEMESTER	ECTS
Fluid Mechanics 2	5
Energetics	5
Hydrodynamics (basics)	3
Training on Ship	2
Hydrodynamics	4
Propulsion	5
Electric Propulsion	2
Modern Languages	4
M2 - AUTUMN SEMESTER	ECTS
Training on ship	4
Advanced Hydrodynamics	5
Thermal Machines	5
Maritime and navigation knowledge	6
Labs in Hydrodynamics and Propulsion Systems	6
Modern Languages	4
M2 - SPRING SEMESTER	ECTS
Master Thesis or Industrial Internship	30

NB Course content may be subject to minor changes

