**Master's degree in Naval Architecture and Ocean Engineering**

The master's degree in Naval Architecture and Ocean Engineering, introduced in the 2017-2018 academic year, qualifies you to practise the regulated profession of naval and ocean engineer. It gives you the knowledge you need to design, build, maintain and assess ships and vessels of all kinds, as well as platforms and devices for the use of ocean resources. You will also be trained in the management and supervision of maritime businesses.

Naval architects and ocean engineers are professionals who have the ability to conceive and develop technical solutions for the maritime transport of goods and people that are economically and environmentally sound and for the exploitation of ocean and seabed resources (fish, energy, minerals, etc.) and the appropriate use of marine habitats and maritime defence and security systems.

You can take one of the following specialisations:

- **Yacht and Pleasure Craft Design**
  Many of the recent advances in shipbuilding spring from innovations in yacht and racing boat design. In this specialisation students get to know and further their knowledge of the design and construction requirements for these vessels, so that as future professionals they are able to continue innovating in this area.

- **Ocean Energies**
  Many technologies are being developed for obtaining energy from the marine environment that could be primary energy sources in the near future, ranging from offshore wind farms to tidal or wave energy converters. In this specialisation students gain the knowledge they need to understand and develop these systems for harvesting energy, as well as to influence the uptake of these technologies in the future.

**Specialisations**

- Yacht and Pleasure Craft Design
- Ocean Energies

### GENERAL DETAILS

| **Duration and start date** | Two academic years, 120 ECTS credits |
| **Timetable and delivery** | Face-to-face |
| **Fees and grants** | Approximate fees for the master's degree, excluding degree certificate fee, €5,300 (€7,950 for non-EU residents). More information about fees and payment options. More information about grants and loans. |
| **Language of instruction** | Subjects will be taught in Catalan or Spanish, depending on the student's level of comprehension and on the teaching objectives of the master's degree course. |
| **Location** | Barcelona School of Nautical Studies (FNB) |

### ADMISSION
General requirements

Academic requirements for admission to master's degrees

Places
40

Pre-enrolment
Pre-enrolment period open.
How to pre-enrol

Enrolment
How to enrol

Legalisation of foreign documents
All documents issued in non-EU countries must be legalised and bear the corresponding apostille.

DOUBLE-DEGREE AGREEMENTS

With foreign universities
- Master in Naval Architecture and Ocean Engineering, esp. in Ocean Energies
  + Master in Naval Architecture and Marine Engineering of the Ningbo University (China)

PROFESSIONAL OPPORTUNITIES

Professional opportunities
- Ship design and construction.
- Involvement in the leisure industry and the demand for marinas and floating sports complexes.
- Design and construction of floating and underwater industrial complexes and structures.
- Underwater mining.
- Underwater distribution, processing and communications systems.
- Underwater robotics.
- Marine fishing and fish farming.
- Coastal engineering.
- Energy harvesting from wind, waves, currents, thermal gradients, salinity gradients, etc.
- Marine power plants.

Competencies

Generic competencies

Generic competencies are the skills that graduates acquire regardless of the specific course or field of study. The generic competencies established by the UPC are capacity for innovation and entrepreneurship, sustainability and social commitment, knowledge of a foreign language (preferably English), teamwork and proper use of information resources.

ORGANISATION

UPC school
Barcelona School of Nautical Studies (FNB)

Academic coordinator
Xavier Martínez García

Academic calendar
General academic calendar for bachelor’s, master’s and doctoral degrees courses

Academic regulations
Academic regulations for master’s degree courses at the UPC
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<tr>
<th>Subjects</th>
<th>ECTS credits</th>
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