INTERNATIONAL MASTER OF SCIENCE IN ADVANCED DESIGN OF SUSTAINABLE SHIPS AND OFFSHORE STRUCTURES

PROGRAMME JOINTLY OFFERED BY GHENT UNIVERSITY, UNIVERSITY OF ROSTOCK, "DUNAREA DE JOS" UNIVERSITY OF GALATI, ÉCOLE CENTRALE DE NANTES, POLYTECHNICAL UNIVERSITY OF MADRID, UNIVERSITY OF LIÈGE, UNIVERSITY OF LISBOA, INSTITUTO SUPERIOR TÉCNICO (UNIVERSIDADE DE LISBOA)

120 ECTS CREDITS - LANGUAGE: ENGLISH

WHAT

The demand for highly qualified engineers is higher than ever. This is even more true in the globalized maritime and offshore market which is at the dawn of massive challenges and, luckily, opportunities. The energy transition, not only for vessels but also to create offshore energy for land based locations, is but a single but important example.

The combined expertise of the seven core partners of the EMship programme, complemented with the strong background of the associated universities, comes together in this programme with global impact and state-of-the-art insights on the rapid technological evolution in the fields of naval architecture, maritime technology and offshore engineering.

Student will acquire the necessary analytical reasoning, scientific and technical skills and competences to help move the maritime world towards a greener transportation mode and towards a safer and sustainable maritime transportation/navigation. Graduates will be able to meet the growing demand from companies for engineers with up-to-date competences and societal challenges related to global warming: need for energy saving, renewable energy sources, more efficient and less polluting means of transport...

STRUCTURE

The two-year programme consists of four semesters of 30 ECTS each. The first year (2 semesters) is offered at Ghent University, Belgium, and in parallel at Universitatea "Dunărea de Jos" din Galați, Romania. In the second master's year, students can choose from five universities, each with its specific nuance and expertise:

- Universidad Politécnica de Madrid (UPM, Spain): focus on Offshore Wind and Renewable Marine Energy
- University of Rostock (URO, Germany): focus on Shipbuilding, Ship Technology and Ocean Engineering
- Ecole Centrale de Nantes (ECN, France): focus on Ship Hydrodynamics
- University of Liège (ULiège, Belgium): focus on Offshore Structures and Digital Twin
- Instituo Superio Técnico (IST, Portugal): focus on Ship Logistics and Maritime Transport

This mobility structure allows students to gain from the strengths and expertise of the different universities.

EMShip week

Twice during their studies, the students join the EMSHIP week where they meet professors from all the EMSHIP partner universities, industrial partners, alumni and students of the previous/next cohort. This is an opportunity for technical visits (shipyards, manufacturers...), discussions with industrial partners about internships and, for newly graduated students, about job opportunities.

LABOUR MARKET

This programmes prepares students for a leadership and entrepreneurship role in various naval, maritime and ocean engineering sectors. European and worldwide employers active in these sectors require top quality graduates as managers, planners, researchers, designers or advisors, who can make the difference in the design of sustainable ships and offshore structures. The labour market needs highly qualified engineers who have the ability to think through complex issues, who can analyse the structures through various modelling approaches, who are capable of managing projects and programmes, and have well developed leadership and personal skills.

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TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

1 **Na onderzoek van de bekwaamheid van de student om de opleiding te volgen:**

- Bachelor in de ingenieurswetenschappen, afstudeerrichting: elektrotechniek, nevenrichting werktuigkunde
- Bachelor in de ingenieurswetenschappen, afstudeerrichting: werktuigkunde, nevenrichting elektrotechniek
- Bachelor in de ingenieurswetenschappen, afstudeerrichting: werktuigkunde-elektrotechniek
- Bachelor in de ingenieurswetenschappen: werktuigkunde-elektrotechniek

ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

Applicants must hold a bachelor's degree in mechanical engineering, electromechanical engineering, naval architecture, marine technology or a related discipline.

LANGUAGE REQUIREMENTS

Language requirements Dutch: no language requirements

Applicants must provide an English language certificate no more than three and a half years old from the start date of the programme (September), unless applicants are using IELTS, TOEFL, Trinity ISE or PTE, in which case it must be no more than two years old. 1 of the 6 following certificates must be submitted:

- IELTS Academic with a minimum score of 6.5 (with at least 6.0 in each section).
- TOEFL-iBT (internet-based) Certificate (including Home Edition) with a minimum score of 92 (with at least 20 in each section). We do not accept TOEFL MyBest Score to meet our English language requirements.
- Trinity ISE II Certificate with distinctions in all four components.
- Cambridge Certificate in Advanced English (CAE) total 176 with at least 169 in each component.
- Cambridge Certificate of Proficiency in English (CPE) total 176 with at least 169 in each component.
- PTE Academic 62 overall with at least 59 in each component.

Special Note on exemptions

Exemptions always need to be requested and approved by the EMship Selection Committee. It is not possible to be exempt just because applicants have studied a Bachelor degree in English.

PRACTICAL INFORMATION

Study programme

studiekiezer.ugent.be/international-master-in-advanced-design-of-sustainable-ships-and-offshore-structures-en/programma

Information sessions

EVOLV

evolv.gent/en/students/further-studies

Enrolling institution

Ghent University, University of Lisboa, École centrale de Nantes, University of Rostock, "Dunarea de Jos" University of Galati, Polytechnical University of Madrid, University of Liège

Information on enrolment at Ghent University.

Application Deadline (for International degree students)

Scholarship applications need to be submitted before **1 February**. Applying after 31 January is only possible for students who are able to come on a self-funded basis!
APPLYING ON A SELF-FUNDED BASIS:

- Self-funded applicants who need a visa: before **1 April**
- Self-funded applicants who don't need a visa: before **1 June**

Tuition fee

More information is to be found on: www.ugent.be/tuitionfee

Contact
http://emship.eu/contact/

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FACULTY OF ENGINEERING AND ARCHITECTURE

2026-27

GHENT UNIVERSITY

Printed on 22 May 2026