

EMSHIP KEY POINTS

- > An interdisciplinary combination of technical, scientific and management skills obtained through a worldwide unique qualification programme supported by six leading European universities, offering excellent career opportunities to graduates.
- > Four different specializations offered during the third semester, after a one-year common core.
- > The opportunity to experience a variety of academic and cultural environments through a mobility scheme covering three different countries.
- > An international network of associated universities and industries.

LANGUAGE

All the lectures will be in English.

French, Italian, German, Romanian and Polish language courses will be available.

A four weeks compact Course of English will be available at the University of Liège before the start of the first semester.

SCHOLARSHIPS

Excellent applicants from non European countries as well as European countries will be granted scholarships covering the tuition fees, travel to and from Europe and cost of monthly living allowance of € 1.000 for 18 months.

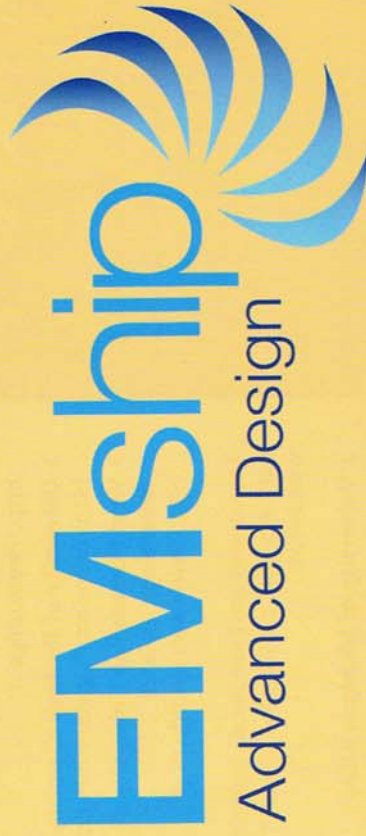
TUITION FEES

For the cycle of 90 credits (18 months):
€ 9.450 for non European students
€ 4.950 for EU Students

APPLICATION

see <http://www.emship.eu>
and follow the application procedure

ERASMUS MUNDUS MASTER OF ENGINEERING INTEGRATED ADVANCED SHIP DESIGN



ERASMUS MUNDUS
MASTER COURSE
WWW.EMSHIP.EU



CONTACT
PROFESSOR PHILIPPE RIGO
ANAST -NAVAL ARCHITECTURE
UNIVERSITY OF LIÈGE
1 CHEMIN DES CHEVREUILS, BS2/3
4000 LIEGE - BELGIUM
EMAIL : INFO@EMSHIP.ORG
TEL: +32 4 366 93 66



PRESENTATION OF EMSHIP

The objective of the EMship Master Course is to provide an outstanding university program in Naval Architecture, Ship Design and Shipbuilding through a 1.5 year - 90 ECTS Credits - Master Course.

This program is supported by the European Commission under the Erasmus Mundus funding scheme.



ADMISSION CRITERIA

EMship directly relates to the future needs of the European and international marine industry.

The EMship degree program has been developed specially for:

- > Students holding an engineering master degree (300 Credits) seeking for an additional specialisation in Ship Design
- > Engineering officers with 3-5 years sea service planning a career onshore.
- > Students seeking complementary education in deep sea transport, mega/motor Yachts, sailing pleasure crafts but also in safer and cleaner waterway.
- > Engineers searching for advanced education in hydrodynamics in ship design, ship production, CAD, information technology and ship structures.

STUDY PROGRAM

The mobility scheme involves 3 semesters in 3 countries (within a selection of 6 countries):

The first and second semesters (60 credits) are dedicated to general lectures in Ship Design:

1 st semester: University of Liège (Belgium) Ship design, theory, structures & production 25 ECTS credits	2 nd semester: Ecole Centrale de Nantes (France) Ship hydrodynamics 25 ECTS credits	ECTS	Modules	ECTS
Ship theory (static, dynamic and propulsion)	Water wave and sea state models for ship design	5		
Ship structures and ship production	Seakeeping: theory & numerical modeling	5		
Ship project & ship design	CFD for ship hydrodynamics	6		
Electricity, ship equipment & diesel engines	Multi-objective optimisation for ship design	4		
Design of high speed vessels	Experimental ship hydrodynamics	5		
End of 2nd semester: Ecole Centrale de Nantes (France), 10 ECTS Credits				
Initiation of research & développement, preparation to the final project and technical visits				

The third semester (30 credits) is dedicated to advanced lectures:

University of Galati (Romania) Maneuvering & propulsion 10 ECTS credits	University of Genoa (Italy) Sailing & motor yachts 10 ECTS credits	ECTS	Modules	ECTS
Ship maneuvering	Theory and design of motor yachts	5		
Ship propulsion	Theory and design of sailing yachts	5		
West Pomeranian University of Technology (Poland)				
University of Rostock (Germany) CAD, Ship production, information technology 10 ECTS credits	Advanced ship structures 10 ECTS credits	ECTS	Modules	ECTS
Information technology in ship design and production	Advanced ship structural mechanics	5		
Ship production	Advanced ship structural design and technology	5		

MASTER THESIS AND INTERNSHIP, 20 ECTS credits
Internship and master thesis with industry, coordinated by the university visited during the third semester

EMship Graduates will be awarded a Double Master Degree from University of Liège (Belgium) and Ecole Centrale de Nantes (France) and a diploma from the visited university for the third semester.

CONSORTIUM

The consortium is composed of six European institutions with a long standing tradition in the diverse fields of Ship Design and Marine engineering:

- > **University of Liège** (Belgium)
coordinator of the program
<http://www.anast.ulg.ac.be>
- > **Ecole Centrale de Nantes** (France)
<http://www.ec-nantes.fr>
- > **Dunarea de Jos University of Galati** (Romania)
<http://www.ugal.ro>
- > **University of Genoa** (Italy)
<http://www.unige.it>
- > **University of Rostock** (Germany)
<http://www.schiffbau Forschung.de>
- > **West Pomeranian University of Technology** (Poland)
<http://www.wtm.zut.edu.pl>

The consortium includes six associated partners from prestigious universities worldwide:

- > **University of Michigan** (USA)
- > **University of Osaka** (Japan)
- > **Federal University of Amazon** (Brazil)
- > **VIMARU Maritime University** (Vietnam)
- > **University of New South Wales** (Australia)
- > **University of Sciences and Technology of Oran** (Algeria)

A Strategic Advisory Board consisting of high level decision makers of leading European maritime companies and representatives from the associated universities worldwide will actively contribute to the continuous quality improvement.