**EMship+ key points**

- An interdisciplinary combination of technical, scientific and management skills obtained through a worldwide unique qualification program supported by nine leading universities, offering a double degree Master diploma and excellent career opportunities to graduates.

- Three different specializations offered during the second year, after a one-year common core.

- The opportunity to experience a variety of academic and cultural environments through a mobility scheme covering two or three different countries.

- An international network of associated universities and industrial partners.

**Tuition fees (with health insurance)**

- 8,500 € per year for Non-EU students

- 4,500 € per year for EU-students.

**Scholarships**

Scholarships from European Union (EACEA) are available covering living expenses (1000 €/month), travel expenses, health insurance and full tuition fees.

**Language**

- All the lectures are in English.

- French, German and Spanish language courses are available in corresponding 2-year universities.

**Job prospects**

- Ship and marine structures design

- Numerical simulation for fluids and structures

- Marine renewable energies

- Building and maintenance in shipyards

- Safety and sustainability management

- ...

**Application**

Online on [http://www.emship.eu](http://www.emship.eu)
The EMship+ Master Course provides an outstanding university program in Naval Architecture, Ship and Offshore Design in 2 years -120 ECTS Credits - Master Course

Admission criteria
Some pre-requisites in mathematics, physics, solid mechanics, materials science, fluid mechanics, dynamics of mechanical systems and computer programming are required.

Some candidates with specific CVs are also invited to apply:

Engineers searching for advanced education in:
- Hydrodynamic and structural analyses of ships and offshore structures,
- CAD and information technology,
- Shipyard and production technology,
- Commercial ships, mega/motor yachts, sailing pleasure crafts, ...,
- Offshore Wind Energy (Supply vessels, Offshore wind turbines, FOWT, ...),
- Ocean Engineering (Oil and Gas technology)

The EMship+ program is supported by the WEGEMT organisation (www.wegemt.org).

The consortium is composed of nine European universities with a strong expertise in the diverse fields of Marine Engineering:

> University of Liège (Belgium) coordinator of the program http://www.anast.ulg.ac.be
> University of Rostock (Germany) http://www.schiffbauforschung.de
> Politecnico di Milano (UPM) http://www.upm.es/internacional
> Centrale Nantes (France) http://www.ec-nantes.fr
> West Pomeranian University of Technology (Poland) http://www.wtm.zut.edu.pl
> Dunarea de Jos University of Galati (Romania) http://www.ugal.ro
> ICAM – Institut Catholique d’Arts et Métiers (France)
> University of Genova (Italy) http://www.unige.it
> Southampton Solent University (UK) http://www.solent.ac.uk/

The consortium includes seven associated partners from prestigious universities worldwide:

> University of Michigan (USA)
> University of Osaka (Japan)
> Istanbul Technical University (Turkey)
> Federal University of Rio de Janeiro (Brasil)
> Pusan National University (South Korea)
> 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 actively contribute to the total quality management.

The EMship+ program is supported by the WEGEMT organisation (www.wegemt.org).

Study Program

The mobility scheme involves 2 years in 2 (or 3) countries:

The first year (60 credits) is dedicated to general lectures in mechanical engineering (1st semester) and in Advanced Ship Design (2nd semester) in University of Liège.

<table>
<thead>
<tr>
<th>Study Program</th>
<th>1st YEAR University of Liège (Belgium)</th>
<th>2nd YEAR University of Liège (Belgium)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory Modules</td>
<td>30 ECTS</td>
<td>Mandatory Modules</td>
</tr>
<tr>
<td>Manufacturing Process</td>
<td>5</td>
<td>Integrated design project of ships, small crafts and high speed vessels</td>
</tr>
<tr>
<td>Theory of Vibration</td>
<td>5</td>
<td>Ship theory: statics and dynamics</td>
</tr>
<tr>
<td>Materials selection</td>
<td>5</td>
<td>Ship &amp; offshore structures</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>5</td>
<td>Ship equipment &amp; propulsion systems</td>
</tr>
<tr>
<td>Electives modules in computational mechanics</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

The second year is dedicated to advanced lectures in one of the three universities below (1st semester, 30 ECTS) and Master Thesis & Internship (2nd semester, 30 ECTS)

<table>
<thead>
<tr>
<th>Study Program</th>
<th>University of Rostock (Germany)</th>
<th>Centrale Nantes (France)</th>
<th>Polytechnic University of Madrid (Spain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modules (12 to be selected among 6) ECTS</td>
<td>Modules (12 to be selected among 6) ECTS</td>
<td>Modules (12 to be selected among 6) ECTS</td>
<td></td>
</tr>
<tr>
<td>Theory and Design of Floating and Founded Offshore Systems</td>
<td>6</td>
<td>General concepts of Hydrodynamics</td>
<td>4</td>
</tr>
<tr>
<td>Selected Topics of the Analysis of Marine Structures</td>
<td>6</td>
<td>Water Waves and Sea States Modelling</td>
<td>4</td>
</tr>
<tr>
<td>Mathematical Models in Ship Theory</td>
<td>6</td>
<td>Waves-structure Interactions</td>
<td>4</td>
</tr>
<tr>
<td>IT in Ship Design and Production</td>
<td>6</td>
<td>Numerical Hydrodynamics</td>
<td>5</td>
</tr>
<tr>
<td>Safety of Ships under Damaged Conditions in Waves</td>
<td>6</td>
<td>Experimental Hydrodynamics</td>
<td>4</td>
</tr>
<tr>
<td>Ocean Research Technology</td>
<td>6</td>
<td>Naval Engineering</td>
<td>5</td>
</tr>
<tr>
<td>Team project (mandatory)</td>
<td>6</td>
<td>Naval Engineering</td>
<td>5</td>
</tr>
<tr>
<td>MASTER THESIS and INTERNSHIP: 30 ECTS credits</td>
<td>Team project (mandatory)</td>
<td>Naval Engineering</td>
<td>5</td>
</tr>
<tr>
<td>They are prepared under the supervision of the university where students are enrolled for the 2nd year.</td>
<td>Ocean Research Technology</td>
<td>Ship Maneuuvrability</td>
<td>Structural Analysis of Offshore Platforms</td>
</tr>
<tr>
<td>They can be undertaken in companies, shipyards or in universities from the EMSHIP+ consortium and world-recognized universities.</td>
<td>Ocean Research Technology</td>
<td>Multi-objective Optimization</td>
<td>Structural Analysis of Offshore Platforms</td>
</tr>
<tr>
<td>EMSHIP graduates will be awarded a double degree from University of Liège and the relevant 2nd year university.</td>
<td>Ocean Research Technology</td>
<td>CFD Tools for Ship Simulation</td>
<td>Structural Analysis of Offshore Platforms</td>
</tr>
</tbody>
</table>

Admission criteria
Some pre-requisites in mathematics, physics, solid mechanics, materials science, fluid mechanics, dynamics of mechanical systems and computer programming are required.

Some candidates with specific CVs are also invited to apply:

Engineers searching for advanced education in:
- Hydrodynamic and structural analyses of ships and offshore structures,
- CAD and information technology,
- Shipyard and production technology,
- Commercial ships, mega/motor yachts, sailing pleasure crafts, ...
- Offshore Wind Energy (Supply vessels, Offshore wind turbines, FOWT, ...),
- Ocean Engineering (Oil and Gas technology)

The consortium is composed of nine European universities with a strong expertise in the diverse fields of Marine Engineering:

> University of Liège (Belgium) coordinator of the program http://www.anast.ulg.ac.be
> University of Rostock (Germany) http://www.schiffbauforschung.de
> Politecnico di Milano (UPM) http://www.upm.es/internacional
> Centrale Nantes (France) http://www.ec-nantes.fr
> West Pomeranian University of Technology (Poland) http://www.wtm.zut.edu.pl
> Dunarea de Jos University of Galati (Romania) http://www.ugal.ro
> ICAM – Institut Catholique d’Arts et Métiers (France)
> University of Genova (Italy) http://www.unige.it
> Southampton Solent University (UK) http://www.solent.ac.uk/

The consortium includes seven associated partners from prestigious universities worldwide:

> University of Michigan (USA)
> University of Osaka (Japan)
> Istanbul Technical University (Turkey)
> Federal University of Rio de Janeiro (Brasil)
> Pusan National University (South Korea)
> 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 actively contribute to the total quality management.

The EMship+ program is supported by the WEGEMT organisation (www.wegemt.org).