IS THE SEA YOUR FUTURE?

ADVANCED MASTER IN "ADVANCED SKILLS IN SAFETY, ENVIRONMENT AND SECURITY AT SEA"

Deadline for application: 23rd October 2017

The Advanced Master (AM) is an English advanced technical educational path for European graduated students or working professionals who are involved in the design and production phases of merchant vessels and offshore plants.

Are you a new graduated student?

AM fills the gap between theoretical knowledge given by Universities and industry performance practical requests. You will be able to answer at maritime labour market needs related to high skilled and technical competences. After the frontal lessons you will have the opportunity to follow an internship in one of the sectors' companies.

Are you already working in the maritime sector?

AM increases the level of your competence on issues and technologies related to the safety and security of naval vessels and marine environment, through acquiring skills that will complete your professional practice, letting you move ahead in your career. As employed students your internship will be done directly in your company, in order to exploit your new competencies.

DURATION: January 2018 - June 2018 (frontal lessons)
June 2018 – December 2018 (internship)

PLACE: University of Trieste (Italy)

FEE&SCHOLARSHIP: Master's fee is €5.016,00. The first 10 students in the merit ranking will receive a monthly lump sum reimbursement for a total amount of:

- €10.200,00 for non-employed students
- €5.100,00 for employed students

STRUCTURE:

Frontal lessons: Lessons' timetable foresees **2 weeks of full time lessons and 2 weeks of break per month** for a total of 520 hours, in order to allow employed students to proceed with their working duties. Lessons will be taught by leading Italian and international academics and industry experts. Moreover, during this period students will attend specific study visits in Europe.

Internship: **7 months' internship** in European companies operating in the maritime sector where you will put into practice your acquired knowledge. **Employed students will perform their internship back at their company**, so as to exploit their new competencies.

QUALIFICATION: *Master Universitario di II livello* – Level 8 of the European Framework of Qualifications

APPLICATION AND FURTHER INFORMATION:
www.assess-project.com

1.	**Safety Basics**
1.1	Basic instruments used in ship design
1.2	Electrical power system
1.3	Concepts related to dependability and survivability
2.	**Overview of the Marine Regulatory framework and the Maritime Industry with specific contribution from Industry**
2.1	Overview of the Marine Industry 1
2.2	Overview of the Marine Industry 2
2.3	Overview of the Marine Industry 3
2.4	Overview of the Marine Regulatory Framework
2.5	Overview of the Ship Design and Building Process
2.6	Maritime Law
3.	**Fire Protection**
3.1	Protection Theory
3.2	Detection and Extinguishing
3.3	Certification Theory
3.4	Project Workshop on Pax Ships
4.	**Evacuation Process**
4.1	Rules framework
4.2	Life Saving Appliances
4.3	Evacuation analyses
5.	**Passenger Ships Specifics**
5.1	Safe Return to Port-part I
5.2	Alternative Design
5.3	Failure Mode and Effect Analysis
5.4	Safe Return to Port-part II
5.5	Risk Based Design: Concept, Process and Associated Techniques
6.	**Offshore Units, Special Ships and Crafts**
6.1	Offshore units
6.2	Passenger yachts
6.3	Small and large yachts
6.4	Special vessels
7.	**Environmental requirements and energy efficiency via simulation-based hull-form design and optimization techniques**
7.1	Fuel consumption optimization via weather routing
7.2	Simulation-based Design Optimization considering environmental and energy efficiency requirements
7.3	Deterministic and Stochastic Simulation-based Design Optimization Techniques and Applications - part I
7.4	Deterministic and Stochastic Simulation-based Design Optimization Techniques and Applications – part II
8.	**Scientific studies on environmental impacts including noise and acoustic**
8.1	The waste management on ships
8.2	Shipping noise and its impact on the marine environment
8.3	Building the blue growth knowledge potential: from marine data management to ecological modelling and hazards monitoring
9.	**Alternative Fuels and Hybrid Propulsion**
9.1	Fuels and power plants
9.2	Energy storage and recovery
9.3	Engine safety principles (SOLAS) + Emission Control principles MARPOL Annex VI
9.4	IGC and IGF code: applicability to engine manufacturer
9.5	Alternative Fuels
9.6	Manufacturing company and processes overview
10.	**Operational Safety and Security**
10.1	Cybersecurity 1
10.2	Cybersecurity 2
10.3	The Management of Safety and Security
10.4	Principle of decent work at sea. Maritime Labour Convention MLC 2006
10.5	Cybersecurity-Marine Application and Regulatory Framework
10.6	Operations in extreme environmental conditions: Cold Operations (Polar Code) and Extreme Events
11.	**PM Techniques and Soft Skills**
11.1	Projects, Organizations and Processes of Project Management
11.2	Managing integration and content of project
11.3	Times management and costs of the project
11.4	Procurement and risk management, and close-out of the project
11.5	Practical application of PM techniques and soft skills 1
11.6	Practical application of PM techniques and soft skills 2

In collaboration with:

ASSESS project is co-funded
By the European Maritime and Fisheries