

# Marine Technology Design, Production & Operation

## MSc Programme



Shipping is changing; digitization and an energy revolution are forcing ship owners and yards to innovate their business. The group Ship Design, Production and Operation is working on these challenges: researching and developing novel design methodologies, innovative production methods and algorithms for optimising your design or logistical chain. Our research is our education, giving future engineers the knowledge and skills to handle challenges in the design, construction and operations of ships.

<b>Degree</b>	Master of Science in Marine Technology
<b>Starts</b>	September
<b>Credits</b>	120 ECTS, 24 months
<b>Language</b>	English
<b>Application deadline</b>	April 1st: international students July 1st: Dutch degree
<b>Tuition fee</b>	€ 18.750 (non EU) € 2.083 (EU)
<b>Scholarships</b>	<a href="https://www.scholarships.tudelft.nl">scholarships.tudelft.nl</a>

### Programme

The Master's programme Marine Technology offers two tracks: Science (MT Sc) and Design, Production and Operation (MT DPO). The DPO track provides a solid basis for working in industry as well as in research institutes. Graduates are found everywhere, improving not only the ships and other maritime crafts but also the process (be it production, design or operations) and working as expert or integrator in mixed teams. The required attitude and knowledge are developed in a challenging and personally tailored master program, where integration and

application of knowledge, both from the bachelor and acquired in the master, plays a key role. Next to this the master has an international orientation, voiced by good possibilities to do a part of your second year abroad. A worthwhile experience in this time of globalisation.

### Focus areas

Within the DPO track, you can graduate within four different research groups, each with several faculty members, who all have their own in-depth specialty. So there is a lot to choose from and you are able to combine in-depth

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First Year				Second Year	
For all MT		For MT-DPO		For all MT	
5 ECTS	Motions & Loading of Structures in Waves	5 ECTS	Quantative Methods for Logistics	15 ECTS	Electives
5 ECTS	Structural Design and Analysis	5 ECTS	Risk in Maritime Asset & Project Management	15 ECTS	Literature Study
5 ECTS	Design of Complex Specials	25 ECTS	Electives	30 ECTS	Master Thesis
5 ECTS	Mechatronics in MT		Student Colloquia		
5 ECTS	Maritime Finance, Business and Law				
	Ethics course (select one)				

study of maritime technical topics with logistics, technical marketing, management, safety and/ or sustainability subjects. Each direction has its own focus, being Ship Design, Production, Marine Engineering or Shipping Management. However there are no clear boundaries between the subjects of each group. In many cases faculty members from two groups will work together on a research project, all bringing their unique knowledge to the table. Students are challenged to use the master courses to find out what topics really motivate them, creating their own specialization and thesis project around their interests.

## Research facilities

The DPO Track is offered by the section Ship Design, Production and Operation. This section has an extensive research profile, both national and international, which is exemplified by the numerous PhD students that are working at the section and at external companies. The section has a flume tank and a virtual laboratory of advanced simulations and tools often used or improved in MSc thesis projects carried out by our students.

## Graduation projects

Graduation is often performed at the interface between science and industry. The project can be performed at the University itself, making use of the network of your supervisor to understand the practical side of a theoretical problem. Or at a company, identifying suitable theories for practical problems, with the help of your TUDelft supervisor.

## Career prospects

Driven for a large part by the success of the maritime and offshore industry, job prospects for graduates with shipyards such as Damen and IHC Merwede, as well as the Dutch Ministry of Defence are excellent. A job at contractors like SBM, Bluewater, Heerema and Allseas is also an often chosen option. Furthermore, MT graduates find outstanding opportunities with firms in many other fields as well, including (heavy) cargo transport and salvage firms, engineering companies, research institutes, banks and classifications societies. Others continue at TU Delft with their studies, leading to a PhD, or they pursue a PhD while working for a company in industry.



5<sup>th</sup>

Marine/Ocean Engineering programme in ARWU ranking



30%

international students

## Career perspective



85%

has a job immediately after graduating



95%

within 3 months



100%

within 6 months



95%

works within the industry