

Naval architecture

Apply now

WHAT IS NAVAL ARCHITECTURE?

Hamburg has the third-largest port in Europe and you can see here everything that you can learn as a naval architect. Ships are the most important mode of transport. Ninety-five percent of world trade is shipped via waterways, which is why ships are not just a mode of transportation but a backbone of the global economy. There is much the same amount of know-how in a container ship as in an Airbus plane. Construction of modern types of vessel such as passenger ships, ferries, container ships, mega-yachts or naval vessels is demanding and requires a high level of technical expertise. You had best start right away designing on a small scale. In the TU Hamburg's pedal boat team you will help to develop fast and resilient boats that win races in competition with other universities: <http://www.hf-latte.de>. As a naval architect you will also deal with water, the medium in which ships operate. On this page of the Institute for Fluid Dynamics and Ship Theory at the TU Hamburg you can see how flow is simulated in 3D: <https://www.tuhh.de/elbe/home.html>.

HOW CAN I SHAPE THE FUTURE WITH NAVAL ARCHITECTURE?

Without naval architecture the world is inconceivable. As history shows, nations that were better than others at building ships have guided the destiny of the planet. In the future, eco-friendly, climate-neutral drives will determine shipbuilding. The potential for climate protection is enormous. Implementing the energy revolution in naval architecture will be very important for shipping companies and

shipyards, for the die large supplier industries and in the final analysis for each and every one of us. It is a big challenge and a challenge that you can take on at the TU Hamburg. Stringent environmental regulations and larger ships that are increasingly complex in construction require good engineers who engage in the adventure of naval architecture.

WHAT DO I LEARN ON THE COURSE AND WHERE DO I LATER FIND A JOB?

Study naval architecture at the TU Hamburg and you will learn how to design and build ships. You will know why a ship floats and what holds it together. What, for example, a bulbous bow is and what it is used for. You will learn everything that matters about weather and water and how a ship must be built to withstand extreme conditions. You will learn all about marine engineering. Economic aspects are covered too: you need to know how to implement customers' and owners' wishes. As a naval architect you are a wide-ranging and can work not only at shipyards but also for suppliers, in the offshore industry and plant construction. As a specialist your earning opportunities are very good.

HOW IS THE PROGRAM STRUCTURED?

The first three semesters focus on the basics of mathematics, mechanics and design studies. In the three major semesters you will learn about ship structures, hydrostatics and fluid mechanics.

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Naval architecture at a Glance

DURATION OF STUDY:
6 SEMESTERS, FULL-TIME
DEGREE: BACHELOR OF SCIENCE (B.SC.)

Naval architecture is the right study program for you if you were already devouring books as a child about the different kinds of ships and expeditions sailing the world's oceans, if you liked math and physics at school and had good grades in them and if you are interested now in shipping and maritime industry. Hamburg University of Technology is the only university in Germany to offer a separate B.Sc. program in naval architecture.

→ [Internship regulations](#)

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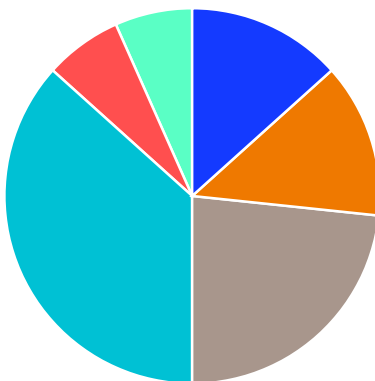
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FURTHER STUDIES?

You can go on to study for the following master's degrees:

→ [Naval Architecture and Ocean Engineering \(M.Sc.\)](#)

→ [Joint Masters in Ship and Offshore Technology \(a DAAD-funded, internationally oriented study program taught mainly in English\)](#)



- Technical subjects
- Non-technical subjects
- Thesis
- Mechanics
- Mathematics
- Naval architecture