Aerospace Engineering

How do you make an aircraft climate neutral? How do you design satellites that can monitor climate change? How will you dispose of them when they fail? How can you make aircraft quieter? These are questions you will encounter during the Aerospace Engineering bachelor’s programme. Are you ready to become a multidisciplinary engineer who makes a change in society, within the aerospace sector as well as in many other industries?

What does the programme look like?
The programme starts off with a series of introductory courses in the field of Aerospace Engineering, as well as general engineering topics such as calculus and mechanics. Quickly you will realise that every course builds upon the foundations provided by previous courses, which requires you to really keep up the pace in order to be successful. Lectures are taught by experienced lecturers and professors, who use examples to illustrate the importance of their disciplines. Extensive group projects are employed to integrate the skills and knowledge you acquired during lectures. During the projects you will solve design challenges, based on real-life cases, such as ultra-efficient new aircraft designs and drone swarms. You learn how to work in international teams, think outside the box and communicate effectively.

You will study alongside more than 2500 BSc and MSc students at the Faculty of Aerospace Engineering. The Faculty is unique in Europe and enjoys worldwide acclaim. Aside from the theoretical part of the BSc programme, the Faculty is able to offer you access to state-of-the-art facilities over the course of several practicals, including an advanced flight simulator, our own jet aircraft as a flying classroom, subsonic, supersonic and hypersonic wind tunnels and a large laboratory for the development, manufacturing and testing of structures and materials.
What do you learn?
From the very first day of your studies, you will be able to dive into the specifics of aerospace engineering. While you are also taught the basic engineering sciences such as mechanics and calculus, the programme focuses on how to apply these engineering disciplines to aerospace design problems as soon as possible.

In the first year this occurs mainly in the aerospace design projects, which will take up a significant portion of your weekly schedule.

In the second year, you will learn more about designing systems and processing measurement data. A series of intensive mathematics courses will provide you with the tools required to tackle the aerospace courses. Topics that were discussed briefly in the first year are now explored in depth, providing you with a solid theoretical background in subjects such as aerodynamics and orbital mechanics. The aerodynamics courses are supplemented by two wind tunnel practicales.

The first semester of the third year allows you to broaden the scope of your education by means of a minor programme. You can choose to do this at other TU Delft faculties, at other universities in the Netherlands or at one of our many partner universities abroad.

Your last semester consists of the final BSc courses as well as a flight practical in the faculty’s flying classroom, a Cessna Citation aircraft, which you will use to carry out measurements in flight. Everyone finishes their third year with the Design Synthesis Exercise (DSE). During a ten-week period, you will work with a team of students on an original and relevant design assignment, in many cases commissioned by aerospace companies or research organisations.

What is the profile of an Aerospace Engineering student?
• Good at acquiring new maths and physics skills at a rapid pace
• Solving multidisciplinary design problems with a group of fellow students
• Able to study in a very international ly-oriented environment with English as the main language

Career prospects
• 88% of MSc graduates find a job they like within 6 months after graduating
• 40% become employed in the Aerospace sector
• 60% find a job within other engineering sectors, consultancy or management

MSc tracks
• Aerodynamics & Wind Energy
• Aerospace Structures & Materials
• Control & Operations
• Flight Performance & Propulsion
• Space Flight
• European Wind Energy Master

Number of BSc students
1323

Number of MSc students
1263

THE Ranking
4th place for Engineering & Technology

42% International BSc students

100% English-language BSc & MSc programmes

43% International MSc students

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