Flight to excellence

How do you ensure that a satellite is launched into orbit around the earth or how do you design a micro-aircraft that can save people's lives? While studying Aerospace Engineering you will learn all of this and much more. In order to design, build and work with aircraft or satellites, you need to have knowledge of a range of different disciplines and know how to combine them.

You come into contact with technologies and materials from the aerospace industry every day. GPS tracking and weather forecasting are both made possible by the presence of satellites in space. The mirrors on a lorry or car have been designed in such a way as to generate as little resistance as possible. And just try to imagine how much food is transported by air every single day. More than 2,500 Bachelor's and Master's students study at the faculty of Aerospace Engineering, a third of them are international students. The faculty is unique in Europe and enjoys worldwide acclaim. We have state-of-the-art facilities at our disposal, including an advanced flight simulator, our own aircraft as a flying classroom, a cleanroom to develop our own satellites, subsonic, supersonic and hypersonic wind tunnels and a large laboratory for the development, manufacturing and testing of materials and structures.

What does the study programme involve?
From the very first day of studying at our faculty, you will be involved in aerospace engineering. The aircraft, rocket and satellite are used as study objects to teach you basic technical knowledge. As the programme progresses, the emphasis shifts gradually from theory to application. Each academic year is divided into four ten week periods. This means that you will have examinations four times a year. Lectures alternate with seminars, laboratory courses, and projects where you put the knowledge you have acquired into practice. During project education, the focus is on learning to design as a team. Together with your team, you will work hard to solve a problem and achieve an optimum design.

First year
Introduction to the field
In the first year, you will be taught the basic techniques of design. You will also spend a relatively large amount of your time on mathematics and physics modules. You will be taught the necessary theory by means of various modes of instruction under the supervision of lecturers and senior students. From the first year onwards, the programme is taught exclusively in English.
Second year

Exploring the field in greater depth

In the second and third year, the focus of education increasingly shifts from basic theory to courses in aerospace engineering. The basic knowledge acquired in the first year will be further enhanced and applied. In the second year, the lectures will be supplemented to a greater extent by project education and laboratory courses. You will learn to design systems and to process measurement data.

‘The emphasis shifts gradually from theory to application’

Third year

Free curriculum and graduation

From the first semester of the third year, the study programme is no longer identical for every student. You will choose a minor subject at TU Delft or elsewhere. During this period, you can also go on an exchange to a university abroad.

The second semester focuses on the final stage in the design process: verification and validation. For this you will join five other students in the Cessna Citation II, a.k.a. the faculty’s flying classroom, which you will use to carry out measurements in the air.

Everyone completes 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 current design assignment, in many cases commissioned by industries, institutes or scientists. This assignment can vary from the design of an aircraft to the planning of a Mars mission. You will complete your DSE with a presentation to a panel of judges.
## Curriculum (indicative)

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For more information about all modules: [www.studyguide.tudelft.nl](http://www.studyguide.tudelft.nl)
Do you have what it takes to be an Aerospace Engineering student?
Do you enjoy testing your limits and achieving breakthroughs? Are you interested in mathematics and physics and do you expect to achieve an average final mark in your final exam of at least 7 out of 10 for these subjects? Do you enjoy working with others? Do you have enough self-discipline to work and plan independently? In that case, Aerospace Engineering might be the programme for you.

What can you do after your Bachelor’s degree programme?
Master’s degree programmes
After completing the Bachelor, you can transfer to the two-year Master’s programme in Aerospace Engineering or the EWEM (European Wind Energy Master), but you will also be welcome at countless other Master’s degree programmes in the Netherlands and abroad. In the Master’s programme, you will explore an area of expertise in aerospace engineering in greater depth. You will also conduct independent graduation research in the same area. During the Master’s degree programme in Aerospace Engineering you can choose to specialise in various different fields, from Aerodynamics to Space Flight.

‘During a ten-week period you will work with a team of students on an original and topical design assignment’
Career prospects

Your career profile
As many as 88% of MSc graduates find a suitable job within six months. Approximately 40% of these graduates actually find employment in companies within the aerospace engineering industries. Examples of such technical companies include Airbus, NASA, KLM, Schiphol, Dutch Space or Boeing. The remaining graduates find engineering jobs at companies in other sectors, such as Shell, Siemens, BMW, Philips, TNO and Ferrari. In addition, many graduates also work for consultancies, such as McKinsey & Company and the Boston Consulting Group, or banks like ING and Goldman Sachs. All of these companies are always on the look-out for people with advanced analytical skills and have had good experience with aerospace engineers.

‘Delft was the best choice for me’

‘During my first year at the Faculty of Aerospace Engineering, I learned a lot about space as well as aviation and both are becoming more fascinating every day. The great thing in Delft is that during different projects, such as designing a wing box or a spacecraft mission to Mars, I already get to use the knowledge I gained in lectures and can actually apply it. This turns the plain theory of certain subjects into a lot more fun and connects all the different subjects. Since the programme is very broad, it also allows joining one of the many dream teams of the university, such as the solarboat or the DUT racing car. Another nice aspect is the international atmosphere at the university, especially at the Faculty of Aerospace Engineering. You get to meet and know many different cultures and people. Students also have the possibility to do part of their study abroad, since the faculty has established a broad international network. An opportunity I will definitely not miss out on!’

Isa Ruchser
3rd year student

‘As many as 88% of MSc graduates find a suitable job within six months’
Come and see for yourself
If you would like to know more about this Bachelor’s degree programme, why not come along to Delft? For example, you can attend one of the following activities:

Open Days – during these days, all of the degree programmes showcase what they have to offer. [www.lr.tudelft.nl/opendays](http://www.lr.tudelft.nl/opendays)

Numerus Clausus
There is a cap on student intake for the Bachelor’s degree programme in Aerospace Engineering. The available places are allocated by means of a selection procedure. Because the bachelor programme has a limited capacity, there is a selection procedure that aims to ensure a good match between the student and the educational programme. Every applicant participate in this procedure, in which you need to take a 3-hour online course on Aerospace Engineering, complete a motivation questionnaire, study first year material, take an Academic Test (on Mathematics, Physics, and the studied first year material), and write a self-reflection. You need to take all these steps in order to be able to start the bachelor programme. Please check for the latest information: [www.ae.tudelft.nl/admissionrequirements](http://www.ae.tudelft.nl/admissionrequirements)

Admission requirements
You will be directly admitted to the selection procedure when you are in possession of a Dutch VWO diploma with a N&T profile. If you have a N&G profile, you must have Mathematics B and Physics in your curriculum. The subjects mathematics D and NLT are not obligatory, but are recommended. The admission requirements for students who don’t have a Dutch diploma can be found on our website: [www.ae.tudelft.nl/admissionrequirements](http://www.ae.tudelft.nl/admissionrequirements)

Binding recommendation on continuation of studies (BSA)
If you study at TU Delft, you will be subject to the binding recommendation on the continuation of studies (BSA). This means that you must obtain at least 45 of the 60 ECTS credits available in the first year. If you do not meet this criteria, you cannot continue the programme, and will not be able to enrol for Aerospace Engineering for the next four years. [www.bsa.tudelft.nl](http://www.bsa.tudelft.nl)

Delft Honours Programme
The Delft Honours Programme is intended for students in search of an additional challenge who are capable of achieving more than the standard teaching programme. This is in addition to the regular study programme. It gives you the opportunity to acquire additional knowledge in or outside your field of specialisation, to work on your personal development and also to collaborate with students of other programmes. [www.honours.tudelft.nl](http://www.honours.tudelft.nl)

Digital brochures
View this and other brochures online [www.brochures.tudelft.nl](http://www.brochures.tudelft.nl)

Virtual campus
If you would like to explore our campus, take a look at: [www.campus.tudelft.nl](http://www.campus.tudelft.nl)

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