WHAT IS A HTHT MINOR?
A HTHT-minor fits within the UT profile: High Tech, Human Touch. The minor is offered in English and accessible for both national and international students. The goal of the HTHT-minor is to illuminate specific societal themes for which the UT develops High Tech Human Touch solutions. These solutions are created by conducting high-quality research. Both the form and the content of the minors are High Tech Human Touch (multidisciplinary) and are profiling for the student.

The UT offers most HTHT-minors in a coherent package of 2 (30 EC). There are also HTHT minors of 15 EC that do not belong to a package. You can choose one of these minors and combine this with one minor of a package. If possible, you can even choose 2 minors from different packages.

MINOR INFORMATION
In the Minor AMO, we take the aircraft as the point of focus. We look at its technical and economic properties, its use, its users, the regulations and constraints under which it operates, the ways its performance is assessed. This focus integrates the various technical, economic and social (human) subjects covered in the module.

The civil aerospace industry is the main focus, but military aerospace will also be briefly addressed, if only because civil and military aerospace are so intertwined.

We do not confine ourselves merely to theory. You will experience what it is like to manage your own (virtual) airline.

The Minor Aerospace Management & Operations and the Minor Aircraft Engineering together form the HTHT-
package Aeronautical Engineering & Management. The minor Aircraft Engineering explores the technical aspects of aircraft design and maintenance: aerodynamics, structures and systems, while the minor Aerospace Management & Operations focuses on the utilization of aircraft and the industrial and management processes involved.

The minor starts with two videos, one about the development and utilization of a civil aircraft (the Boeing 747 Jumbo Jet) and the other about the development of a military aircraft (the Eurofighter Typhoon), plus an introduction lecture. You have to answer several questions about the videos for yourself and, from these answers, define your personal learning objectives for the minor. Then, the lectures on the aerospace industry will start, together with self study of the literature. On a few moments the students will be split in groups of two, and discuss self-chosen topics of the literature with each other. The lecturer will be present to answer questions.

In later weeks, further videos (about safety, air traffic management etc.) will be shown. Before each video, you will receive a list of questions that will be discussed afterwards.

The first lectures on Aerospace Industry will take place in the first week of the minor. Basic concepts addressed are technical (lift, drag, stability & control, propulsion, aircraft configuration, aircraft performance etc.), economical (direct operation cost, load factor, route structure etc.) and social/human (decision processes, human-machine interface etc.). From the second week onwards, the lectures on Maintenance, Revenue Management, Airport Management and the guest lectures will start. You prepare questions for the guest lecturers.

In the second half of the minor, you will work on the Airport Analysis project. In this project, you utilize and integrate the knowledge obtained in the lectures on Aerospace Industry and Airport Management. You do this by choosing an airport and describing its structure, its functions, its strengths and weaknesses compared to relevant competitors, and making recommendations concerning its future strategy. Lectures etc. will continue.

There will be an assignment on Maintenance, applying the theory by solving maintenance-related problems (calculating downtime as a function of spare parts availability, failure rates of multi-element systems etc.). Also, there will be an assignment on Revenue Management, where you gain insight in the ways airlines set prices for groups of seats so as to optimize revenues. If feasible, an excursion to either KLM, Schiphol, another airport or to the Air Traffic Control Center at Schiphol (Luchtverkeersleiding Nederland) will be organized. Possibly, a non-compulsory excursion to the Aviodrome aviation museum (with guided tour) at Lelystad Airport will be organized.

In the final part of the minor, time is reserved for preparation for the tests (one each for Aerospace Industry, Maintenance and Airport Management).

The minor ends with a management game of running a virtual airline. In this game, the knowledge that you gained in this minor is to be used and integrated, resulting in a series of management decisions concerning, for example, choosing routes to fly, setting ticket prices, reacting to a workers’ strike or a safety incident etc.

Let your dreams take wings!