Hochschule für Angewandte Wissenschaften Hamburg
Hamburg University of Applied Sciences

Aeronautical Engineering

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Photos Fotoarchiv Luftfahrtstandort Hamburg (AIRBUS S.A.S.), Lufthansa Archiv, Anne Gabriel-Jürgens, Hamburg Tourismus GmbH

HAMBURG – the world's third largest centre for civil aviation

The industrial motor in Hamburg is now the aviation industry with aircraft manufacture and development (Airbus), maintenance (Lufthansa Technik), and the many small and medium-sized companies manufacturing parts for this industry.

AIRBUS

Not only does Airbus produce the fuselage sections for the entire Airbus family in Hamburg, the Hamburg site, employing around 11,000 people, is responsible for the final assembly of the A318, A319, and A321 models. The decision to have the cabins for the new super jumbo A380 fitted out in Hamburg has further boosted the city's standing as an aviation centre. Hamburg thus joins Seattle (USA) and Toulouse (France) as one of the world's three great centres of civil aviation.

Lufthansa-Technik

Lufthansa-Technik AG (LHT), head office and base at Hamburg Airport, has been equally successful. The company now has more than two dozen subsidiaries around the world and they form an alliance which has enabled LHT to establish itself as the global leader in the maintenance, repair and overhaul (MRO) sector. The company has around 25,000 employees - 7,000 of them in Hamburg - attending to more than 540 clients around the world, including of course Lufthansa, which entrusts its entire fleet to LHT. At the Hamburg Fuhlsbüttel site, which covers more than 750,000 m², LHT provides a full range of technical aircraft services. This includes a complete overhaul for Airbus and Boeing models and for engines built by IAE, General Electric, CFMI and Pratt & Whitney. LHT also plays a major role in the development, refitting and equipping of VIP and business jets.

SMEs

Roughly 300 innovative small and medium-sized enterprises in the metropolitan region of Hamburg form a complete network of suppliers for the aviation industry world-wide, particularly in the fields of industrial design, construction, testing and production of cabin interiors. Of particular note are: DASELL Cabin, specialist for sanitary systems in all aircraft; iDS – Industrial Design Studio develops cabin designs for AIRBUS, BOEING, Bombardier and others; Dräger Aerospace provides oxygen supply and safety systems for BOEING and AIRBUS cabins; ESW Extel and COMTAS Composite supply high tech parts such as lifts and monuments in the cabin.

Source: Hamburg Business Development Corporation (HWF)

Building the AIRBUS A380

AIRBUS' 21st century flagship – the A380 – introduces a new era of airline transportation and further increases Hamburg's role in the industry. AIRBUS in Hamburg will be producing major sections of the world's largest passenger aircraft. Responsible for the development and assembly work of much of the fuselage, AIRBUS in Hamburg also has sole responsibility for the newly developed cabin interiors, including the electronics and all systems. AIRBUS in Hamburg coordinates the delivery of aircraft to customers in Europe and the Middle East.

Centre of competence for cabins

Hamburg has earned international recognition in the aviation community as a centre of competence for aircraft cabins and cabin systems. The Completion Centre at Lufthansa Technik AG is responsible for the fitting of business and government aircraft. It leads development in aircraft fittings with innovative solutions for example, in onboard communication and in-flight entertainment. AIRBUS Germany and Lufthansa Technik cooperate closely with small and medium-sized companies to develop modern cabin interiors and sophisticated technologies. Product innovations include coatings and textiles, lifts for large aircraft as well as digital cabin communication and management systems. New design concepts are developed in close cooperation with universities, research institutes and end customers (airlines, transport companies), with worldwide cabin customising becoming an ever more important topic. Since 2002 Hamburg has been the venue for the Aircraft Interiors Expo (AIE). This trade fair is the key event in the aircraft cabins and cabin systems sector.

Source: Joint Initiative Hamburg – the place for aviation

Hamburg University of Applied Sciences (HAW Hamburg)

With over 12,000 students the HAW Hamburg is the second largest institution of higher education in Hamburg and the third largest of its kind in Germany. Founded in 1970, our roots go back to the 18th century. Practice orientation is our trademark: theory from lectures is put into practice in the laboratories, study projects are completed in the form of case studies and close cooperation with industry ensures a direct link to the future field of work. In addition to an academic title our professors have worked for many years in private companies and public institutions.

Faculty of Engineering and Computer Science

The Faculty of Engineering and Computer Science is our largest faculty with 4,800 students enrolled here. Four departments of Hamburg University of Applied Sciences make up this faculty, covering the fields of Automotive & Aeronautical Engineering, Mechanical Engineering, Information & Electrical Engineering and Computer Science.

Department of Automotive and Aeronautical Engineering

In the Department of Automotive and Aeronautical Engineering the students are taught the design and calculation of vehicles and aircraft with the help of modern computer and laboratory technology. The study majors include body design, aircraft design, cabin interiors and lightweight structures. Close cooperation with the important companies in the automotive industry and the immediate vicinity of Hamburg's aircraft production site (AIRBUS) guarantee practice-oriented and state-of-the-art degree programmes with excellent career possibilities.

Facts: 1,230 students
43 professors
22 employees in teaching, research and administration

2 Bachelor programmes
2 Master programmes

The Department of Automotive and Aeronautical Engineering has six laboratories that are a fundamental part of the practice-oriented teaching at Hamburg University of Applied Sciences:

- Aerodynamics lab
- Automotive lab
- CAD lab (CAD workstation pool)
- Flight lab
- Lightweight Structures Lab
- Model building lab

as well as an A320 System Simulator

Students use the labs to work on study projects and Bachelor theses, developing and testing ideas learned in lectures.

Degree programmes

The department offers degree programmes in Aeronautical Engineering and Automotive Engineering at Bachelor (Bachelor of Engineering) and Master (Master of Science) levels.

Aeronautical Engineering (BEng)

The Bachelor programme is made up of seven semesters – six semesters of theory and the final semester in industry, including the completion of a Bachelor thesis. In each semester there are courses equivalent to a total of 30 credits.

Foundation Studies

The first three semesters focus on laying the foundations in mathematics, physics, engineering mechanics, construction and design principles and descriptive geometry:

Area of Study	Course	Hours per week	ECTS Credits
Semester 1			
Mathematics	Mathematics 1	8	9
Mechanics 1	Statics	6	7
Material Science	Material Science	2	2
Design 1	Free hand drawing	2	3
	Technical Drawing	4	6
	Descriptive Geometry 1	2	3
Semester 2			
Mathematics	Mathematics 2	6	7
Mechanics 1	Strength of Materials	6	8
Physics 1	Electrical Engineering/Measuring Technology/Electronics with Lab.	6	6
Material Science	Material Science	4	4
Design 1	Descriptive Geometry 1	2	3
	Intro. to CAD	2	2
Semester 3			
Mechanics 2	Dynamics	6	7
Physics 2	Thermodynamics	6	7
	Fluid Mechanics	2	2
Design 1	Descriptive Geometry 2	4	2
	Machine Parts	8	8
	Project Descriptive Geometry		4

In semesters four to six students can choose between two study majors:

Study Major: Design and Lightweight Structures

This study major looks at aircraft design, focusing particularly on the special requirements of design, calculation and the materials used in the manufacture of lightweight structures.

Area of Study	Course	Hours per week	ECTS Credits
Semester 4			
Computer Science	Computer Science	4	4
Design 2	Machine Parts Design		5
Aerodynamics	Aerodynamics with Lab.	8	8
Structure Analysis	**Strength of Lightweight Structures**	4	5
	Finite Elements	4	4
Measurement Engineering	Measurement Engineering with Lab.	4	4
Semester 5			
Structural Design	Structural Design	7	8
	CAD in Aeronautical Engineering	1	2
	Lightweight Structures Lab.	2	2
Flight Mechanics	Flight Mechanics with Lab.	6	8
Aircraft Manufacturing	Aircraft Manufacturing	4	4
Seminar	Seminar	2	2
	Planning & Presentation	2	2
Business	Introduction to Economics	2	2
Semester 6			
Aircraft Propulsion	Aircraft Propulsion	4	4
Aircraft Design	**Aircraft Design**	4	4
Composite Materials	Composite Materials	4	4
Excursion	Excursion or field trip		2
Business	Introduction to Business	4	4
	Human Resource Management	2	2
Value Engineering	Value Engineering	2	2
Project	Project		8
Semester 7			
Industry	Industrial Placement		20
	Bachelor Thesis		10

Modules in bold are offered in English

Study Major: Cabin and Cabin Systems.

This study major looks at cabin systems, systems design and systems integration and the ergonomics and specifications of cabin design. AIRBUS Germany supports this study major by financing a Chair in Cabins and Cabin Systems in the department.

Area of Study	Course	Hours per week	ETS Credits
Semester 4			
Computer Science	Computer Science	4	4
Design 2	Machine Parts Design		5
Aircraft project	Aircraft project	6	7
Structure Analysis	Strength of Lightweight Structures	4	5
	Finite Elements	4	4
Cabin Architecture	**Architecture of the Aircraft Cabin**	**4**	**5**
Semester 5			
Composite Materials	Composite Materials & Sandwich Technology	4	4
	Lightweight Structure Cabin Lab	2	2
Cabin Systems	**Cabin Systems (Parts 1 and 2)**	8	8
Cabin Modules	Cabin Modules & Monuments with CAD lab	4	6
Cabin Manufacturing	Cabin Manufacturing	4	4
Seminar	Seminar	2	2
	Planning & Presentation	2	2
Business	Introduction to Economics	2	2
Semester 6			
Ergonomics & Design	Ergonomics & Design	4	4
Methods of Systems Design/ Integration	Aircraft System Design	4	4
	Aircraft System Integration	4	4
Excursion	Excursion or field trip		2
Business	Introduction to Business	4	4
	Human Resource Management	2	2
Value Engineering	Value Engineering	2	2
Project	Project		8
Semester 7			
Industry	Industrial Placement		20
	Bachelor Thesis		10

Modules in bold are offered in English. Cabin Systems is divided into two parts à 4 ECTS. Part 1: »Mechanical Cabin Systems« is offered in English.

Aeronautical Engineering (MSc)

The Master's programme in Aeronautical Engineering is made up of three semesters – two semesters of theory and the third semester for the completion of a Master's thesis.

The **Master's programme** offers the **study majors »Design & Lightweight Structures«** and »**Cabin and Cabin Systems«** Students complete a programme of five compulsory modules and five compulsory electives which together with the Master's thesis make up a programme of 90 ECTS credits:

Area of Study	Module	Hours per week	ECTS Credits	Semester
Semester 1				
Compulsory modules	Management in Product Design	4	6	both
	Creep & Fatigue	4	6	both
	Acoustics	4	6	both
Compulsory electives	Compulsory Elective	4	6	
	Compulsory Elective	4	6	
Semester 2				
Compulsory modules	Systems Engineering	4	6	both
	Engineering Vibrations	4	6	both
Compulsory electives	Compulsory Elective	4	6	
	Compulsory Elective	4	6	
	Compulsory Elective	4	6	
Semester 3				
	Master Thesis		30	

The students can choose from the following **compulsory electives**:

Area of Study	Module	Hours per week	ECTS Credits	Semester
Aeronautical Engineering				
Compulsory electives	Calculation of Composite Structures	4	6	Winter
	Computational Fluid Dynamics	4	6	Winter
	Manufacturing of Composite Structures	4	6	Summer
	Aeronautical Engineering Project	4	6	both
Design & Lightweight Structures				
Compulsory electives	Aeroelasticity	4	6	Winter
	Stability & Control (Flight Mechanics 2)	4	6	Winter
	Propulsion	4	6	Summer
	Structural Design Optimisation	4	6	Summer
	Design of Composite Structures	4	6	Summer
	Testing Methods in Aeronautical Engineering	4	6	Summer
Cabin & Cabin Systems				
Compulsory electives	System Integration and Testing	4	6	Winter
	Electrical Cabin Systems	4	6	Winter
	Maintenance and retrofit	4	6	Winter
	Design of Sandwich Structures	4	6	Winter
	Building, Human Factors, Aeromedicine	4	6	Summer
	Mechanical Cabin Systems	4	6	Summer

Winter (Sept. – Feb.); Summer (March – July)

Aeronautical Engineering Modules in English

At undergraduate level we offer a full semester programme (30 ECTS credits) made up of five modules from our two areas of expertise «Aircraft Design & Lightweight Structures« and »Aircraft Cabin/Cabin Systems«:

1. Aircraft Design

Students will learn the technical terms of aircraft design parameters. Furthermore, they will be taught the fundamental relationship of aircraft design parameters. They will be able to design an aircraft (to the detail as covered during the lecture). In addition, they are able to work on specialized areas in aircraft design without assistance, making use of the various sources of information. Students will be able to structure design activities systematically and efficiently.

2. Strength of Lightweight Aircraft Structures

Students will be able to understand and use the basic methods for calculating strength, stiffness and stability of thin-walled constructions in aeronautical engineering. They will look at the prerequisites and definitions for lightweight structures, stress and distortion conditions as well as cross section parameters. They learn to use energy methods to shape changes of static-defined systems and look at structures not defined by statics.

3. Architecture of the Aircraft Cabin

Students will be taught the fundamental requirements for the design and the operations of an aircraft cabin from the perspectives of different groups, e.g. passengers, carriers, regulatory authorities. They will learn about the basic criteria for the construction of an aircraft cabin and its interdependencies. In addition, they will be able to evaluate current developments and projects in the area of aircraft cabins and cabin systems.

4. Mechanical Aircraft Cabin Systems

Students are taught the technical fundamentals and functions of individual fluid mechanical aircraft cabin systems and their interdependencies with other systems and with features of the whole aircraft. They will learn about main parameters required for system operation and system integration into an aircraft. Dependencies between system design/installation and cabin operation and cabin comfort properties (e.g. cabin acoustics, cabin ventilation) are explained in detail.

5. Aeronautical Engineering Project

Students will work independently on a constructional, experimental or theoretical project in the area of aeronautical engineering, using scientific methodology and findings. They have the opportunity to assist a doctoral student in his/her field of research. A constructional project looks at the illustration of the project task, the description of the solution, the necessary analyses and calculations as well as their results and a detailed presentation (written report) of the work with a constructional solution. A theoretical project also includes the explanation of the theoretical analyses and calculations as well as the developed models. An experimental project also includes a description of the experimental implementation as well as the instrumentation.

Short Courses in English

These intensive courses last a week and are held **in English**. »Introduction to Aeronautical Engineering«, »Optimisation of Lightweight Structures« and »Cabin Design« are special courses that can be offered on demand if a university is interested in participating with a group of students.

1. Aircraft Design

The objective of this short course is to show how the configuration (or: three-view drawing) of an aircraft evolves out of the requirements assigned to it. In contrast to other subjects in aeronautical engineering that deal with aircraft analysis, this course deals with aircraft synthesis. The main objective of this course is to show that benefits in the design in one area of the aircraft generally lead to disadvantages in another area. Optimum aircraft design follows from a multi-disciplinary optimisation. A successful aircraft will be one, were an overall optimum was pursued in all design activities.

2. Design of Lightweight Aircraft Structures

The objective of this module is to provide an insight into the different areas involved in the lightweight design of aircraft structures. On completion participants will be able to understand the design process of lightweight structures, to evaluate the properties, performance and application of typical materials, to know how to solve different structural problems by appropriate analytical and numerical methods and to understand the influence of structures design on reliability, safety and economics of aircrafts.



3. Introduction to Aeronautical Engineering

The course covers the fundamentals of the main disciplines of aeronautical engineering and their interdependencies. The disciplines covered are aerodynamics, flight mechanics, propulsion, aircraft systems, aircraft structures and aircraft design. Participants shall be able to understand their specialised work in the framework of the aviation system. They should see their work as part of the development cycle of an aircraft and should be able to relate their work to aeronautical fundamentals.

4. Optimisation of Lightweight Structures

Well-founded simulation models give information for several behaviours of the lightweight structure. Additionally, it is very comfortable to modify the structure in order to improve the mechanical behaviours. Numerical optimisation strategies use this flexibility and try to find the best structure for the defined objective functions and the constraints. Students learn the definition of optimisation problem (Which design variables have to be in account? Which objective and constraint functions are necessary? Which simulations are necessary?). They understand the principle approach of optimisation algorithm and optimisation strategies, their possibilities and their problems.

5. Cabin Design

The most important link between people and technology in the transport system is the cabin. The course looks at market analysis and benchmarking of all types of aircraft cabins (short, medium and long haul – low cost, corporate and VIP cabins) at ergonomics, design languages and passenger comfort items. Students will complete short exercises, looking at the cabin industrial design process for OEM (original equipment manufacturer) and supplier industry. This includes experimental modelling and interdisciplinary product development for cabin parts, lighting, acoustics, climatic environment and stowage. Areas of particular importance are product design development for BFE (Buyer Furnished Equipment) and SFE (Seller Furnished Equipment), passenger comfort and safety as well as cabin security and the future outlook for aircraft cabins.

Research

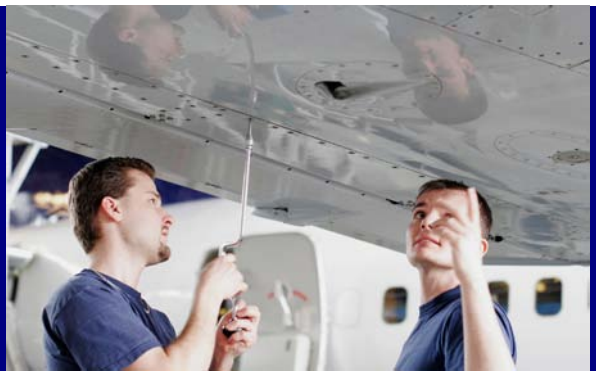
Research in the Aircraft Design & Systems Group Aero (Prof. Dr. Dieter Scholz)

Green Freighter

Green Freighter is a joint research project (2006 – 2009) with the aim of looking at conventional und unconventional cargo aircraft configurations. Investigations are based on a tentative entry into service in 2025. The main focus is on environmentally friendly and economic aircraft operation. This includes technical aspects such as low fuel consumption, future fuels (LH_2, LPG, synthetic fuels, etc.), low noise (night operation), low emissions (CO_2, NOx, etc.) and low operating costs through reduced crew (zero pilot operation).

ALOHA – Aircraft Design for Low Cost Handling

ALOHA is a joint research project (2007 – 2009) and looks at and evaluates innovative conventional and unconventional aircraft designs. The aim is to reduce Direct Operating Costs (DOC). The focus is on Low Cost Airlines (LCA) for whom ground costs make up a large proportion of total operation costs. Measures to reduce ground costs can however, lead to an increase in depreciation, fuel or maintenance costs. It is there necessary to maintain a holistic view on aircraft design and operation. The project includes research into ground handling operations and associated costs at the airport.



PAHMIR – Preventive Aircraft Health Monitoring for Integrated Reconfiguration

PAHMIR is a joint research project (2008 – 2011) and looks at the reconfiguration of cabins, cabin modules and components and at error detection and diagnostic systems for the preventative maintenance of cabin systems. Both technologies are possible today due to the availability of small, powerful and inexpensive sensors that can be used to automatically identify and manage different cabin configurations and to build error detection and diagnostic systems which are also economical for smaller (less expensive) cabin system components.

CARISMA – Aircraft Cabin and Cabin System Refurbishing – Optimisation of Technical Processes

CARISMA is a cooperative industrial/academic research project of three organisations with ELAN, a German engineering office, HAW Hamburg and the Universitatea Politehnica Bucharest. It investigates the "vision" of the "Completion Centre" with regard to cabin conversion. With the general economic downturn airlines will be required to adapt and optimise their fleet. A completion centre carries out the conversion of an aircraft starting from the customer request up to aircraft delivery. Conversion scenarios can be Pax-to-frieghter, Pax-to-VIP. Pax-toPax (with different cabin layout).

MOZART – Aircraft Health Monitoring of Fuel Cells in Aviation

Optimization of monitoring strategies and the minimization of maintenance costs for fuel cell systems on passenger aircraft.

AIRPORT 2030 – Airport Configurations for a Scenario 2015

Development of more economic concepts and solutions for the ever increasing air traffic. The HAW Hamburg is working on an efficient aircraft configuration for 2015.

Validation of Structural Analysis Models (Prof. Dr. Michael Seibel)

This research project looks at ways of replacing cost intensive hardware tests with numerical simulation. Besides considerable time and cost savings, numerical simulation allows insight into problems and better identification of deficiencies and a more selective optimisation, even before the actual component is built. The challenge is to determine a numerical-based and reliable system of structural behaviour, without having the possibility of verifying the numerical results with those resulting from the test. The key topics of the project are validation of finite element models of flight vehicle structures, virtual testing, Skopinski method andStructural health monitoring.

Structures designed and manufactured with fibre-reinforced materials (Prof. Dr. Michael Seibel)

Using fibre reinforced materials requires specific knowledge concerning material behaviour, design principals and related manufacturing method. As the material and its properties are a result of the manufacturing process, design and manufacturing method must be harmonised. Additionally, the structures for aerospace applications are not produced in mass production processes due to the limited number of pieces. The main research areas are improving existing manufacturing methods, development of cost effective manufacturing methods (monolithic and sandwich structures) and the design of crashworthy structural elements.

Optimum Design of Lightweight Structures (Prof. Dr. Axel Schumacher)

Strong technological competition requires the reduction of design time and costs. Products of high quality, functionality and reliability in conjunction with objectives such as energy saving, use of new materials and the consideration of environmental problems, often demands new solutions for which prior engineering experience is totally lacking. Scientific methods, such as structural analysis, design sensitivity analysis and optimisation become more important.
The main focus is on the optimum design of composite structures considering stability (buckling) and eigenfrequency requirements as on crashworthy structural design. Current research projects are parameter-based topology and shape optimization, robust design of structure (considering scatterings of influence variables in the design process), optimization of composite material structure and design of crashworthy structural elements.

Crash Simulation (Prof. Dr. Axel Schumacher)

In order to improve the safety of aircrafts and automotive are realistic crash simulation with explicit finite element programs is necessary. Here, the projects are high dynamic simulation of aircraft seats, new pedestrian protection systems for automotive front modules and comparison strategies between hardware test results and simulation results.

Blended-Wing-Body Student Project

Conventional aircraft have a payload carrying fuselage supported by separate wings. Flying wing aircraft, on the other hand, consist only of a wing that houses the payload. The Blended-Wing-Body (BWB) aircraft is a blend of both configurations: A wide lift producing centre body housing the payload blends into conventional outer wings. With a model to the scale of 1:30 this student project looks at different aspects of this aircraft of the future.

- A particular challenge is the comfort and safety of the 900 passengers in the window-less cabin. With Prof. Granzeier students are developing innovative interior design concepts to make the trip as comfortable as possible.
- Prof. Zingel supervises theoretical calculations of the BWB. Students have also measured lift and drag as well as stability and control parameters in a wind tunnel test in Dresden-Klotzsche.
- Students also carry out flight tests with the model to determine the aerodynamic and flight mechanics characteristics of this BWB aircraft. Under the guidance of Prof. Scholz the model aircraft has been equipped with high tech sensors, on-board data recording and a telemetry system. Over 20 flights have been successfully carried out.

Hamburg

In the North of Germany and in the heart of Europe – Hamburg is Germany's second largest city (1.8 million inhabitants) and offers an excellent quality of life and international flair.

City on the water

Hamburg is a city on the water. The »Alster«, a 1.6 km² large lake in the middle of the city, is the perfect place for sailing, canoeing and rowing – not just for sportspeople but also for city people who prefer a leisurely boot trip on a mild summer evening. The Elbe flows through Hamburg and connects the city and its international harbour with the world.

Dynamic City

Hamburg is one of the most dynamic commercial centres in Europe with a strategic focus on six innovative segments: aviation (Airbus, Lufthansa), IT and media, international port and logistics, life sciences, nanotechnology and renewable energies. Competence clusters interlink companies, universities and research institutes to ensure that knowledge is shared and innovative ideas developed further.

Green city

Hamburg is a green city. Numerous trees and large parks make life in this city very pleasant. Whether at the weekend or after work and whatever the weather – Hamburg citizens enjoy the parks at the »Alster«, the 140 hectare large »Stadtpark« or the flower paradise »Planten un Blomen«. Europe's »greenest« city offers a wide range of possibilities for everyone who enjoys spending time out of doors

City of culture

Hamburg is a city of culture**.** A vibrant theatre scene offers everything from big, classical productions to fringe theatre. Hamburg is famous for its ballet and is the third largest musical city after New York and London. Fifty museums offer a varied programme of exhibitions and collections. The Beatles achieved international acclaim in the Hamburg »Starclub« and today world stars are at home in the arenas and on the stages of the city.

What we can offer your students

Students from aeronautical engineering programmes and associated fields have the opportunity to study or do research in our department:

For students who do not speak German

1. Aeronautical Engineering Modules in English

In our Bachelor's programme we offer five modules from our two areas of expertise »Aircraft Design & Lightweight Structures« and »Aircraft Cabin/Cabin Systems« in English as a full semester programme:

- Aircraft Design
- Strength in Lightweight Structures
- Architecture of the Aircraft Cabin
- Mechanical Aircraft Cabin Systems
- Aeronautical Engineering Project

2. Study Projects in our research teams

Students can work with professors on a project in our main fields of research or they can be given a study project that is connected to the field of study in one of our labs. These projects can vary from 8-10 weeks to a full semester, depending on what the student is looking for. The student can however, also suggest a topic of interest and we can find a professor willing to support the student during his stay.

3. Short courses

Our department specialises in the fields of aircraft design, lightweight structures and cabins. Our short courses are a good way of looking these specific fields in an intensive and in-depth way. They are therefore best suited for postgraduate students or qualified undergraduate students.
»Optimisation of Lightweight Structures« and »Cabin Design« are department courses that can be offered on request and are also suitable for undergraduate students.

For students who speak German

In addition to the opportunities listed above, students can take courses in our undergraduate degree programmes, putting together their own semester programme with courses of interest.

We would be very pleased to welcome your students as guests at our university.

Contact

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