



**ENGINEERING –  
SPREAD YOUR WINGS**

## Study insights

This Masters offers exciting **hands-on team** projects, e.g. **cargo-drone** and **Cube-Sat development**, all under the guidance of dedicated professors. It was an overall **great experience**.

**Tomas Hamann**  
Graduate

Videos & podcasts!



Scan QR code & Start video!



**Academic degree:**  
Master of Science  
Aerospace Engineering

**MSc**



**Study start:**  
Mid-September



**Participate in research & development projects:** **Yes :)**

ECTS:  
**120**

**Language:**  
English



**Duration:** **4**  
Semesters



**Location:**  
Campus 1  
Wiener Neustadt



## Admission

1. Apply here [onlinebewerbung.fhwn.ac.at](https://onlinebewerbung.fhwn.ac.at)
2. Receive an invitation to an interview
3. We will inform you of your results.

## Requirements

- See Info [fhwn.ac.at/aero](https://fhwn.ac.at/aero)
- Bachelor of Science Engineering
- English Certification

## Happy 2 help!

**Krisztina Erdős**  
Study Services

[kriszti.erdoes@fhwn.ac.at](mailto:kriszti.erdoes@fhwn.ac.at)  
+43 26 22 89 084-402

News about the campus & your study programme: [fhwn.ac.at/aero](https://fhwn.ac.at/aero)



Check us out!

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**FACHHOCHSCHULE  
WIENER NEUSTADT**  
Austrian Network for Higher Education

University of Applied Sciences

**MASTER • full-time**  
[fhwn.ac.at/aero](https://fhwn.ac.at/aero)

# Aerospace Engineering

Your gateway to an exciting career

start  
now!



Spot on!

## About the programme

# A unique Master's programme in Austria

AE students learn the most important skills for participating in leading-edge developments where they can contribute to out-of-this world technology.

Aerospace has always been at the forefront of modern technological advances. This is particularly true for the active role privately-owned aviation and space companies are currently assuming in the development of state-of-the-art technology in projects and missions.

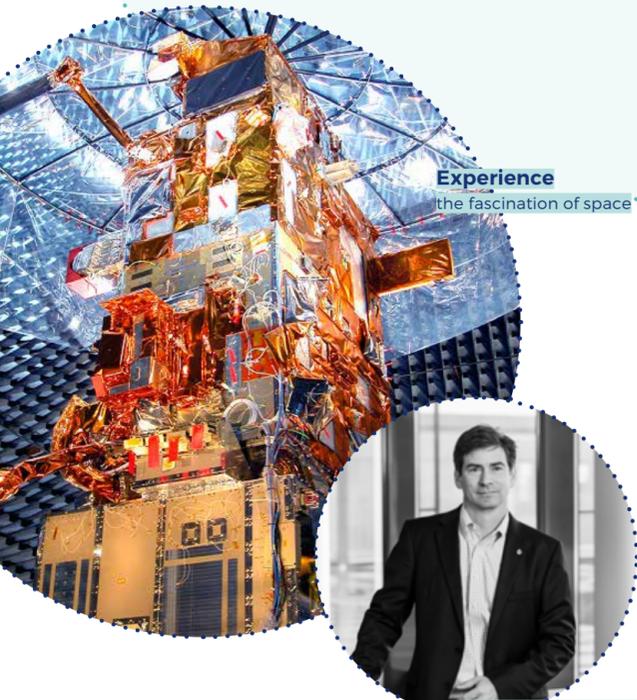
Technologies, processes and the working environment in general continue to change rapidly. Aircraft and space engineering are considered technology drivers, setting new benchmarks which are later assimilated by other engineering disciplines.

Aerospace is not only a truly fascinating subject – it's the ultimate engineering discipline! Aerospace technologies must have the lowest weight, the highest energy efficiency and remain maintenance-free for an extended period

of time. Aerospace engineering offers a challenging, interdisciplinary and very international working environment. The Aerospace Engineering programme equips students with the necessary skills for participating in leading-edge developments and enables them to contribute to technologies which literally take us out of this world.

### HIGHLIGHTS:

- Unique, full-time study programme in Austria
- Taught entirely in English
- Cross-disciplinary and internationally focused
- Practice-oriented & international scope
- Student projects parallel to lectures



Experience the fascination of space

Dr Carsten Scharlemann  
Head of Programme

### NEXT STEP: DREAM JOB!

- Aircraft Design
- Consultant
- Innovation Manager
- Project Manager
- Research and Development
- Sales and Customer Service
- Satellite Test Engineer



Cooperation with industry and R&D institutions.



## About your career

# Career options

An education in Aerospace Engineering opens up many professional possibilities. State-of-the-art education and the implementation of modern methods, materials and tools make graduates highly sought-after in various industries.

Our graduates work in various aerospace-related companies (Diamond Aircraft, RUAG, Airbus, OHB etc.) as well as companies in automotive, energy, communication and other business sectors (Magna Steyr, TTTech, Siemens etc.)

**"An ideal mixture of theory and hands-on education as the perfect preparation for your career."**

Dr. Carsten Scharlemann – Head of Programme

## Course in depth

# Course content & focus

The Aerospace Engineering programme offers an outstanding education which combines many engineering disciplines, such as lightweight engineering, material sciences, thermodynamics, fluid mechanics and propulsion technologies.

The latest software packages such as CATIA for drawings and construction or ANSYS for finite-element simulations, STK, DRAMA, Fastrad etc. for space mission planning and many others are taught with practical examples integrated into recent R&D topics.

The department offers numerous R&D projects in which students can apply their knowledge and improve their skills.

In the course of one such project, the FHWN CubeSat Programme, a nano-satellite was successfully launched in 2017. Several new satellite missions are in the development stage (for more information see [cubesat.fhwn.ac.at](http://cubesat.fhwn.ac.at)). Another cool project is Aircraft Conceptual Design (ACD) in which students work with industry experts on drone applications ([acd.fhwn.ac.at](http://acd.fhwn.ac.at)).

### GOOD 2 KNOW:

Read what our graduates say [fhwn.ac.at/aero/graduates](http://fhwn.ac.at/aero/graduates)



## LARGE NETWORK OF COOPERATION PARTNERS

Our programme also benefits from the Aerospace Engineering department at FOTEC, the R&D company within the University of Applied Sciences Wiener Neustadt, where experts in the field of propulsion and new energy technologies carry out cutting-edge research for ESA, NASA and leading industries around the world.

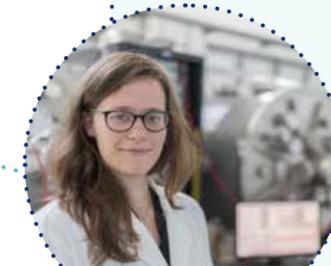
- Hands-on project work is integrated in course work
- Dedicated AE labs and research equipment
- High-speed computational lab
- Lecturers are experts from companies, industry and R&D

## Hands on – your turn!

# Research & Development

In age of rapidly changing technologies, the FHWN's Aerospace Engineering department provides an excellent project environment for future aerospace engineers.

Together with its research company [fotec.at](http://fotec.at), the AE department is involved in cutting-edge R&D. In collaboration with its research partners, the FHWN is investigating advanced space propulsion and systems for future space missions, developing new materials and manufacturing methods for aviation and space applications and expanding on-site research utilization technologies for future space exploration.



This programme is the perfect preparation for your career.

# Curriculum

1 <sup>st</sup> semester	ECTS 30
Adv. Math., Statistics & Optimisation <sup>1)</sup>	6
CAD for Aerospace Projects	5
Adv. Finite Element Computation <sup>1)</sup>	7
Aerospace Project Management & System Engineering	2
Quality Management in Aeronautics	2
Aerospace Players & Trends 1	2
Physics of Flight	3
Computational Fluid Dynamics	3
2 <sup>nd</sup> semester	ECTS 30
Aerothermodynamics 1	3
Satellite Technologies	3
Aircraft Design <sup>1)</sup>	7
Aircraft Systems & Technologies	4
Autonomy & Unmanned Aerial Vehicles	3
Space Propulsion	3
Junior Team Project	3
Lightweight Construction	3
Composites Manufacturing Processes	1
3 <sup>rd</sup> semester	ECTS 30
Aerothermodynamics 2	3
Air-breathing Propulsion	3
Senior Team Project	5
Space Applications (Telecom/Nav/RS)	3
Space Mission Analysis & Design <sup>1)</sup>	7
Dynamics of Flight & Flight Control	3
Spacecraft Environment & Interactions	3
Aerospace Materials & Processes	2
Aerospace Players & Trends 2	1
4 <sup>th</sup> semester	ECTS 30
Master's Thesis / Seminar	3
Master's Thesis	27

### GOOD 2 KNOW:

StartUp Center for our entrepreneurs: [fhwn.ac.at/startup-center](http://fhwn.ac.at/startup-center)

Practical & future oriented