



MASTER • full-time

fhwn.ac.at/maero

**FACHHOCHSCHULE
WIENER NEUSTADT**

University of Applied Sciences – Austria

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.

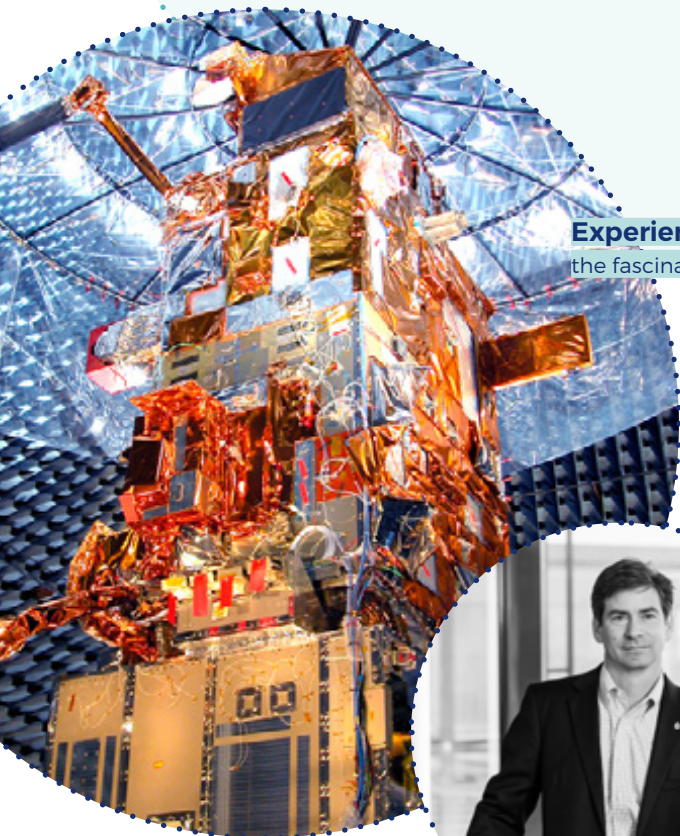
Technologies, processes and the working environment in general continue to change rapidly. Aircraft and space engineering are considered technology drivers, setting new benchmarks which are later assimilated by other engineering disciplines.

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 and Spacecraft 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 coupled with 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). Another cool project is Aircraft Conceptual Design (ACD) in which students work with industry experts on drone applications (acd.fhwn.ac.at).

GOOD 2 KNOW:

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

Practical
& future-
oriented



Curriculum

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!



This program
is the perfect preparation for
your career.

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**, 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 as well as manufacturing methods for aviation and space applications and expanding on-site research utilization technologies for future space exploration.

1st semester ECTS 30

Adv. Math., Statistics & Optimisation ¹⁾	6
CAD for Aerospace Projects	5
Adv. Finite Element Computation ¹⁾	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

2nd semester ECTS 30

Aerothermodynamics 1	3
Satellite Technologies	3
Aircraft Design ¹⁾	7
Aircraft Systems & Technologies	4
Autonomy & Unmanned Aerial Vehicles	3
Space Propulsion	3
Junior Team Project	3
Lightweight Construction	3
Composites Manufacturing Processes	1

3rd semester ECTS 30

Aerothermodynamics 2	3
Air-breathing Propulsion	3
Senior Team Project	5
Space Applications (Telecom/Nav/RS)	3
Space Mission Analysis & Design 1)	7
Dynamics of Flight & Flight Control	3
Spacecraft Environment & Interactions	3
Aerospace Materials & Processes	2
Aerospace Players & Trends 2	1

4th semester ECTS 30

Master's Thesis / Seminar	3
Master's Thesis	27

GOOD 2 KNOW:

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



ENGINEERING –
SPREAD YOUR WINGS



Scan QR code &
Start video!

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**.

Verena Eschelmüller, BSc
Student

Videos &
podcasts!



Academic degree:
Master of Science
Aerospace Engineering

MSc

ECTS:
120



Language:
English



Study start:
Mid-September



Duration: **4**
Semesters



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



Location:
Campus 1
Wiener Neustadt



Admission

1. Apply here
onlinebewerbung.fhwn.ac.at
2. Receive an invitation
to an interview (online or on-campus)
with the Head of Programme
3. A decision will be provided to you within
two weeks after the interview

Requirements

- See Info fhwn.ac.at/maero
- Bachelor of Science Engineering
- Proof of English Proficiency

Happy 2 help!

Maria Hampel

Study Services

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**News about the campus & your study
programme:** fhwn.ac.at/maero



Check us out!

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– FOTEC w/chambers (Research & Development)



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