

Facts and Figures

Duration: 2 years
Program start: October
Language: English
Application deadline: 15 May
Requirements: BSc in Engineering or Science, outstanding performance, English proficiency

Fees
for EU nationals: 155 Euros per semester
for non-EU nationals: 1655 Euros per semester

How to apply

Please check out the website for information on how to apply:

<http://www.inatech.uni-freiburg.de/en/studies>

Contact:
admissions-sse@tf.uni-freiburg.de

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University of Freiburg
Faculty of Engineering
Department of Sustainable Systems Engineering (INATECH)
Emmy-Noether-Strasse 2
79110 Freiburg
Germany



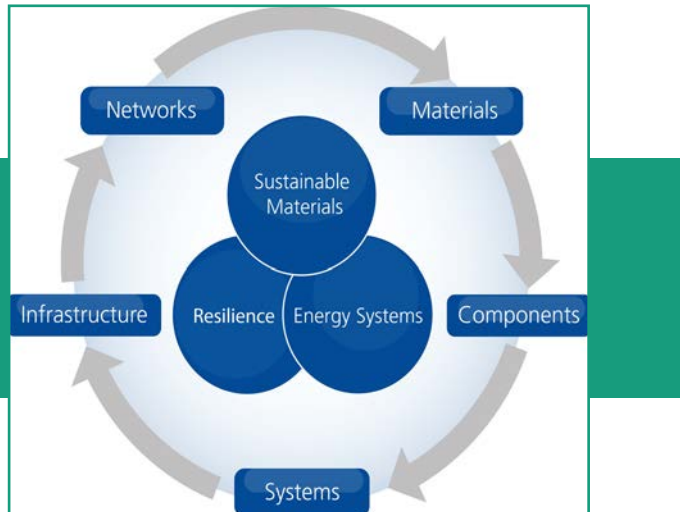
INATECH
DEPARTMENT OF SUSTAINABLE
SYSTEMS ENGINEERING

The Master's Program

The international Master's program Sustainable Systems Engineering (SSE) provides in-depth engineering skills in sustainable materials, sustainable energy systems, and resilience. Complementing interdisciplinary knowledge in natural resources and climate change, as well as sustainable economy, technology and society is also taught during the two-year-program.

SSE students will have the opportunity to:

- be involved in cutting-edge research with internationally renowned professors
- benefit from state-of-the-art equipment on a modern campus and pioneering laboratories at partner institutes
- profit from a European campus (www.eucor-uni.org)
- live in one of Germany's most appealing and green cities



The SSE Master's is designed to prepare graduates in particular for a further career in research. Moreover, highly qualified SSE graduates will satisfy today's needs of

- the conventional and renewable **energy industry**,
- **supply companies, manufacturers** and **operators** active in fields like mobility, energy, infrastructure planning, environmental engineering, risk & resilience, and (raw) materials.

The Curriculum

SSE is an interdisciplinary program that builds on fundamental knowledge in electrical and mechanical engineering as well as natural and materials sciences. In the first semester six compulsory modules will get everyone on the same technical level. From the second semester on, students start concentrating on their favourite research field and select a number of interdisciplinary modules to enhance their holistic societal and scientific understanding.

Semester 1

- Solar Energy
- Energy Storage
- Control and Integration of Grids
- Fundamentals of Resilience
- Material Life Cycles
- Computational Materials Engineering

Semester 2

- Power Electronic Circuits and Devices
- Design & Monitoring of Large Infrastructures
- Security and Privacy in Resilient Systems
- Concentration in
 - Energy Systems
 - Information Processing Technologies
 - Sustainable Materials
 - Resilience Engineering
- Interdisciplinary Profile

Semester 3

- Concentration modules
- Interdisciplinary Profile

Semester 4

- Master Project
- Master Thesis

Find out more about the curriculum by reading through the module handbook available here:

http://www.tf.uni-freiburg.de/studies/module_handbooks

The Department

In order to find solutions for societal and environmental challenges, engineering research is urgent in the fields of energy, materials and resilience. The newly founded Department of Sustainable Systems Engineering (INATECH) unites the scientific power of the University of Freiburg and five Freiburg-based Fraunhofer Research Institutes in these areas. In this way, the INATECH offers a research-oriented Master's program at the leading edge of science and engineering in sustainability.

Find out more about the Department:

<http://www.inatech.uni-freiburg.de>

The University

Founded in 1457, the University of Freiburg is one of the most renowned Universities in Germany. Its Faculty of Engineering focuses on higher education and research in key technologies such as sustainable engineering, microsystems engineering, embedded systems and computer science.

Find out more about the University and the Faculty:

<http://www.uni-freiburg.de/>
<http://www.tf.uni-freiburg.de/>

measurement cell for water electrolysis ©Fraunhofer ISE

