

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	310 EUR per year for EU nationals / 3310 EUR for non- EU nationals*

(*Please check web page for details)

How to apply

Have a look at our website for information on
how to apply:

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

Contact:

study@inatech.uni-freiburg.de

February 2019



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FREIBURG

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



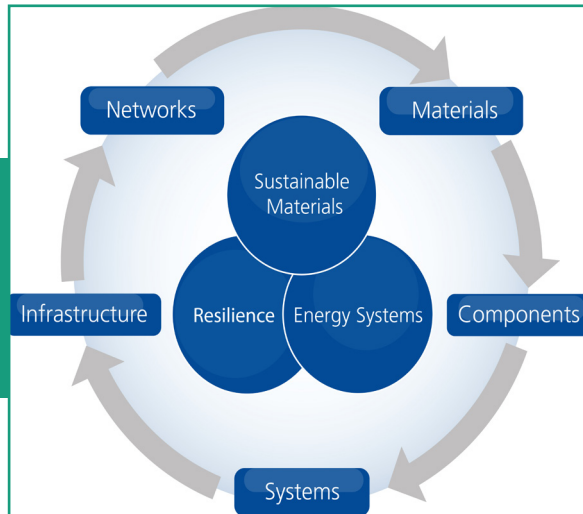
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The Master's Program

The international Master's program Sustainable Systems Engineering (SSE) provides in-depth engineering skills in sustainable materials, sustainable energy systems, and resilience engineering. 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
- benefit 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 and Monitoring of Large Infrastructures
- Security and Privacy in Resilient Systems
- Specialization in
 - Energy Systems
 - Information Processing Technologies
 - Sustainable Materials
 - Resilience Engineering
- Interdisciplinary Profile

Semester 3

- Elective Courses
- Interdisciplinary Profile
- Master's Project

Semester 4

- Master's Thesis

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

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

The Department

The Department of Sustainable Systems Engineering (INATECH) engineers solutions for today's challenges in sustainable development. Our areas of competence are three-fold: Sustainable Materials, Energy Systems and Resilience Engineering. Our department is based on an equal partnership between the University of Freiburg and the five Freiburg-based Fraunhofer institutes. This foundation makes us unique in the research landscape and allows us to cover the entire range from fundamental research to industrial application.

Connecting engineering to sustainability and training engineers to change the world for the better. Be there to make our vision come true!

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

