SENCE (SUSTAINABLE ENERGY COMPETENCE)

Master of Science
Studying in the Association of Universities - a strong partnership.

Since it is a cooperative degree programme, SENCE combines the strengths and resources of three of the most prominent universities in the country, the Universities of Applied Sciences of Rottenburg (HFR), Ulm (HSU) and Stuttgart (HFT).

In its role as the SENCE biomass competence center, University of Rottenburg provides students of the SENCE Master’s programme with various building and site simulation programmes such as TRNSYS.

Furthermore, the SENCE students have a good infrastructure at their disposal with respect to biomass research. The university’s laboratory offers many opportunities for projects or theses.

As the SENCE competence center for plant engineering, the University of Applied Sciences Ulm makes an important contribution to the degree programme.

The University of Applied Sciences Ulm is a University with mainly technically oriented study programmes. The success of the University Ulm is based on the cooperation with businesses. It includes the research and development departments of its own research institutes and several Steinbeis transfer centres from the Steinbeis Foundation for Business Development in Stuttgart.

The HFT Stuttgart is the competence centre for the SENCE degree programme on sustainable energy technology.

The HFT Stuttgart offers a wide spectrum of accredited Bachelor’s-Master’s programmes. In three faculties there are 14 Bachelor’s and 13 Master’s degree programmes to choose from. Training at the HFT Stuttgart is practical and takes place in small groups. 125 professors teach over 3900 students, supported by some 300 lecturers.

“With us, knowledge and expertise on sustainability is acquired through individual studying.”

PROFESSOR DR. DR. H.C. BASTIAN KAISER, RECTOR
“A study programme for the future”

A study and research programme has been condensed from the most important topics as well as from current research activities. It covers the key aspects of the technology and management of regenerative energies. In a cooperation between the universities of Rottenburg (competence centre biomass), Stuttgart (competence centre for solar energy) and Ulm (competence centre for solar thermal energy), this leads to SENCE. The University Rottenburg coordinates administrative issues of the SENCE Master’s programme.

SENCE rests on the foundation of three equal teaching areas: natural sciences, technical sciences, and economic and social sciences. They are reflected in the various phases and modules of the course of studies. A special focus of the programme is self-directed, project-oriented work and research. Students practise these at at the cooperating universities or in the private sector.

A unique programme

More than 30 lecturers at SENCE provide competent and up-to-date coverage of the curriculum in the field of sustainable energy and energy technologies. Among them are professors from relevant university disciplines and further research institutes, as well as experts from business and industry.

The M.Sc. SENCE (Sustainable Energy Competence) programme is certified by the ASIIN accrediting body.

Study SENCE. Because it concerns our future.
**Relevant for practice. Close to nature.**

During the first semester, lectures will for the most part be held at the University Rottenburg. For the SENCE lectures, the university provides an own auditorium equipped with modern computer and beamer technology. Here the programme coordinator takes care of the course progression and offers help and advice to students.

In the second semester each student works on two projects. Tasks are offered both by the participating universities, which can be carried out in the laboratories of universities, and those designed in collaboration with private sector companies. If students have their own project ideas, a collaborative effort is made to implement these.

The third semester provides students with the design of more complex research applications and the basis for entrepreneurial activity as well as mathematical basic knowledge necessary for modelling and simulation applications. This is structured in four module blocks.

The fourth semester is reserved for the preparation of the Master’s thesis. This can take place either at one of the participating universities or in cooperation with external partners.

Students are also personally supported by the SENCE network in the acquisition and processing of the Master’s project.

---

**Programme overview**

<table>
<thead>
<tr>
<th>1st sem.</th>
<th>BASICS/ THEORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd sem.</td>
<td>PROJECT PHASE</td>
</tr>
<tr>
<td>3rd sem.</td>
<td>APPLICATION ORIENTATION</td>
</tr>
<tr>
<td>4th sem.</td>
<td>MASTER THESIS</td>
</tr>
<tr>
<td></td>
<td>MASTER OF SCIENCE (M.Sc.)</td>
</tr>
</tbody>
</table>
You have great development opportunities here. And great career prospects.

Graduates of Master’s programmes are experts in the planning and implementation as well as the R&D of modern energy concepts. Thus, they can become valuable decision-makers in companies, research institutions and other public institutions.

Important potential employers are, in particular, manufacturers of energy technology and equipment, companies with energy-intensive processes, energy supply companies and engineering offices.

In the next years there will be an increasing demand for SENCE graduates due to the radical transformation of energy management towards the minimised and sustainable use of energy and reduced emissions.

**Potential employers**
- Energy supply companies
- Engineering and consultancy agencies
- Producers of energy technology and energy plants
- Communities
- Research institutes
- Larger companies (implementation of efficiency strategies)
- International climate protection institutions
- Development cooperation organisations

**Further qualification**

Due to their numerous research projects and the network, SENCE provides numerous concrete links for conducting dissertation projects.

---

**10 REASONS for SENCE in Rottenburg**

- Unique structure and contents
- Excellent career prospects for over 10 years
- Up to date in research and development
- In cooperation with strong universities
- Personal advice
- High practical relevance
- Opportunity for individual priority
- Full range of renewable energies
- Benefit from an international network
- Ideal course sizes
Getting started

Rottenburg - loveable and liveable

Buildings spanning styles from eight centuries make up the cityscape of the idyllic town on the Neckar river (e.g. medieval and gothic churches or baroque chapels).

A variety of traces dating right back to Roman times bear witness to an interesting past. At carnival time, things get a bit crazy in the city and every year there is a temptingly interesting range of cultural events offered.

Rottenburg offers attractive and affordable living space, with plenty of shopping opportunities and a good range of recreational activities.

Located halfway between Stuttgart and its location halfway between Stuttgart and Lake Constance, between the Black Forest and the Swabian Alb, as well as good transport links to the motorway make Rottenburg an ideal starting point for trips into the region, both close by and further afield.

The state capital is only 50 km away, and the university town of Tübingen is 12 km away. Both towns are easily accessible by train.

Further information on Rottenburg at: www.rottenburg.de

Study programme information day

Twice a year, there is a programme information day at the university. Students and prospective students have the opportunity to attend lectures on the programmes, to participate in a tour of the campus and to talk to professors and students. The dates are on our website.

Access to higher education

There are several ways leading to a degree at the University of Rottenburg: from the general university entrance exam to professional qualifications. Prerequisite is a successfully completed course of studies in the field of engineering or natural sciences. For more information, consult our website.

Application process

Applying for a place at SENCE is basically possible at all cooperating universities. Programmes start in the winter semester. The deadline for applications is June 1st (April 15th for non-EU citizens). Around the end of June, our motivational talks are held to get to know each other personally. Detailed information can be found under the SENCE programme on our website.

In Rottenburg, it is easy to find a suitable room. There are plenty of shared student houses and affordable rooms in dormitories just minutes away from the university.

www.hs-rottenburg.de
Do you have any questions about the programme & applying?

Prof. Dr. Stefan Pelz
Head of studies
Tel. +49 7472/951-235
Fax +49 7472/951-200
e-mail msc.sence@hs-rottenburg.de

Dipl.-Ing. (FH) Anja Hoh
Faculty member
Tel. +49 7472/951-283
Fax +49 7472/951-200
e-mail msc.sence@hs-rottenburg.de

Bachelor of Science
- Forest Management
- Sustainable Regional Management
- Renewable Energies
- Wood Management and Technology
- Water Resource Management

Master of Science
- Forest Management
- Resource-efficient Building

Further programs at the HFR:

Uniwersytet Hohenheim

University of Applied Sciences

Schadenweilerhof
72108 Rottenburg a.N.
Tel. +49 7472/951-0
Fax +49 7472/951-200
e-mail hfr@hs-rottenburg.de

University collaborations