



Bachelor full-time / English
Bachelor of Engineering (B.Eng.)

E-MOBILITY AND GREEN ENERGY



HOCHSCHULE
RAVENSBURG-WEINGARTEN
UNIVERSITY
OF APPLIED SCIENCES

AT A GLANCE



Final Degree

Bachelor of Engineering
(B.Eng.)



Period of Study

7 semesters, including an
internship, full-time



Closing Dates

15 November (Summer Term),
15 July (Summer Term)



Start

Summer Term (in English)
Winter Term (in German)

Admission Requirement

Higher education entrance qualification or
equivalent

ECTS

The course of study includes
210 Credits

Dean of studies

Prof. Dr. Andreas Siggelkow
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Online-Bewerbung

www.rwu.de

KNOWLEDGE & PRACTICAL SKILLS

Shape the future in the era of change. The energy revolution will lead to electricity from renewable sources such as wind, water and the sun.

You think strategically and act responsibly? You want to have secure future prospects and at the same time help protect the environment? You find technology fascinating and love creative and new paths. Then, the study program »E-Mobility and Green Energy« is what you are looking for.

We live in an era of change. Climate, demography, energy, consumption, mobility – everything is subject to fundamental changes. Urgently needed technological leaps and innovations as well as the challenges of environmental and climate protection are the main focus of discussion. The turnaround in energy policy leads us away from fossil fuels and nuclear energy towards clean electricity from renewable energies such as wind, water and the sun.

Here, engineers are needed who shape this change by developing innovative »green« technologies.



STUDY PROGRAM & CURRICULUM CONTENT

A complete conversion to e-vehicles would reduce the energy requirements of passenger cars by 75 percent. This electricity requirement could be completely covered by wind energy.

As a university of applied sciences, our focus is on practice. Laboratories and an electric vehicle are available for experiments and research projects.

During the basic study period (first three semesters), students will learn the basic principles of electrical and automotive engineering. After that, in the main study period (three semesters), they will opt for one of the two areas of concentration, i.e. electromobility or green energies and deepen their knowledge by choosing suitable electives.

The fifth semester is a practical semester. The students will work in a regional company on current projects.

The program is also offered in German, starting in the winter semester.

Students graduate from this study program after seven semesters with the internationally recognized Bachelor of Engineering (B.Eng.) degree.

The lectures of the first four semesters are held in English, whereas in the sixth and seventh semesters, the medium of instruction is German.

For students starting in the winter semester all courses are taught in German.

SEM. MODULE OVERVIEW

ECTS

1	Electrical Engineering 1 & practical course 5	Physics 5	Programming 1 & practical course 5	Digital Technology & practical course 5	Mathematics 1 Analysis 1 5	Mathematics 2 Linear Algebra 5	30	
2	Electrical Engineering 2 & practical course 10		Metrology 1 & practical course 5	Maschine Design 5	Material Science 5	Mathematics 3 Analysis 2 5	30	
3	Electrical Engineering 3 & practical course 5	Elektronics 5	Automotive Engineering 5	Design and Construction & practical course 5	Circuit Design 1 & practical course 5	Robotics 5	30	
4	Power Electronics 5	Digital Signal-processing 5	Electric Drives 10		Circuit Design 2 5	Professional English 5	30	
5	Internship						30	30
6	Energy Storage 5	Automotive Electronics 5	Traffic and Telematics 5	Scientific Project 5	Microcontroller & practical course 5	Embedded Systems 5	30	
7	Bachelor-Thesis 12		Renewable Energies 7	Control Engineering & practical course 6	Elective Module 5		30	

JOBS & PROSPECTIVES

The latest laboratory building of the RWU (below) was completely dedicated to the topic of e-mobility.

People's need to be mobile is elementary and unabated. As an engineer of electromobility, it is your task to technically implement the idea of environmental protection also in the field of mobility. Rising energy costs, scarcer resources and environmental concerns prompt us to rethink our mobility concepts; new ones are therefore needed!

Electric powertrains, autonomous vehicles and smart grids will dramatically transform automotive engineering and traffic in the future. Engineers make use of these technologies in electromobility and the renewable energies to technically improve electric cars in such way that they can be used economically, comprehensively, reliably and safely. This includes the provision of the energy required by exploiting the multiple environmentally friendly sources of green energies.



STUDIES AT RWU

The studies at the Ravensburg-Weingarten University of Applied Sciences are characterised by practical training and modern, well-equipped laboratories. Students study in small groups, individually supervised by a team of highly qualified professors and assistants. Nearby dormitories and many leisure activities in the attractive landscape of Upper Swabia, close to Lake Constance and the Alps offer excellent boundary conditions and the best conditions for fun and success in study and work.



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