

A student with dark curly hair, wearing safety glasses and a white lab coat over a blue lace top, is focused on a task in a laboratory. The background is filled with various pieces of scientific equipment and a warm, orange glow from a light source. A semi-transparent blue overlay covers the bottom half of the image, containing text and the university logo.

Bachelor full-time / English
Bachelor of Science (B.Sc.)

PHYSICAL ENGINEERING (EN)



HOCHSCHULE
RAVENSBURG-WEINGARTEN
UNIVERSITY
OF APPLIED SCIENCES

AT A GLANCE



Final Degree
Bachelor of
Science
(B.Sc.)



Period of Study
7 semesters, including an
internship, full-time



Closing Dates
15 November (Summer Term),
15 July (Winter 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

Online-Bewerbung
www.rwu.de

Dean of Studies
Prof. Dr. Jörg Eberhardt
T +49 751 501-9753
joerg.eberhardt@rwu.de

PHYSICAL ENGINEERING OF TOMORROW

Our »Physical Engineering« program is characterised by a broad, interdisciplinary scientific and technical education and a combination of research, technical development and industrial application. We implement ideas, develop prototypes and equipment for industry and science – we are developers and inventors.

You

- are interested in natural sciences, technology and digitalisation,
- are looking for a special course of study that does not restrict you thematically,
- want to translate the latest research findings into prototypes and devices,
- keep the overview in the team,
- want to study successfully and have fun at the same time.

We

- teach current topics from technology, science and digitalisation,
- will provide you with individual support and accompany you throughout your studies,
- actively involve you in our ongoing research work,
- have excellent contacts to research institutions such as CERN as well as to regional and international technology companies.

STUDY PROGRAM & CURRICULUM CONTENT

Introductory Studies

»Physical Engineering« starts with the basics – with an introductory study period which takes three semesters. You will get the opportunity to enhance your German language skills in a special course related training offer. A basic level of German (A1) is required and indispensable in the beginning. A B2 level has to be reached during the introductory studies.

Advanced Studies

After that, things will be different: you will join native German students for the advanced courses, being held in German. Lectures will be replaced more and more by laboratory and practical

The proportion of international students coming from all over the world amounts to 15 % which is a quite high rate compared to other universities of applied sciences.

training. Contents will change from theoretical background to applications and technology.

Lectures and seminars in small groups ensure intensive support, focusing on project-oriented knowledge acquisition. The students get practical experience in laboratory tutorials, in an obligatory internship in the industry and an application-oriented final thesis. Due to the close contact to the global companies in Bodensee-Oberschwaben, our students are perfectly prepared to enter their professional lives.

Internship

In your sixth semester, there will be an obligatory internship. This can either be done at a company or in a research institute.

Bachelor Thesis

Your study will end with a Bachelor Thesis. Most of the students are doing it outside of the university.

SEM. MODUL OVERVIEW

ECTS

SEM.	MODUL OVERVIEW						ECTS	
1	Analysis 1 (Differential & integral calculus) 5	Physics 1 (Mechanics) 5	Lineare Algebra 5	Electrical engineering 5	Computer science & practical course 5	Chemistry 5	30	
2	Analysis 2 (Differential equations & vector analysis) 5	Physics 2 (Electrodynamics) 5	Software development & practical course 5	Electronics 1 & practical course 5	Languages 5	Construction 1 (CAD & technical mechanics) 5	30	
3	Analysis 3 (Series development & transformations) 5	Physics 3 (Optics & waves) 5	Physics 4 (Oscillations & quanta) 5	Elektronics 2 5	Materials science 5	Construction 2 (Machine structures) 5	30	
4	Physical metrology 5	Control engineering 5	Digital technologies 5	Technical documentation 5	Advanced studies (mechatronics or optics) 10		30	
5	Patents & technical project management 5	Business management 5	Modelling and simulation 5	Microcontroller & practical course 5	Advanced studies (mechatronics or optics) 10		30	
6	Internship						30	30
7	Bachelor-Thesis 15			Elective module technology 5	Elective module non-technology 5	Project 5	30	

■ Lecture subjects

■ Projects and internship

■ Thesis

JOBS & PROSPECTIVES

Unemployment rates in the region of Bodensee-Oberschwaben are negligible. The companies are desperately seeking young, qualified and motivated people.

The career prospects of our graduates are excellent. They work in various positions in development departments and research institutes. You will find employment e.g. in mechanical and plant engineering, in the optics industry, with automotive suppliers, in the aerospace industry, in software companies, in medical technology, in environmental protection and in the development of renewable energies.

After the successful completion of the studies, the title Bachelor of Science (B.Sc.) is awarded, which also gives the opportunity to acquire a Master's degree or even a doctorate.



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.

Ravensburg-Weingarten University
of Applied Sciences

Student Service
+49 751 501-9344



P.O. Box 3022
88216 Weingarten
Germany



Doggenriedstrasse
88250 Weingarten
Germany



www.rwu.de
info@rwu.de
Facebook: [rw.university](https://www.facebook.com/rw.university)
Instagram: [rw.university](https://www.instagram.com/rw.university)

HfSW
Hochschulföderation
SüdWest

