Master full-time / English Master of Science (M.Sc.)

MECHATRONICS



20

HOCHSCHULE RAVENSBURG-WEINGARTEN UNIVERSITY OF APPLIED SCIENCES

AT A GLANCE



Final Degree Master of Science (M.Sc.)





Closing Date April 15th (Winter Term)



7

Start Winter Term

KNOWLEDGE & PRACTICAL SKILLS

The importance of mechatronics

Wind turbines, airbags, quadrocopters or industrial robots - these products are good examples of the convergence of the three disciplines computer science, electrical engineering and mechanical engineering - mechatronics.

The development of mechatronic systems, however, is more than the mere assembly of subsystems or components from these areas; in fact, mechatronics means the fusion of the three disciplines from the very beginning of the development process. Interdisciplinary networked thinking and acting enables the creation of innovative products that meet the requirements of the modern industrial and information society.

Admission Requirements

Bachelor degree in mechanical or electrical engineering, computer science or similar subject. Proven English language skills (TOEFL/IELTS)

ECTS The Course of Study includes 90 Credits Dean of Studies Prof. Dr. Raphael Ruf raphael.ruf@rwu.de



Online-Application www.rwu.de

STUDY PROGRAM & CURRICULUM CONTENT

The Master's program in »Mechatronics« is designed for three semesters. At the beginning of the course, an **individual timetable** (30 ECTS per semester) is worked out together with all students, which takes into account the content of the course completed so far. This strategy is pursued further with the lecture Advanced Mathematics, which provides both a solid foundation and important tools for the further course of study.

The brains of many mechatronic systems are embedded systems, which are mainly dealt with in the second semester. Relevant topics in electrical engineering, such as sensors and actuators, power electronics and electrical drives, are also covered. The simulation and integration of mechatronic systems, as well as their regulation and control, are the subject of further lectures due to their high relevance.

Within the framework of the Scientific Project, students work on their own projects - independently and in international teams. In the third semester, the Master Thesis is completed, often in regional and national industrial companies.

The RWU is involved in numerous research projects and activities. The main focus of research in mechatronics is on mobile robotics, intelligent systems, material technologies, optical- and energy systems.

SEM MODULE OVERVIEW

1	Advanced Mathematics		Power Electronics		Advanced Engineering Mechanics		Process Interface Equipment		Simulation of Mechatronic Systems	
		10		5		5		8	5	33
2	Electrical Drives	Automation		Scientific Proje	ect	Advanced Control Systems		Special Module		
	5		5		6		5	I	8/10 Dependent on chosen event	39/41
3	Engineering Design and Materials	Master Thesis								
	5								25	30

Thesis

JOBS & PERSPECTIVES

The Lake Constance and Upper Swabia region is home to numerous innovative companies with a high demand for qualified employees. There are global players such as ZF, Airbus Group and MTU in the immediate vicinity of RWU. »Mechatronics« graduates are in high demand in the professional world. The comprehensive knowledge that combines the classic individual disciplines of mechanical engineering, electrical engineering and information technology is needed wherever complex technical systems have to be developed.

Due to the breadth of this future-oriented training, there are excellent job market opportunities in a wide variety of sectors such as energy technology, electromobility, automation technology and robotics. Furthermore, the Master's degree enables you to pursue a career in research and science and entitles you to take up a PhD.





STUDIUM AN DER RWU

Das Studium ist ein besonderer Lebensabschnitt. Gut, wenn er an einem Ort stattfindet, an dem man sich ernst- und aufgenommen fühlt. Die RWU bietet Ihnen die optimalen Voraussetzungen, Ihre Potentiale weiterzuentwickeln. In einem sicheren und ruhigen Umfeld werden Sie bei diesem Schritt ins Berufsleben zu jeder Zeit von den Professorinnen und Professoren der RWU begleitet und unterstützt. Schon während des Studiums sammeln Sie praktische Berufserfahrung und wenden das Gelernte unmittelbar an. Kurz gesagt: Sie studieren und arbeiten in einer der schönsten, sichersten und nicht zuletzt einer der wirtschaftsstärksten Regionen Europas.

Hochschule Ravensburg-Weingarten

Studierenden-Service +49 751 501-9344

e

Postfach / P.O. Box 3022 88216 Weingarten Germany

ଭ

Doggenriedstraße 88250 Weingarten Germany

0

www.rwu.de info@rwu.de Facebook: rw.university Instagram: rw.university







