

HTW
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Hochschule Konstanz

Department of Electrical Engineering
and Information Technology

Degree Program

International Engineering and
Management
Bachelor of Engineering (B.Eng.)

www.htwg-konstanz.de/iwi

International Engineering and Management (B.Eng.)

IWI

Profile development:

- Engineering & Management
- Sustainable Global Value Networks
- Digitalization Systems

Profile

Length of Studies	7 Semesters
Language of instruction	German / English
Start of Studies	WS Winter Sem SS Summer Sem.
Standard Class Size	15 (winter) 15 (summer)
Application Deadline	July 15 for WS Jan 15 for SS
Degree	Bachelor of Engineering (B.Eng.)

It is possible to complete part of your studies abroad. You can choose between the international bachelor's program or the double degree program (currently being developed). After completing your bachelor's degree, you have the opportunity to pursue a master's degree in »Engineering and Management« or »International Project Engineering«.

At a Glance

5 Reasons to Study International Engineering & Management at the HTWG Konstanz – University of Applied Sciences

1

Interdisciplinary Focus: Interface between management electrical engineering and information technology

2

International: Prepare yourself for the globalized workplace

3

Digitalization: Get qualification for the digitalized working world

4

Sustainability: Learn about sustainable management practices

5

Positive atmosphere: Engaged and enthusiastic faculty on a unique campus directly on Lake Constance



»The combination of engineering, business and culture is essential if **you want to succeed sustainably on the international market.** I



first completed a degree in China Management und then decided to do a follow-up degree in Engineering and Management at the HTWG Konstanz. I was missing the technical aspect in my first major. If I had to do it all over again, I would definitively choose the IWl program.«

Katharina Schultz

Student in Electrical Engineering and Information Technology and Management (EIW) program

»I got my bachelor's degree in International Engineering and Management at a different university of applied sciences, because they didn't have the program in Konstanz yet. The program here offers you the chance to gain professional and personal qualifications both in beautiful Konstanz, directly on the lake as well as **during a semester abroad.**«



Kerstin Holzmayr

Student in the Master's program in Mechanical Engineering and Management (MWI)

»We look for industrial engineers, because they have a **solid background in engineering combined with business skills.** Our company



needs engineers that can also deal with foreign cultures. This new program is set up exactly for these needs.«

Gebhard Kübler

Dipl. Wirtsch. Ing.(FH), Shareholder Managing Director, Fritz Kübler GmbH, Kübler Group

»I see incredible career opportunities for students in the International Engineering and Management program. They not only bring technical and management skills to the table, but also **socio-cultural and language skills for international companies.**«



David von Schwerin

Röhlig, Head of Röhlig's subsidiary in Shanghai

»Many of our business areas at Axing are international in character. You basically can't avoid crossing borders with us and **dealing with different cultures.** That's why graduates from international industrial engineering programs have the perfect qualifications to get an entry-level position in our company.«



Johannes Moser

CMO - Member of the executive board

»I'm studying Electrical Engineering and Information Technology and Management. The combination of technical and business skills along with internationalism is the perfect preparation for a professional career. The **beautiful location of the HTWG campus on the lake, the competent faculty:** If they'd had the program in International Engineering & Management when I started my studies, I definitively would have chosen it.«

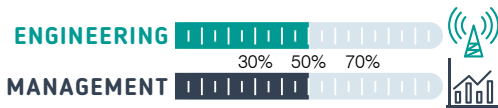


Marco Longobardi

Student in Electrical Engineering and Information Technology and Management (EIW) program

Key Facts about the Program

Interdisciplinary Focus: This program provides you with both solid technical and business skills focusing on the area of electrical and information technology. As a graduate you will be able to speak the language of both engineers and managers and will have the ideal qualifications for a job at the interface of these two areas.



The opportunity to get an international degree: We provide you with intercultural and language skills, giving the foundation for an international career. Starting from the second semester, each term you will attend at least one course taught in English. Additionally students spend one or two semesters abroad at one of our many partner universities around the world. You have the following opportunities:

A semester abroad, and/or an internship semester abroad and/or the chance to complete an English-language bachelor's thesis abroad.

You also have the option of completing a double degree program. In this new program – currently being developed – students spend two semesters abroad.

Top-level supervision: We help guide you through your studies. Students learn in small groups with an average class size of 35 students in lectures, labs and tutorials – well-supervised by professors with an open ear for student concerns, as well as tutors.

Help shape the future: Industry 4.0, self-driving cars, smart grids, new digital business models. No matter what the future brings: This program gives you the knowledge and skills you need to help forge the future of the industry during your career in a globalized economy.

Occupational Profile and Perspective

Global markets demand professional academic programs that provide students with international skills. The bachelor's degree program in »International Engineering and Management« offers exactly that. Graduates are capable of planning and leading interdisciplinary projects in an international environment.

They are also involved in, among other things, planning and executing technical projects.

These projects may be in the areas of information technology, renewable energy or electrical engineering, such as process automation.

Working in project planning and execution requires the ability to understand technical relationships, as well as business, management and intercultural communication skills. You acquire all of these skills in our program.

The demand for industrial engineers is currently high and will only continue to increase in the coming years. This means you can look forward to a secure job.

After completing a bachelor's degree in IWI, you have the option of pursuing these consecutive master's degrees:

- Engineering and Management
- International Project Engineering

Organization of Studies

This modular networked 7-semester program provides students with solid academic knowledge and skills based on both a theoretical and practical approach.

Foundation Studies		Main Studies					
1st Semester	2nd Semester	3rd Semester	4th Semester	5th Semester	6th Semester	7th Semester	
9 ECTS Consolidation of Fundamentals	5 ECTS Mathematics 2	4 ECTS Internal Accounting (EN)	5 ECTS Intercultural Competence and Int. Management (EN)	30 ECTS Integrated Practical Semester	2 ECTS Operations Research	12 ECTS Bachelor's Thesis	
	5 ECTS Object-oriented Programming (EN)		5 ECTS Project Management (EN)		5 ECTS Software Engineering		
							2 ECTS Tutoring Work
5 ECTS Mathematics 1	3 ECTS External Accounting	5 ECTS Microprocessor Systems	5 ECTS Business Controlling 2		18 ECTS The specific academic content of each profile can be found in the individual graphs: – Sustainable Global Value Networks (EN) – Digitalization Systems (EN) – Engineering and Management Topics (EN)	3 ECTS Seminar: Business Administration in Engineering and Management (EN)	
	5 ECTS Programming	2 ECTS Economics (EN)	15 ECTS Choose 3 of 4 modules: – Automation Technology – Energy Supply – Control Systems – Communication Technology			5 ECTS Business Law and Quality Management	
7 ECTS Introduction to Electrical Engineering 2		5 ECTS Introduction to Electronics				1 ECTS Studium generale	
5 ECTS Introduction to Electrical Engineering 1		5 ECTS Digital Technology					4 ECTS Planning and Organization
	5 ECTS Physics	3 ECTS Marketing					
6 ECTS Business Administration		2 ECTS Internationalization: Digitalization / Electrical Engineering					

Key

- International Focus
- Mandatory Courses
- Electives + Areas of Specialization
- Internship Semester
- Thesis
- EN

Lectures taught in english
- ECTS

European Credit Transfer System

Profile development in Sustainable Global Value Networks 6th Semester	Profile development in Digitalization Systems 6th Semester	Profile development in Engineering & Management Topics 6th Semester
6 ECTS International Procurement Management (EN)	6 ECTS Digital Control Systems (EN)	6 ECTS Area of EIW Specialization (EN)
6 ECTS Circular Economy & Green Logistics (EN)	6 ECTS System Architecture (EN)	6 ECTS Area of EIW Specialization (EN)
6 ECTS Marketing of Capital Goods (EN)	6 ECTS Distributed Systems (EN)	6 ECTS Area of EIW Specialization (EN)

IWI is a 7-semester program. We help our students' transition into the program by offering **preparatory courses** in mathematics, natural sciences, physics, electrical engineering, programming, presentation skills and English based on their needs.

The foundation studies (1st and 2nd semesters) cover mathematical, natural sciences, engineering as well as business skills.

The courses in the 3rd and 4th semester focus on the basic skills in engineering and business. The modules »Intercultural Awareness« as well as »Intercultural Competence and International Management« **raise students' awareness for intercultural issues.**

Students spend the 5th semester completing an internship, and have the option of doing this at an international company. Through **learning-on-the-job** experience, they get an idea of your future working area.

The focus is on your **individual profile** development in the second part of the main studies (6th and 7th semesters) Here you can sharpen your profile by choosing from a wide-range of engineering and business courses (»Profile Development in Engineering & Management Topics«). Or you can choose »Sustainable Global Value Networks« or »Digitalization Systems«.

Future Issues in your IWI Studies



Digitalization

Get the qualifications for the digital working world: Develop concepts, design and apply technologies – all in an international context



International

Get the credentials for working internationally: The technical, intercultural and language skills needed in the global marketplace



Sustainability

Gain the skills necessary for developing global business models and strategies that take social, economic and ecological aspects into account



Applications

You can either start your studies in the winter or summer semester.

You first need to apply for admission at our student administration services office. You can find more information about the application process at:

www.htwg-konstanz.de/en/academics/admissions/

Students are admitted based on a standard selection process.

Application deadlines:
Winter semester – July 15
Summer semester – Jan 15

A pre-study internship is not required.

Requirements

The **German Abitur degree, university qualifications (»Fachhochschulreife«) or equivalent diploma** are required for admittance to our program.

You may also apply to the program with a diploma from a **technical secondary school** or if you have obtained a relevant **master craftsman title**.

Alternative Program

If you're interested in our program, but would like to focus more on technical aspects than on international issues, we also offer a bachelor's degree in »Electrical Engineering and Management« (EIW). For more information: www.htwg-konstanz.de/eiw

Contact

For questions about the program or to set up an academic advising session, please contact:

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Student Advising
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Christine Stegmayer

Student Advising
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E-Mail christine.stegmayer@htwg-konstanz.de

Prof. Dr. Matthias Werner

Academic Dean
E-Mail matthias.werner@htwg-konstanz.de

For questions concerning your application, please contact:

Kristin Sorg

Student Administration Services
Telefon +49 7531 206-115
E-Mail kristin.sorg@htwg-konstanz.de

For general questions about studying at the HTWG Konstanz, please contact:

The Student Advising Center

Telefon +49 7531 206-777
E-Mail zsb@htwg-konstanz.de
www.htwg-konstanz.de/zsb

For more information, please go to:
www.htwg-konstanz.de/iwi

www.instagram.com/ei.htwgkonstanz

www.facebook.com/ei.htwg



HTWG Konstanz – University of Applied Sciences

The HTWG Konstanz - University of Applied Sciences is located directly on the Rhine River in the Konstanz neighborhood known as »Paradise«. We offer a complete college infrastructure, including our award-winning library and cutting-edge labs on a compact, convenient campus, making this a wonderful place to study.

At the HTWG Konstanz, we offer small classes and practically-oriented research projects. We take an interdisciplinary approach, support innovation and place a high value on internationality: This can be seen in our partnerships and exchange programs with more than 70 colleges and universities around the world.

Over 5,000 students currently pursue 20 different bachelor's and 15 master's degrees in the Architecture and Design, Civil Engineering, Electrical Engineering and Information Technology, Computer Science, Mechanical Engineering as well as Business, Cultural, and Legal Studies departments.

In addition to top-notch educational opportunities, Konstanz and the Lake Constance area offer students a wide variety of sports and leisure activities. Student dorms are located on campus, directly on the water and within walking distance from the attractive city center.

HTWG Konstanz
University of Applied Sciences

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