

Engineering Summer Schools 工科夏令营 RWTH Aachen University, Germany

Our Summer School courses in Mechanical Engineering and Management offer international students the opportunity to take part in excellent science and research at RWTH Aachen University. The University is highly acclaimed internationally for its development of innovative answers to the most pressing global challenges. It was placed 19th for Mechanical Engineering in the 2019 QS World University Rankings, making it the best German University in this field.



Applicant's Profile 申请学生介绍

The programs are specifically tailored for B.Sc./B.E. students enrolled at top universities. You need proficient knowledge of the English language and should be studying Mechanical Engineering or a related field. Ideally, you will already have completed your first academic year. The minimum age to participate is 18 years.



Application Information 申请资料和要求

Apply online and prepare the following documents until April 1st:

- Motivation Letter
- Curriculum Vitae
- Color Photo
- Transcript of Records



Quickfacts 简介

Study format	Summer School
Qualification	RWTH Certificate
Language	English
Course Fees*	EUR 1,990, 2,990 or 3,750
Duration	2, 3 or 4 weeks
Workload	60, 90 or 120 Teaching Units
All-Inclusive Package**	Housing, Catering, Public Transport, Social Events & Excursions

^{*}All Summer Schools are co-funded by the RWTH International Academy in ** All-Inclusive Package: Please visit our website for conditions & detailed information.



Program Objective 课程目标

All Summer School courses are uniquely designed for international students who want to gain insight into one of Germany's Universities of Excellence. RWTH International Academy works closely together with various institutes at RWTH Aachen to offer international students the perfect mix of technical and practical knowledge, which is enriched by cultural experiences. Students are awarded with an official RWTH certificate.

Different Courses - One Summer! 一个夏天 - 多个课程!

Choose between the following topics and broaden your engineering horizon in Germany:

Engineering

4 weeks (June 8 to July 3, 2020) **Automotive and Mobility Studies**

The program explores modern automotive technologies and concepts of mobility, including: fundamentals of vehicle physics and driving resistances, alternative concepts for the powertrain of vehicles, energy storage systems in vehicles, and the grid integration of electric vehicles.

3 weeks (June 22 to July 10, 2020) **Mechatronic Systems Engineering** and Product Innovation

Students explore fundamental issues in industrial robotics and related mechatronic systems, properties of transmission and information, the relationship between coding and the limits of information, and systematically develop a mechatronic system.

3 weeks (July 13 to 31, 2020) **Automation and Simulation**

The program covers fundamentals used in automation and simulation. In exercises and computer lab classes, students solve real world problems. As a result, methods used in mechanical engineering are tried, tested and acquired.

3 weeks (August 3 to 21, 2020) **Production Technology meets Industry 4.0**

Industry 4.0 is an initiative by the German government which promotes the integration of industrial production with information and communication technologies. The program enables students to acquire a better understanding of current and future requirements in production technology.

3 weeks (August 3 to 21, 2020) **Robotics for Future Industrial Applications**

This program is all about the engineering, controlling and programming of robots. The lectures introduce fundamental theoretical knowledge in robotics and are complemented by lab classes, in which students apply their acquired knowledge in practical projects.

Engineering & Management 2 weeks (June 29 to July 10, 2020) Supply Chain Management & Logistics

Students explore innovative supply chain management concepts, enabling them to better understand how to efficiently design the in-house and industry-wide planning and management of material, financial and information flows along the entire value creation chain.







Electrical Engineering 3 weeks (June 15 to July 3, 2020) **Sustainable Energy Technology**

The program introduces mathematical and physical basics of building energy performance modeling and simulation, the implementation of models using computer-based numerical methods, computer algebra systems and objectoriented modeling language Modelica.

2 weeks (June 29 to July 10, 2020) **Smart Electrical Power Systems**

Students receive an overview of current challenges and new technologies with regards to the future electric grid. Topics include the distribution and transfer of direct current, measurement and monitoring methods in modern power systems, as well as energy storage systems.



Fotos: Martin Braun, Hilâl Hansen-Ampah, Katja Walte





