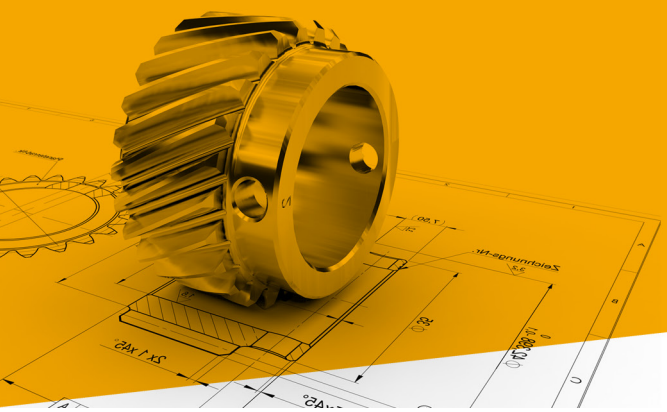
ENGINEERING SUMMER SCHOOLS



Engineering Summer Schools

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 24th for Mechanical Engineering in the 2017 QS World University Rankings, making it the best German university in this field.

Applicant's Profile

This program is specifically tailored for B.Sc./B.E. students enrolled at top universities. Applicants 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

We will evaluate applications based on the cover letter, the completion of the special requirements of each program, the overall strength of your academic record, and extracurricular experiences.

Program Objective

All Summer School courses offered by RWTH International Academy 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, as well as the University's International Office and Language Center to offer international students the perfect mix of technical and practical knowledge which is enriched by cultural experiences.

Quickfacts

Study format	Summer School
Qualification	Certificate
Language	English
Course Fees	EUR 1,990; EUR 2,990 or EUR 3,750
Duration	2, 3 or 4 weeks
Workload	60, 90 or 120 Teaching Units

*All Summer Schools are co-funded by the RWTH International Academy in cooperation with RWTH Aachen University.

INTERNATIONAL ACADEMY | RWTH AACHEN UNIVERSITY

Different Courses – One Summer!

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

Mechanical Engineering

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. A German language course complements the studies.

Agile Innovation: Product Design meets Engineering
This program provides insights into methods and processes of product innovation and development, including conventional and agile methods using rapid prototyping technologies. Students will analyze and improve a real life procut in a case study.

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.

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.

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.

Robotics for Future Industrial Applications
This Summer School 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

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.

Six Sigma Quality Management
As one of the most widespread concepts in the field of quality management, Six Sigma provides one with a framework for systematic planning and effective implementation of sustainable improvement projects along structured project management approaches.

Bringing Technological Innovation to Market: The Case of E-Mobility
The program elaborates the process of developing and commercializing technological innovation. This involves a detailed analysis of understanding and identifying customer needs and the process behind successful technological innovations.

Electrical Engineering

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.

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 object-oriented modeling language Modelica.

Civil Engineering

Structural Engineering of Industrial Facilities
This Summer School highlights the analysis and design of industrial facilities in regard to exceptional and dynamic loads, enabling students to better understand the conceptual design process of industrial structures and components.

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