Structural Engineering of Industrial Facilities

Summer School

The RWTH International Academy Summer School offers a truly dynamic and engaging academic and cultural environment for its international visitors. Through its academic summer course offer in the charming historic city of Aachen, the top-ranked RWTH Aachen University invites students to take part in state-of-the-art and hands-on approaches to technical learning at one of Europe's leading science and research institutions. Our summer courses provide a fantastic opportunity to experience what studying at RWTH Aachen University is really like.

Program Objective

The core focus of this Summer School is the structural analysis and design of industrial facilities in regard to exceptional and dynamic loads. During the conceptual design process of industrial structures and components, these dynamic loads give rise to problems that challenge the collaboration between mechanical and civil engineering. These two weeks give you an insight not only into technical but also socioeconomic aspects of today's interconnected industrial world.

Quickfacts

Study format: Summer School
Duration: 2 weeks
Workload: 60 Teaching Units
Course Fees: EUR 1,800
Qualification: Certificate
Language: English

Applicant's Profile

This program is especially designed for B.Sc./B.E. students enrolled at top universities. Applicants need proficient knowledge of the English language and should be studying Civil Engineering or a related field (Mechanical Engineering). Desirable is the completion of the first year.

Academic Staff

The Faculty of Civil Engineering of RWTH Aachen University, especially with the Chair of Structural Analysis and Dynamics (CSAD), runs the academic side of this summer program. The CSAD handles a wide range of topics from computational analysis of complex structures including finite element methods, structural dynamics and earthquake engineering, as well as modelling of functional materials and adaptive structures.

Application Information

We will evaluate the 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.

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Academic Content

Modules	Lectures (Teaching Units)	Tutorials/Labs/ (Teaching Units)
Introduction to Course Content – Structural Engineering of Industrial Facilities	4	-
Global Analysis Implementation of Structures in Industrial Facilities	4	-
Global Analysis Definition of Actions on Industrial Facilities	4	-
Global Analysis Design Scenarios	4	-
Intercultural Workshop	-	4
Identification and Modelling of Structures Typology of Structural Systems	4	-
Identification and Modelling of Structures From Buildings to Structures I	4	-
Identification and Modelling of Structures From Buildings to Structures II	4	-
Identification and Modelling of Structures Specific Components	4	-
Identification and Modelling of Structures Integration of Components in Structures	4	-
Design of Structures	4	-
Self-Management Skills for Engineers	4	-
Project Work Case Study I	-	4
Project Work Case Study II	-	4
Final Exam Presentation of the Project Work	-	4
Total	**44**	**16**