AGILE INNOVATION: PRODUCTION DESIGN MEETS ENGINEERING





Agile Innovation: Product Design meets Engineering

Engineering Winter School at RWTH Aachen University, Germany

Our Winter 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. As a result, numerous research institutions, companies, R&D departments and start-ups have settled in and around Aachen, making RWTH the ideal setting for aspiring students.



Program Objective

The core area of study of the Winter School is agile innovation. The lectures provide students with insights into cutting-edge methods and processes of product innovation and development including conventional and agile methods using rapid prototyping technologies. A case study featuring the analysis and improvement of real life products complements the program.



Academic Staff

The Winter School is conducted by the head of the Product Lifecycle Management and Virtual Product Development department of the Institute for Machine Elements and Systems Engineering at RWTH Aachen University. The research focuses on the individual life cycle phases within product development processes and beyond.



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. Completion of the first academic year is mandatory. The minimum age to participate is 18 years.



Quickfacts

Study format	Winter School
Qualification	Certificate
Language	English
Arrival	January 20th, 2019
Duration	January 21st to 30th, 2019
Departure	January 31st, 2019
Workload	50 Teaching Units



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.





Academic Content



Modules: Lectures and Exercises	Teaching Units
Strategies in Product Planning and Requirements Engineering	2
Product Disassembly and Structural Analysis	2
Requirements Analysis	2
Function Based Design	2
Functional Analysis	2
Product Architecture	2
Synthesis of Solution Principles	2
Generation of Solution Principles	2
CAD and Modelling Methods	2
Project: Engineering Design	2
Project: Engineering Design	2
Project: Engineering Design (3D Printing Ready)	3
Project: Inspection and Assembly of 3D Printed Parts	2
Scientific Documentation and Presentation	2
Project: Documentation and Presentation	5
Presentation and Show Session: Final Concepts	4
Modules: Company Visits and Culture	Teaching Units
RWTH Campus Tour	3
Info-Event with the RWTH International Academy Team	3
City Excursion to Maastricht, Netherlands	6
Sum of Teaching Units	50

RWTH Aachen University

RWTH Aachen University is one of Germany's universities of excellence. It is a place where the future of our industrialized world is thought out. The university is proving to be a popular spot with increasing international recognition where innovative answers to global challenges are developed.



