TECHNISCHE UNIVERSITÄT DARMSTADT

Virtual International Summer University

„German Engineering and Language“

May 17 – July 30, 2021*

Hessen:VASP

Picture: Katrin Binner

1200€ ****

12 ECTS
6 US Credits

Weekly
Live-Sessions

12 Weeks

The Virtual International Summer University is a unique programme designed to provide insights into cutting-edge German engineering technology, to improve international language skills as well as to discover and learn more about the German culture. It combines engineering courses, virtual company visits, intensive German language courses, cross-cultural competencies training for engineers and virtual social and cultural activities.

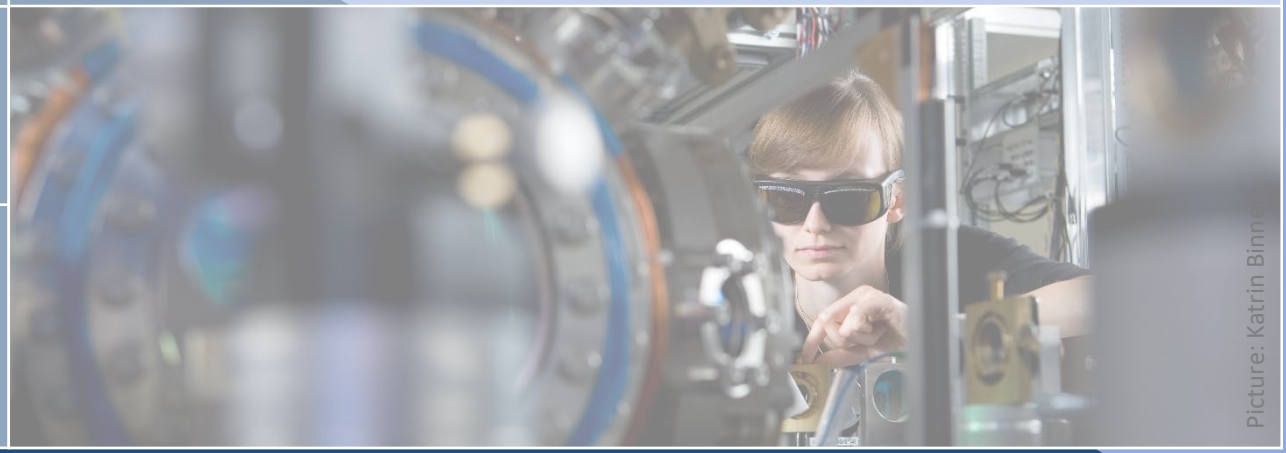
www.tu-darmstadt.de/isu

** plus one orientation week before the start*

*** (partial) scholarships available for students from partner institutions of Technical University of Darmstadt*

Engineering Courses (4 ECTS)

The various engineering courses introduce students to German engineering in the fields of Mechanical or Electrical Engineering through workshops and group projects. In the field of Mechanical Engineering, students can choose between Automotive Engineering, Aeronautical Engineering, Mechatronics and Production Engineering. In Electrical Engineering, two courses are offered: Electromagnetic Field Simulation and Microfluidics + BioMEMS. Students will also have the opportunity to gain insight into German engineering by virtually visiting various companies and university groups.

Mechanical Engineering	Electrical Engineering
Aeronautical Engineering The course deals with the design, function and operation of wind tunnels and the use of laser-based measurement techniques in fluid mechanics, aerodynamics and flight mechanics.	**Microfluidics + bioMEMS** This course gives an introduction to the field of microfluidic and microelectromechanical systems (MEMS) for a variety of applications in the biomedical sciences.
Automotive Engineering The course gives an introduction into automotive engineering by typical problems in this field.	**Electromagnetic Field Simulation** The course gives an introduction into electromagnetic field simulation. The main course aspect is the finite integration technique (FIT) which is applied on Maxwell's equations to compute numerically electromagnetic phenomena.
Production Engineering The aim of the course is to provide a deeper insight into the potentials and challenges of Industry 4.0 in the field of sheet metal forming.	
Mechatronic Engineering The course deals with the basics of mechatronic systems and the involved components. Main aspects are the functional description and modelling of mechanical elements, actuators, sensors.	

Picture: Katrin Binner

German Language Courses (6 ECTS)

German for Academic Purposes (Beginner)

☞ This online language course is designed especially for STEM-students who want to improve their prospective careers with a German language course.

👍 Here you will learn and practice:

- basic German communication skills
- essential German communication situations

in STEM-relevant contexts.

🕘 By the end of this course, you should be able to engage in basic communication situations. For students considering a semester abroad in Germany, this course may be interesting as well.

German for Academic Purposes (Beginner with previous knowledge)

☞ You already have a basic knowledge of German, are interested in STEM and are considering a semester abroad at a German university? Then this course is exactly for you!

👍 You will increase

- your knowledge of German academic life and be able to communicate with German students on a basic level

and learn

- to write basic formal emails to professors
- to practice important strategies for understanding academic texts.

🕘 If you are considering a semester abroad, this course would be an excellent way for you to begin preparation.

German for Academic Purposes (Pre-Intermediate)

☞ This pre-intermediate language course is designed to strengthen students' German speaking, writing and listening skills in an academic setting (STEM).

👍 You will be able

- to convey information and ideas on abstract as well as concrete topics
- to check information and ask about or explain problems with reasonable precision
- to reasonably fluently sustain a straightforward description of one of a variety of subjects of personal interest

🕘 By the end of the course, you should be able to communicate more effectively in an academic setting, with professors as well as with fellow students.

Picture: Katrin Binner

Cross-Cultural Competencies Training for Engineers & Social and Cultural Programme (2 ECTS)

TECHNISCHE UNIVERSITÄT DARMSTADT

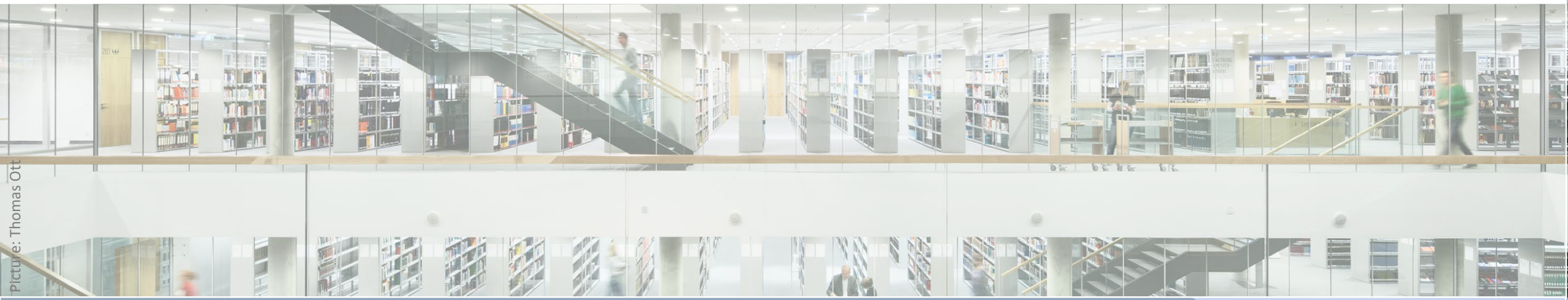
Cross-Cultural Competencies Training for Engineers

This seminar will train non-German students in intercultural skills to help them successfully navigate in an intercultural working and learning environment in Germany. It will also introduce students to practical techniques, skills and knowledge surrounding themes of living, studying and working in Germany.

The International Summer University will introduce students to practical techniques, skills and knowledge to help successfully arrange themselves within an intercultural working and learning environment throughout Germany.

Social and Cultural Programme

Expand your study abroad experience by virtually attending our social and cultural activities in and around the Rhein-Main Hessen region.



Picture: Thomas Ott

All engineering courses as well as the Cross-Cultural Competencies Training for Engineers will be held in English.

All course grades are based on continuous assessments throughout the online course.

Application Process

Students of Partner Universities of TU Darmstadt:

1. Please apply at/consult your universities' international office for (V)ISU 2021 at TU Darmtsadt. Your international office will need to send an informal nomination to summer@zv.tu-darmstadt.de
2. We will confirm a successful nomination via email. Make sure to check your emails regularly.
   Your next steps will then be:
   1. Register with TU Darmstadt
   2. Pay the Programme Fee
   3. Receive a Letter of Acceptance

Students of Non-Partner Universities:

1. Please contact summer@zv.tu-darmstadt.de to state your interest in our programme.
   - Please make sure to inform us about your home university
   - Tell us your course of study

Students of UMass System, UW System, Queensland Universities:

If you are a student from the University of Massachusetts system, the University of Wisconsin system, and participating universities in Queensland you will participate as exchange students and will not pay fees directly to TU Darmstadt. Please contact your study abroad advisor for more information on how and when to apply.

TECHNISCHE UNIVERSITÄT DARMSTADT

Technical University of Darmstadt is…

- Germany's leading university in Computer Sciences and Mechanical Engineering.
- a member of TU9 (Alliance of leading German Institutes of Technology).

…and has…

- worldwide reputation for outstanding education, research and technology transfer.

*More information on **Studying at TU Darmstadt** can be found by clicking or scanning this QR Code:*

Picture: Thomas Ott