TÜRK-ALMAN ÜNİVERSİTESİ
TÜRKISCH-DEUTSCHE UNIVERSITÄT

INFORMATION ABOUT ERASMUS+

Mechanical Engineering Department

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We welcome all Erasmus+ exchange students.

For general information please refer to the international office: http://int.tau.edu.tr/de/

Information regarding the Mechanical Engineering Program

Mechanical Engineering Program is a 4-year undergraduate program. 240 ECTS credits must be completed in 8 semesters, 30 of which are each.

Mechanical engineering is one of the most fundamental engineering branches and it deals with the design and manufacturing of all production systems. Industrial changes and developments, which have continued from the past to the present day, have dominated a wide range of mechanical engineering, from the smallest systems of atomic size to the theoretical and experimental investigation, design and implementation of systems that produce a very large amount of energy and product.

In the Department of Mechanical Engineering at the Turkish-German University, mechanical engineers will be able to conduct research at a level to create added value beyond the teaching of existing engineering principles and to provide maximum contribution to the competitiveness level of the It will be grown.

Graduates of the Mechanical Engineering Department will be engineers with strong ethical values, who are able to compete at international level, have a scientific foundation and are able to update their knowledge, think, research and produce, are responsible, can communicate easily with their environment.

Graduates who want to do master's and doctoral degree will be closer to TAU's opportunities to complete some of their education in a German research institute or a German university by taking advantage of the close cooperation with the German universities.

The courses in the Mechanical Engineering Undergraduate program will be given in **German**. The first two semesters of mathematics, computer technologies, introduction to engineering, fundamentals of mechanical engineering; In the following two semesters, they will take preparatory courses for engineering such as material knowledge and thermodynamics. In the next two semesters, the fundamentals of mechanical engineering such as manufacturing methods and control are given.

The program is also supported by social sciences and foreign language courses. Students will prepare their graduation thesis before graduation.

Department of Mechanical Engineering works with Berlin Technical University.

Program director as well as the Erasmus+ coordinator of the Program is Asst. Prof. Dr. Mehmet Gökhan Gökçen.

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Profile of the Program

Mechanical Engineering, Construction, Materials and Production, Hydromechanics and hydraulic machines and the main branches of science. The language of instruction is 100% German. With the Mechanical Engineering program, it is aimed to educate the students who have the competencies of Mechanical Engineering required by the industry and academia at international level.

Access to Further Studies

The graduates of this program can apply to master programs to enhance their academic skills and career.

Graduation Requirements

To graduate from the program, students have to successfully complete all courses in the curriculum accepted by the Senate (240 ECTS Credits) with a minimum average grade of 2.00/4.00. Additionally, compulsory internships need to be successfully completed.

Recognition of Prior Learning

Some of the lessons that the student has taken in a different program may provide exemption within the framework of the Turkish-German University Undergraduate Education-Examination and Examination Regulations.

https://www.resmigazete.gov.tr/eskiler/2017/10/20171008-3.htm (in Turkish)

Qualification Requirements and Regulations

To finish the program a student must have achieved all courses in the program, have a minimum of 240 ECTS credits and a GPA must of at least 2.00 out of 4.00.

Occupational Profiles of Graduates

The graduates of the Department of Mechanical Engineering can work in all areas of production, both classical and new technologies.

Program Learning Outcomes

Upon the successful completion of this program, students will have the:

1. Adequate knowledge in mathematics, science and related engineering discipline; the ability to use theoretical and practical knowledge in these areas in complex engineering problems.

2. Ability to identify, formulate, and solve complex engineering problems; ability to select and apply appropriate analysis and modeling methods for this purpose.

3. Ability to design a complex system, process, device or product to meet specific requirements under realistic constraints and conditions; ability to apply modern design methods for this purpose.

4. Ability to develop, select and use modern techniques and tools for the analysis and solution of complex problems encountered in engineering applications; ability to use information technologies effectively.

5. An ability to design, conduct experiments, collect data, analyze and interpret results for the study of complex engineering problems or disciplinary research topics.

6. Ability to work effectively in disciplinary and multi-disciplinary teams; individual study skills.

7. Ability to communicate effectively in verbal and written Turkish; knowledge of at least one foreign language; writing active reports and writing reports, preparing design and production reports, making effective presentations, giving and receiving clear and understandable instructions.

8. Awareness of the necessity of lifelong learning; ability to access information, to follow developments in science and technology and to renew himself continuously.

9. To act in accordance with ethical principles, professional and ethical responsibility; Information on the standards used in engineering applications.

10. Information on business practices such as project management, risk management and change management; awareness of entrepreneurship and innovation; information about sustainable development.

11. Knowledge of the effects of engineering practices on health, environment and safety in the universal and social dimensions and the problems of the era in engineering; awareness of the legal consequences of engineering solutions.

Course Structure

http://mm.tau.edu.tr/en/ogretim-plani

Academic Staff

http://mm.tau.edu.tr/en/akademik-kadro

Courses that will be offered in fall semester 2020

The studies in the program started in Fall of 2019. So there will be only second year students in the coming fall semester.

All courses are in German. (Except: Turkish, English and Ataturk's Principles and History of Turkish Revolution)

Code	Course	VL	UE	LP	ECTS	Pre-requisite
MAT103	Analysis I (Analiz I)	3	2		6	
MEC107	Konstruktionslehre I: Technisches Zeichnen und CAD (Tasarım Teknikleri I: Teknik Çizim ve Bilgisayar Destekli Tasarım)	1	2	1	6	
MEC109	Statik (Statik)	3	2		6	
INF101	Einführung in die Informatik und Programmierung (Bilgisayar Bilimine ve Programlamaya Giriş)	2	1	2	6	
MAB101	Einführung in den Maschinenbau (Makine Mühendisliğine Giriş)	2			2	
ENG101	Englisch I (İngilizce I)	3			2	
DEU121	Technisches Deutsch I (Teknik Almanca I)	2			2	
MAT201	Differentialgleichungen (Diferansiyel Denklemler)	2	2	1	6	
MAB201	Konstruktionslehre II: Konstruktion Mechanischer Bauelemente (Tasarım Teknikleri II: Mekanik Parça Tasarımı)	2	1	2	6	
MEC207	Werkstofftechnik (Malzeme Teknolojisi)	3	1		6	
MEC209	Kinematik und Dynamik (Kinematik ve Dinamik)	3	1	1	6	
GPR201	Grundpraktikum (Temel Staj)				2	
AIT001	Atatürks Grundsätze und Revolutionsgeschichte I (Atatürk İlkeleri ve İnkılap Tarihi I)	2			2	
ENG201	Englisch III (İngilizce III)	3			2	
MAT201	Differentialgleichungen (Diferansiyel Denklemler)	2	2	1	6	