

Information Sheet

Course of Study

Mechanical Engineering

General Information

Mechanical Engineering is concerned with the development and design of innovative machines, plants and equipment. The Mechanical Engineering programme is designed to ensure that students learn how to solve problems using both logic and creative and innovative approaches. The programme is characterised by a close relationship between theory and practice: A compulsory work placement and practical project work in the University's modern state-of-the-art laboratories ensure that theoretical knowledge can be put into practice right from the start. It also allows sufficient flexibility for further specialisation in areas of individual interest, such as Automotive Engineering, Laser Technology, Production Engineering or Polymer Technology.

A degree in Mechanical Engineering opens up a variety of opportunities in a wide range of sectors and areas in engineering.

Course of Study

The programme takes seven semesters to complete and is divided into different modules, which in turn are combined into groups according to the course content. Further components are a pre-study 12-week internship which has to be completed either prior to the beginning of the programme or within the first 4 semesters, as well as a practical semester (minimum 22 weeks) in semester 5.

The first group - **Fundamentals of Mathematics and Science** - is designed to lay the groundwork for the further progress of study. It combines the following modules:

- Mathematics
- Physics and Chemistry
- Computer Science for Engineers

The second group - **Fundamentals of Engineering** - provides engineering-related course content, such as

- Technical Mechanics
- Material Science
- Strength of Materials
- Machine Parts I
- Development and Design I
- Electrical Engineering I
- Dynamics of Machines
- Technical Thermodynamics
- Technical Fluid Mechanics
- Control Engineering

The third group - **Applied Engineering** - is concerned with the following topics:

- Development and Design II
- Machine Parts II
- Manufacturing Technology and Quality Assurance
- Plastics Engineering
- Electrical Engineering II
- Measurement Technology
- Energy Conversion in Engines and Machines

In the 6th and 7th semester, students may choose one of the following **areas of specialisation**:

- Automotive Engineering
- Laser Technology
- Production Engineering
- Polymer Technology

The last semester is designated for the completion of the **final research paper** (Bachelor's Thesis) which may also cover research carried out in connection with practical placement at a company.

The course of study leads to a **Bachelor of Engineering degree (B. Eng.)**.

International Office

Phone: ++49 (0)9621/482-3132, 3133 or 3131

international@oth-aw.de

www.oth-aw.de