Hochschule Kempten
University of Applied Sciences

Product Development in Mechanical and Plant Engineering

- Master of Engineering -

JOB PROSPECTS

Mechanical and plant engineering is a sustainable, internationally successful core segment of the German economy. The complexity of new products is increasing at a high rate. Highly qualified engineers are in great demand and it is very likely that they will also be sought-after in future. Thus, your job prospects will be very good after graduation from our Master's Degree Course.

WHY SHOULD YOU CHOOSE THIS COURSE

- Your results in the initial course of study were very good and you will get a higher academic degree by taking the Master's Degree Course.
- You will improve your specialist qualifications in core issues of mechanical engineering
- You are very much interested in the future topic of simulation.
- You are striving for leadership tasks or a position as a technical specialist and will expand your knowledge to include operational processes and forms of organisation.

FURTHER ADVANTAGES

This Master's Degree Course is closely interlocked with the university research projects. It can be completed either as a full-time course in three or as a part-time course in six semesters.

Extensive project work expands your competences in product development as well as in manufacturing and materials technologies.

You will strengthen your personal skills and interests by making your individual choice from the high-quality elective modules offered.

COURSE STRUCTURE

Semester 1

- Project work to obtain more profound knowledge related to the product engineering process (in cooperation with industry)
- Presentations from real life and field trips to companies in the Module Modern Products, Manufacturing, Materials and Forms of Organisation
- Alternatively, Specialisation Module Technology or Specialisation Module Economics (depending on your initial course of study)
- Choice of special technology modules, such as product-specific materials selection, engineering strength, higher mechanics or control engineering.

Semester 2

- Project work in the fields of simulation and technology, e.g. a development task using new materials of manufacturing processes using simulation methods
- Module Simulation Techniques: Overview of various simulation processes (in cooperation with industry)
- Module Physico-mathematical Solution Concepts of Simulations: analysis of physico-mathematical background processes of virtual product development or Module Design of Experiments, Modelling and Verification: Verification of simulation results by way of experiment and methodology of the design of experiments.

Semester 3

- Master's thesis in cooperation with industry or university research projects.

Lectures and courses related to core qualifications, such as communication skills and human-resource management in the Additional Competences modules.

You can take up your studies either in the winter or the summer semester:

<table>
<tr><td>Additional competences I</td><td>Additional competences II</td><td colspan="3">Master's Thesis</td></tr>
<tr><td colspan="2" rowspan="2">Project:
Simulation and Technology</td><td>Simulation Techniques</td><td>Simulation, Modelling, Experiment, Verification</td><td rowspan="2">Special Areas of Technology I, II, III, IV</td></tr>
<tr><td colspan="2" rowspan="2">Project:
Product Engineering Process</td><td>Modern Products, Manufacturing, Materials, Organisation</td><td>Specialisation Economics or Technology</td></tr>
</table>

ADMISSION

The admission requirement to the Master's Degree Course "Product Development in Mechanical and Plant Engineering" is a course of mechanical engineering, industrial engineering (mechanical engineering or information technology with business) energy and environmental engineering, or mechatronics that has been completed with at least the overall mark "gut bestanden" (good) or an equivalent diploma or bachelor's degree course with at least 210 ECTS. Furthermore, an engineering work placement of at least 20 weeks is required. Should you not yet have received your final certificate when applying for the course, you may be granted conditional acceptance.

The number of places in this course is limited. Selection of students takes place on the basis of the formal application within the specified time and of the application documents submitted as well as based on the average mark obtained in the initial course of study.

CONTACT

Course Coordinator

Prof. Dr.– Ing. Klaus Figel
E-Mail: klaus.figel(at)hs-kempten.de

International Relations Coordinators

Prof Dr Ing Thomas Garber
thomas.garber(at)hs-kempten.de
Phone +49 831 2523-221

International Office

Tel: +49 831 2523-340 or -117
E-mail: international(at)hs-kempten.de

IMPORTANT LINKS
(Information in English on our website)

www.hs-kempten.de > INTERNATIONAL > click English flag (in the top left-hand corner)

Information for international exchange students
(> INTERNATIONAL > EXCHANGE STUDENTS / INCOMING)

Study programmes – short description in English
(> INTERNATIONAL > DOWNLOADS > Study Programmes)

Guests and Visitors at Kempten University
(> INTERNATIONAL > GUESTS AND VISITORS)

KEMPTEN UNIVERSITY OF APPLIED SCIENCES

Bahnhofstraße 61
87435 KEMPTEN (Allgäu)
GERMANY
Tel: +49 831 2523-0
Fax: +49 831 2523-104
post(at)hs-kempten.de

PLEASE NOTE that, although this description is written in English, the study course is taught in German.