



STUDY ABROAD DOCS

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www.OnlineMachina.com

**(1) University of Erlangen-Nürnberg:
Advanced Materials and Processes (MAP)**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1149&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&iptuitionfees=0&ipjointdegree=&ipparttime=&ipfastrack=&ipcombined=&ipduration=0&ipp=15>

Degree

Master of Science (Hons)

Course Language(s)

The majority of courses are offered in English. German language courses accompany the programme. From the third semester onwards, students are expected to follow individual lectures/seminars in German. German and English language courses are offered.

Beginning of Programme

Winter semester (October), preparatory course in September

Programme Duration

Four semesters

First semester: lectures and seminars (depending on previous knowledge: intensive training in so far as MAP discipline (Materials Science/Chemical and Bioengineering) was not students' main field of study); Master's level courses in both disciplines

Second and third semesters: lectures, seminars and project work; students choose their focal subjects

Fourth semester: Master's thesis;

Seminars in soft skills (personal development, management and economics) will be held throughout the programme.

Application Deadline

15 January, 15 March, 15 May and 15 July (for EU citizens)

Applications for the academic year 2011/2012 will be accepted as of now.

Description of Content

New materials and advanced processes are combined to create innovative solutions.

The interdisciplinary programme Advanced Materials and Processes unites the fields of Materials Science with Chemical and Bioengineering in a fascinating way. On the one hand, technical knowledge of materials is of great importance for seminal research and teaching in Chemical and Bioengineering. On the other hand, new materials are increasingly derived from processes of particle technology. It is therefore essential to combine these two disciplines.

In this field, MAP offers four focal subjects:

Biomaterials and Bioprocessing; Nanomaterials and Nanotechnology, Computational Materials Science and Process Simulation and Advanced Processes

The focal subjects are taken starting from semester two. Students choose two out of the following four:

- Biomaterials and Bioprocessing
- Nanomaterials and Nanotechnology
- Computational Materials Science and Process Simulation
- Advanced Processes

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

42 EUR per semester

Required Entry Qualification Profile (read more)

Language Requirements

- Applicants need to be fluent in English. MAP accepts both TOEFL or IELTS (the latter with band 6.5 and above; TOEFL depending on type of test, but equally high).
- German language skills are advantageous.

Required DSH / TestDaF

No

Required English Language Test

Yes

Academic requirements

- BSc/BEng/BTech degree in Chemical Engineering, Materials Science or equivalent
- Excellent degree marks (applicants should be among the top 10% of their class)
- German language skills advantageous

**(2)University of Applied Sciences Ingolstadt / University of Applied Sciences Landshut:
Applied Computational Mechanics (ACM)**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1112&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&ipuitionfees=0&ipjointdegree=&ipparttime=&ipfastrack=&ipcombined=&ipduration=0&ipp=15>

uni link:

<http://www.haw-ingolstadt.de/en/studies/programs/computer-science-m.html>

Degree

Master of Engineering (MEng)

In Cooperation with

Landshut - University of Applied Sciences and
European School of CAE Technology

Course Language(s)

English

Beginning of Programme

Middle of September

Programme Duration

Four semesters (two years), part-time (course of study concurrent with ongoing employment)

Application Deadline

15 June, later application may be possible, if places are available, for the winter semester only

Description of Content

Modules:

Mathematics; Numerical Methods in Engineering; Solid Mechanics and Heat Transfer; Fatigue and Fracture Mechanics; Computational Dynamics; Nonlinear Computational Mechanics; Basics in Multiphysics; Advanced Simulation Techniques; Management Skills and Processes; Management of Product Development and Manufacturing; Master's thesis with colloquium

1. Semester

Theory of Computer Science, Discrete Mathematics II, Seminary on topics from computer science, technology and trends of business information systems

Major areas: Software engineering of embedded and mobile systems; Algorithms in autonomous mobile systems

2. Semester

Project, Workshop, Key Qualifications

Major areas: Cognitive systems; Communication systems; Development of safety-critical software

3. Semester

Master's thesis and colloquium

The part-time course is modular and normally has a duration of four semesters. It is structured with a total of eleven weeks and twelve weekends during the first three semesters and concludes with a self-study period. The fourth semester is reserved for the preparation and presentation of the Master's thesis.

Tuition is carried out at the universities in Ingolstadt and Landshut. The language of tuition is English. The course is subject to charges.

The Master's course is interactive, takes place in small groups and is accompanied by a computer practical.

Costs, Fees and Funding (read more)

Tuition Fees

5,000 EUR per semester

Required Entry Qualification Profile (read more)

Language Requirements

English (e.g. TOEFL ibt 80 points)

Required DSH / TestDaF

No

Required English Language Test

Yes

Academic requirements

- Degree in the area of Engineering or Natural Sciences from a German university/institution of higher education or from a "Berufsakademie" (University of Cooperative Education) in accordance with the concept of the University of Cooperative Education in the State of Baden-Württemberg, with an overall rating of "good" or higher

- aptitude test

- proficiency in English

- at least two years professional experience in the field of Engineering or Natural Sciences following university degree

(3)RWTH Aachen University: Automotive Engineering/Combustion Engines

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1315&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&iptuitionfees=0&ipjointdegree=&ipparttime=&ipfasttrack=&ipcombined=&ipduration=0&ipp=15>

Degree

Master of Science RWTH Aachen University

In Cooperation with

RWTH International Academy GmbH

Templergraben 55

52062 Aachen
Germany
Tel. +49 (0)2 41-8 09 66 55
education@rwth-academy.com
www.master-mechanical-engineering.com

Course Language(s)

English

Beginning of Programme

Winter semester - October

Programme Duration

Four semesters (two years)

Application Deadline

1 March

Description of Content

The Master's programme "Automotive Engineering" focuses on all disciplines within Automotive Systems Engineering including concept, development, design and construction and also the manufacturing process of vehicles. The knowledge obtained from ongoing research at the RWTH Aachen University is directly incorporated into lectures, seminars and workshops, thus ensuring an up-to-date and innovative curriculum.

The Master's programme "Combustion Engines" provides in-depth knowledge and understanding of energy technology, energy systems and energy-related processes. It particularly focuses on industrial R&D practice and modern energy production, conversion and distribution processes.

Course Description (read more)

Educational Organisation

The programme "Automotive Engineering" consists of compulsory and elective courses. The compulsory courses cover the fundamentals of Automotive Engineering and include lectures such as Systematic Engineering Design I, Automotive Engineering I/II, Internal Combustion Engines Fundamentals, Production Management I and others. Elective courses are chosen from a list of subjects, e.g. Manufacturing Technology I/II, Vehicle Acoustics, Mechatronic Systems in Automotive Engineering, Fundamentals of Lightweight Design or Welding Technology I.

To achieve a Master of Science in "Combustion Engines" students have to satisfy certain requirements by taking core courses, compulsory courses and elective courses. The core and compulsory courses cover the fundamentals of energy technology and include Heat and Mass Transfer, Fluid Dynamics, Internal Combustion Engine Fundamentals and Energy Conversion Machinery, Internal Combustion Engines I/II, Energy Economics and Combustion I/II, as well as Automatic Control, Alternative Vehicle Propulsion, Automotive Engineering, Piston Compressors and Engine Acoustics.

Students of both programmes, "Automotive Engineering" and "Combustion Engines", complete their programme with:

- a complementary German course
- a nine-week industrial internship
- a study-integrated mini-thesis
- a four-month Master's thesis

Costs, Fees and Funding (read more)

Tuition Fees

3,700 EUR per semester

Enrolment Fees

Approx. 195 EUR student services contribution per semester

Scholarship Link

www.rwth-aachen.de/go/id/dmb/

Required Entry Qualification Profile (read more)

Language Requirements

If you would like to take part in a Master's programme with English as the working language, you must be fluent enough in English (oral and written) to understand lectures, textbooks and manuals in English and to take part in laboratory work, industrial internships and examinations.

Therefore you must have an IELTS certificate with a score of 6.0 or a TOEFL certificate with a score of 550 paper-based/213 computer-based/80 internet-based. The TOEFL score report must not be older than two years by October of the year in which the Master's programme you are applying for will start. The original TOEFL score report must be received by RWTH Aachen University directly from the Educational Testing Service (ETS) via reporting code 8504.

Required DSH / TestDaF

No

Required English Language Test

Yes

**(4)Esslingen University of Applied Sciences:
Automotive Systems (Master of Engineering)**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=101&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&ipuitionfees=0&ipjointdegree=&ipparttime=&ipfasttrack=&ipcombined=&ipduration=0&ipp=>
15

Degree

Master of Engineering

Course Language(s)

English

A German language course will be offered during the programme (one year) at different levels, starting with an intensive course in German in September.

Students will have the opportunity to learn various languages.

Beginning of Programme

Begins: annually at the beginning of September

Programme Duration

18 months

Application Deadline

31 March of each year

Online application (www.hs-esslingen.de/hochschule/fakultaeten/graduate-school.html)

Description of Content

The Esslingen "Master of Engineering in Automotive Systems" (ASM) aims to provide students with a specialised professional qualification in sophisticated automotive systems. Students have to choose one of the three electives: Vehicle Dynamics, Software Based Automotive Systems or Car Electronics. Cross-cultural, interdisciplinary student projects

form a practical complement to the lectures. Through these, students are given the opportunity to share not only their specialised knowledge but also their cultural backgrounds in real-life working scenarios.

First semester - foundations:

- Mathematical Methods in Engineering
- System Design
- Simulation and Control 1

Second semester - advanced courses/electives:

For all electives: Simulation and Control 2

Elective "Vehicle Dynamics":

- Ride and Handling: Handling, Suspension Modelling
- Powertrain: Transmission Systems, Transmission Control and Engine Control Systems

Elective "Software Based Automotive Systems":

- Automotive Communications: Onboard and Offboard Communication Systems, Automotive Controller Development Methods and Lab Computer Simulation and Modelling
- Reliable Embedded Systems: Safety and Security, Selected Topics on Real-Time Systems

Elective "Car Electronics":

- Electric and Electronic Architecture: Electronics and Communications, Prototyping and Simulation, Optical Systems and Lab Automotive Electronic Control Circuits in Operation
- Packaging and Integration: Packaging and Wiring Harness, Automotive EMC, Electronics and Communications 2 and Lab Distributed Applications

Third semester - Master's Thesis:

In their final thesis, students demonstrate the full extent of their scientific and practical engineering knowledge of a specific subject. Master's theses can be performed individually or in a team, either at the university or, preferably, within a company. Its duration is six months, including training in soft skills.

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

Each semester, students are required to pay approx. 113 EUR as an enrolment fee.

Required Entry Qualification Profile (read more)

Language Requirements

Basic knowledge of German (200 hours) is recommended.

English language test is required (if the student is not from an English-speaking country - or if the applicant did not graduate from an English-speaking Bachelor's programme); TOEFL: 530 paper-based, 197 computer-based, **71 internet-based or IELTS test (minimum 6.0 points)**

Required DSH / TestDaF

No

**(5) Technische Universität München (University):
Computational Mechanics**

I am a student from India, but I did not take GATE, can I apply anyway?

No, applications from India without GATE results will not be considered for the Master Course in Computational Mechanics.
(uni website.....)

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=117&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&ipuitionfees=0&ipjointdegree=&ipparttime=&ipfasttrack=&ipcombined=&ipduration=0&ipp=>

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Uni : Syllabus

http://www.come.tum.de/cms/index.php?option=com_content&task=view&id=19&Itemid=35

Degree

Master of Science

Master of Science with Honours (honours programme with separate admission procedure in the first semester)

Course Language(s)

The Master's programme is taught completely in English. Nevertheless, basic German knowledge is very helpful for everyday life. Therefore, it is strongly recommended that prospective students take some German classes. German language courses to acquire the necessary vocabulary and language skills are offered at various levels by the TU München Language Centre.

Beginning of Programme

Winter semester: mid-October

Programme Duration

Four semesters (two years)

Application Deadline

Admission only for the winter semester

Non-EU applicants: 15 March for the following winter semester.

EU applicants: 15 March for the following winter semester.

Description of Content

The Master of Science programme is taught over four semesters. During the first and second semesters, the students take basic courses. During the second and third semesters, the programme is enhanced by a variety of elective courses. The fourth semester is dedicated to the thesis. It is possible for the Master's thesis to be carried out in cooperation with local industrial partners. All courses provide a sound introduction and extensive knowledge in the most important areas in the field of computational mechanics, including finite element methods, the theory of plates and shells, advanced computational methods, continuum mechanics, hydromechanics, material mechanics, structural dynamics, parallel computing, functional analysis as well as computer aided modelling and visualisation.

First Semester (mid October – mid February)			
Course	Details	Lecturer	Coursework
Compulsory Courses			
Modeling and Simulation I	2 sw 3 credits	Prof. Dr.-Ing. F. Duddeck Prof. Dr. rer. nat. E. Rank	none
Finite Element Methods I	3 sw 4.5	Dr.-Ing. R. Wüchner	midterm

Continuum Mechanics and Tensor Analysis	4 swh 6 credits	Prof. Dr.-Ing. G. Müller	presentation
Advanced Computational Methods	4 swh 6 credits	Prof. Dr. rer. nat. E. Rank	midterm
Theory of Plates	2 swh 3 credits	Prof. Dr.-Ing. K.-U. Bletzinger	midterm
Introduction to Functional Analysis	3 swh 4.5 credits	PD Dr.rer.nat.C. Pötzsche	none
Hydromechanics	2 swh 3 credits	Prof. Dr.-Ing. habil. M. Manhart	
Elective Courses			
Integral Transform Methods	2 swh 3 credits	Prof. Dr.-Ing. G. Müller M. Buchschmid	final exam
Structural Optimization 1 / Form Finding of Membranes	2 swh 3 credits	Prof. Dr.-Ing. K.-U. Bletzinger	midterm final exam
Introduction to Technical Acoustics	2 swh 3 credits	Prof. Dr.-Ing. G. Müller	
Boundary Element Methods	2 swh 3 credits	Dr.-Ing. habil. S. Lutzenberger	final exam
Computational Linear Algebra	2 swh 3 credits	Dr.-Ing. M. Ruess	
Risk Analysis 1			

Second Semester (mid April – mid July)

Course	Details	Lecturer	coursework
Compulsory Courses			
Modeling and Simulation II	2 swh 3 credits	Prof. Dr.-Ing. K.-U. Bletzinger Prof. Dr.-Ing. G. Müller	seminar papers
Finite Element Methods II	3 swh 4.5 credits	Prof. Dr.-Ing. K.-U. Bletzinger	midterm
Structural Dynamics	3 swh 4.5 credits	Prof. Dr.-Ing. G. Müller	
Theory of Shells	2 swh 3 credits	Prof. Dr.-Ing. K.-U. Bletzinger	midterm
Software Lab 1	2 swh 3 credits	Prof. Dr. rer. nat. E. Rank	
Computational Fluid Dynamics	2 swh 3 credits	Prof. Dr.-Ing. habil. M. Manhart	
Elective Courses			
Material Mechanics	2 swh 3 credits	Prof. Dr.-Ing. F. Duddeck	
Industrial Application of Structural Mechanics	2 swh 3 credits	Dr.-Ing. C. Katz	
Advanced Computational Methods 2 (Comp. Civil Engineering IV)	3 swh 4.5 credits	Dr.-Ing. S. Kollmannsberger	
Advanced Finite Element Methods/FE- Technology	2 swh 3 credits	Dr.-Ing. R. Wüchner	
Biofluid Mechanics	3 swh x credits	Prof. Dr.-Ing. W. A. Wall	
Measurements on Structures	2 swh 3 credits	Dr.-Ing. habil. H. Waubke	
Algorithms and Data Structures	3 swh 4,5 credits	Dr. rer. nat. Ralf-Peter Mundani	final exam
High Order FEM (Comp. Civil Engineering III)	3 swh 4.5 credits	Dr.-Ing. Martin Ruess	
Risk Analysis 2	3 swh 4 credits	Prof. Dr. sc. tech. D. Straub	
Computational Methods in Stochastic Dynamics	3 swh 3 credits	Dr. G. Cottone	
Structural Optimization 2/ Form Finding of Membranes	2 swh 3 credits	Prof. Dr.-Ing. K.-U. Bletzinger	
Structural Reliability Methods	2 swh 3 credits	Prof. Dr. sc. tech. D. Straub	

Turbulence Modeling	2 swh 3 credits	Prof. Dr.-Ing. habil. M. Manhart	
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Third Semester (mid October – mid February)

Course	Details	Lecturer	coursework
Compulsory Courses			
Modeling and Simulation III	2 swh 3 credits	Prof. Dr.-Ing. habil. M. Manhart	2 seminar papers
Computational Visualization	2 swh 3 credits	Prof. Dr. R. Westermann	none
Computational Inelasticity	3 swh 4.5 credits	Prof. Dr.-Ing. F. Duddeck	none
Parallel Computing	3 swh 4.5 credits	Dr. rer. nat. Ralf-Peter Mundani	final exam
Software Lab 2	2 swh 3 credits	Prof. Dr. rer. nat. E. Rank	
Elective Courses			
Industrial Applications of Structural Dynamics and Multiphysics	2 swh 3 credits	Dr.-Ing. C. Katz	oral exam
Computational Mechanics for the Automotive Industry	2 swh 3 credits	Dr.-Ing. F. Duddeck	final exam
FE Simulation für Dynamik und Multiphysics	4 swh 6 credits	Prof. Dr.-Ing. W. A. Wall	
Boundary Element Methods	2 swh 3 credits	Dr.-Ing. habil. S. Lutzenberger	final exam
Computational Linear Algebra	2 swh 3 credits	Dr.-Ing. Martin Ruess	final exam
Integral Transform Methods	2 swh 3 credits	Prof. Dr.-Ing. G. Müller	
Introduction to Technical Acoustics	2 swh 3 credits	Prof. Dr.-Ing. G. Müller	

Fourth Semester (mid April – mid July)

Master's Thesis	25 credits	at any Chair involved in
Master's Colloquium	5 credits	Computational Mechanics

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

Each semester, students are required to pay 42 EUR as an enrolment fee.

Required Entry Qualification Profile (read more)

Language Requirements

For admission to the "come.tum" programme:

- the minimum TOEFL scores are 220 (computer-based), 550 (paper-based) and 80 (internet-based);
- the minimum IELTS score is 6.0.

The Cambridge exams CAE or CPE are also accepted as proof of sufficient knowledge of the English language.

Required DSH / TestDaF

No

(6)RWTH Aachen University:
Computer-Aided Conception and Production in Mechanical Engineering

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2852&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&iptuitionfees=0&ipjointdegree=&ipparttime=&ipfastrack=&ipcombined=&ipduration=0&ipp=15>

All RWTH courses link:

<http://www.academy.rwth-aachen.de/de/content/programmes>

Course Language(s)

English

Beginning of Programme

Winter semester - October

Programme Duration

Four semesters (two years)

Application Deadline

1 March

Description of Content

The programme "Master of Science in Computer-Aided Conception and Production in Mechanical Engineering" is designed to broaden and increase the knowledge and practical use of computer-aided simulation techniques in mechanical engineering. Its particular focus is on the development and application of computer-aided methods and systems in all stages of product development from the initial conception to the manufacturing process. The programme focuses on the important principles needed to understand and to apply simulation techniques in mechanical engineering, with special emphasis on certain topics, such as design of machines and structures, or production and manufacturing.

“””The core compulsory courses for this area of specialisation include the fundamentals of structural mechanics, computational analysis, finite element methods and computer-aided design. The option "Production" prepares students to develop and to use computer-aided systems in modern industrial production, which includes manufacturing, production systems, planning, and management.”””

In contrast to other programmes, the RWTH master programme Computer Aided Conception and Production in Mechanical Engineering (CAME) addresses specifically the purposes of the practicing mechanical engineer, with emphasis on conception and production. According to your educational and professional background, we design together with you in advance of your stay with us a customized learning programme that enables you to carry out your studies according to your personal professional ideas and plans. You will be exposed to the most advanced techniques in the field, presented by internationally known specialists, in an environment focussing on your intellectual, professional and personal advancement.

Costs, Fees and Funding (read more)

Tuition Fees

3,700 EUR per semester

Enrolment Fees

Approx. 195 EUR student services contribution fee per semester

Required Entry Qualification Profile (read more)

Language Requirements

Therefore you must have an IELTS certificate with a score of 6.0 or a TOEFL certificate with a score of 550 paper-based/

**(7) Esslingen University of Applied Sciences:
Design & Development in Automotive & Mechanical Engineering**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=101&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&iptuitionfees=0&ipjointdegree=&ipparttime=&ipfasttrack=&ipcombined=&ipduration=0&ipp=>

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Degree

Master of Engineering

Course Language(s)

English

A German language course will be offered during the programme (one year) at different levels, starting with an intensive course in German in September.

Students will have the opportunity to learn various languages.

Beginning of Programme

Beginning: annually at the start of September

Programme Duration

18 months

Application Deadline

31 March of each year

Application download (www.graduate-school.de)

Description of Content

The Esslingen "Master of Engineering in Design and Development in Automotive and Mechanical Engineering" (DDM) is focused on imparting advanced knowledge and abilities in the area of design and development of complex engineering systems. It aims at enabling students to successfully deal with the various facets of modern, simultaneous engineering development projects. Besides advanced technical/scientific lectures and labs, cross-cultural, interdisciplinary student projects are part of the programme. Through these, students are given the opportunity to share not only their specialised knowledge but also their cultural backgrounds in real-life working scenarios.

First semester:

Advanced Strength of Materials:

- Light Weight Design, Advanced Finite Element Method

Advanced Materials Technology:

- Advanced Engineering Materials

- Surface Technology

- Case Studies

Integrity of Structures:

- Integrity of Structures

- Failure Analysis

Measurement and Testing Techniques:

- Vibration Acoustics Measurement

- Laboratory Vibration and Acoustics Measurement

Safety and Reliability:

- Reliability
- Design of Experiments
- Active and Passive Safety of Cars

Second semester:

Design for Manufacturing:

- Production-Oriented Product Design
- Production Life Cycle Management with Laboratory

Dynamics:

- Multi Body Systems
- Simulation of Multi Body Systems

Vibration and Acoustics:

- Vibrations
- NVH in Automotive Systems
- Laboratory Computer-Aided Vibration Analysis (CAT)

Aero and Fluid Dynamics:

- Advanced Fluid Dynamics
- Heat Transfer
- Computational Fluid Dynamics

Project Work

Third semester: Master's thesis:

In their final thesis

- students demonstrate the full extent of their scientific and practical engineering knowledge of a specific subject

Master's theses can be

- completed either at the university or, preferably, within a company

The duration is

- six months, including training in soft skills

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

Each semester, students are required to pay approx. 113 EUR as an enrolment fee.

Required Entry Qualification Profile (read more)

Language Requirements

Basic knowledge of German (200 hours) is recommended.

English language test is required ((if not from an English speaking country - or if the applicant did not graduate in an English-speaking Bachelor programme); TOEFL: 530 paper-based 197 computer-based, 71 internet-based

Required DSH / TestDaF

No

(8) University of Applied Sciences Offenburg: Energy Conversion and Management (ECM)

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=168&ipllevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&iptuitionfees=0&ipjointdegree=&ipparttime=&ipfasttrack=&ipcombined=&ipduration=0&ipp=>

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Degree

Master of Science

Course Language(s)

Courses are held in **English (approx. 60%) and German (approx. 40%)**. In the first semester, students have only English-taught courses. German language classes accompany the curriculum.

Participants can choose to write their Master's Thesis in either language.

The first and third semesters consist of lectures in core subjects and elective courses.

Attendance at core lectures is required, and students undergo continuous assessment. All course work and exams for the first semester are in English; **by the third semester, part of the coursework is in German.**

Beginning of Programme

Winter semester (October)

Programme Duration

Four semesters

Application Deadline

31 March for the following winter semester.

Applications must be submitted online via OASIS (Online Application and Screening Information System). A link to OASIS can be found at: www.fh-offenburg.de/graduate-school

Description of Content

The Master's course Energy Conversion and Management provides a broad knowledge of energy technology, energy business and energy economics.

Other important topics are project planning and development of power plants, whereby renewable energies and conventional energies are covered. The course follows a networking approach developing linkages between the different areas.

The modular structure of the programme allows students to choose among various course modules, which lead to different individual specialisation, such as Installations and Design, Management and Markets, Automotive Energy Engineering or Energy and Environment. German language classes accompany the curriculum. **Costs, Fees and Funding (read more)**

Tuition Fees

State tuition fees: 500 EUR per semester

Enrolment Fees

Service contribution: 196 EUR per semester

equired Entry Qualification Profile (read more)

Language Requirements

English: TOEFL 550+(PBT) or 213+(CBT) or 79+(IBT)

German: Level A2 (Goethe Institute)

Required DSH / TestDaF

No

(9) Karlsruhe University of Applied Sciences: Erasmus Mundus Master's Programme in Mechatronic and Micro-Mechatronic Systems

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2550&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&iptuitionfees=0&ipjointdegree=&ipparttime=&ipfastrack=&ipcombined=&ipduration=0&ipp=15>

Degree

Two Master of Science degrees in Mechatronic and Micro-Mechatronic Systems

In Cooperation with

ENSMM (Ecole nationale supérieure de mécanique et des microtechniques) Besançon, France and Universidad de Oviedo, Spain, and non-European associated members

Course Language(s)

Students spend the first two semesters at a partner institution of their choice and move for the last two semesters to another partner institution. Courses are held in the language of the respective institution, i.e. **German, French or Spanish**. Students take part in language courses throughout the entire programme.

Beginning of Programme

Winter semester - September

Programme Duration

Four semesters (two years)

(10) Karlsruhe Institute of Technology: Executive Master's Programmes at the HECTOR School, Technology Business School of the KIT

Degree

Master of Science in:

- Production and Operations Management
- Management of Product Development
- Service Management & Engineering
- Financial Engineering
- Embedded Electronic Systems Engineering
- Green Mobility Engineering

Tuition Fees

30,000 EUR tuition fee for the whole Master's programme

(11) TU Berlin University of Technology: Global Production Engineering in Manufacturing (GPE)

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=918&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangt est=&iptuitionfees=0&ipjointdegree=&ipparttime=&ipfastrack=&ipcombined=&ipduration=0&ipp=15>

Uni:

<http://www.gpe.tu-berlin.de/>

Degree

Master of Science in Global Production Engineering

Course Language(s)

Language of instruction is English.

There are optional German courses available to intermediate German level Students.

Beginning of Programme

The GPE programme starts every year in mid-October. Students are advised to arrive in early October to have time to settle in and get to know the campus and the city itself. The GPE programme can ensure accommodation starting 1 October.

Programme Duration

It takes four semesters (two years) to complete the programme. This includes the time for a nine-week internship and the Master's thesis.

Application Deadline

Online application deadline is 31 March (for details, see www.gpe.tu-berlin.de)

Please note: We only accept online applications in order to guarantee an efficient application process.

Description of Content

The GPE programme is structured in five module groups:

PRODUCTION:

This module deals with the fundamentals and methods of information processing and their industrial applications. Students will learn to evaluate the potentials of information technology for use in production systems. They will learn to plan projects for industrial information technology according to relevant decision criteria.

Basic knowledge of development, planning, execution and controlling of production systems as well as management of production plants is taught.

ENGINEERING:

The goal of this module group is to familiarise students with modern analysis and evaluation methods for thermal systems as well as principles of operation and design of the most commonly used energy conversion devices. In the laboratory, students become familiar with the operation and evaluation of internal combustion engines and gas turbines.

Modern engineering requires the replacement of traditional trial and error approaches by formal methods. This module group teaches mathematical modelling and solution techniques that lead to a clear understanding of the quantitative aspects of manufacturing processes and of their relations to resource and budget constraints, market forces, and technological innovation.

Systematic product planning and product development processes are taught. Fundamental insight into the structure of technical problems and products and guidelines for embodiment design is given.

The problem-solving process must use systemic, well-defined critical approaches, methods and models. The MTRIZ approach supplies students with very effective tools to meet these requirements.

MANAGEMENT:

This module group deals with integrated manufacturing management tasks such as planning, scheduling and evaluating of manufacturing processes and facilities. Complexity is managed by analysis and design with reference to models, including products, logistics, human resources and qualifications. Students are prepared for systematic manufacturing management and project execution in which they consider relevant decision criteria in the framework of global conditions.

The main focus of this module is company networks, their organisational structures as well as cost efficient design. Students will also learn the fundamentals of logistics.

An overview of quality management methods and techniques is provided.

INTERCULTURAL COMMUNICATION:

This module group teaches German language competence as well as communicative competence in everyday and academic life.

Intercultural management focuses on culture and intercultural learning, identifying dominant national, regional, and personal cultural profiles of the participants within a specific framework. Key principles for good communication and effective personal attributes within cultures are developed. Students learn to implement knowledge transfer in different

organisational structures in various cultures.

SPECIAL PROFILE:

This module group focuses on elements of environmental management systems, mastery of tools for environmental management systems, mastery of techniques for implementation of environmental management systems, ability to individually design environmental management systems and motivation for protecting the environment and to implementing environmental management.

The GPE-Seminar trains the ability to understand the German system of higher education. Ease in dealing with cultural differences and a comprehensive understanding of German corporate cultures and the ability to work with scientific methods are further qualification goals of the seminar.

This module group also deals with simulation as a method for analysing and evaluating the operation and design of manufacturing processes and facilities. Students will learn to efficiently use the discrete event simulation technique. Complexity is managed by analysing only relevant decision criteria.

STUDIES STRUCTURE

PRODUCTION

1. Production Technology
2. Manufacturing and Factory Planning
3. Joining and Coating Technology
4. Industrial Information Technology

ENGINEERING

1. Energy Engineering
2. Mathematical Tools for Engineering and Management
3. Systematic Product Development

MANAGEMENT

1. Global Production Management
2. Logistics
3. Quality Management
4. Supply Chain Management and Advanced Planning Systems
5. Business Administration

INTERCULTURAL COMMUNICATION

1. German for Engineers
2. Technology and Knowledge Transfer
3. Global Engineering Teams

4. Global Research for Industrial Development in Sustainability

SPECIAL PROFILE

1. Environmental Management
2. Project and Technology Management
3. Simulation of Production Systems
4. Energy Entrepreneurship & Rural Electrification
5. Lean Management
6. Fuzzy Sets
7. Enterprise Architecture and IT in the Automotive Industry
8. Thermal Design of Compression and Refrigeration Machines
9. Inventive Problem Solving Theory TRIZ
10. GPE Seminar

Academic requirements

Bachelor of Engineering or equivalent qualification

A good TOEFL score (computer-based 213, paper-based 550, internet-based 86)/IELTS (6.5)

There are far more applicants than available places in the GPE programme. We will admit only the best applicants for the programme, so competition is very strong. Further selection criteria will be:

- excellent grade point average in previous studies
- good result in Graduate Record Examinations (for details see www.gre.org)
- TOEFL or IELTS score above the prerequisite
- basic German proficiency
- professional experience in relevant fields

Costs, Fees and Funding (read more)

Tuition Fees

13,900 EUR for the complete programme

Enrolment Fees

235 EUR per semester, including a public transport ticket for Berlin (and periphery) and administration fees

**(12) TU Berlin University of Technology:
Global Production Engineering in Solar Technology (GPE)**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1731&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&ipuitionfees=0&ipjointdegree=&ipparttime=&ipfasttrack=&ipcombined=&ipduration=0&ipp=>

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Degree

Master of Science in Global Production Engineering for Solar Technology

Course Language(s)

Courses are taught in English; possibility of elective German language courses

Beginning of Programme

Annually in mid-October

Programme Duration

The entire Master's programme takes 2 years (4 semesters) including a one-semester thesis and a nine-week internship.

Description of Content

The subject range has been tailored to match the wide needs of solar business, addressing the massive demand for qualified engineers in the fields of production, engineering and management. The GPE Solar programme covers the entire spectrum of value creation: from production technology for the manufacture of solar-technology components to planning, installing and operation of solar systems together with management, financing, law and marketing. Students can choose to specialise in production, engineering or management and market development.

Brief specification of GPE Solar:

- Two-year Master's degree programme in solar technology
- Photovoltaics and solar thermal energy
- Production technology, system engineering, management and market development
- Instruction from leading international lecturers and industry experts
- Individually-structured curriculum
- Emphasis on practical learning through close alliances with businesses
- Excellent career prospects

Course Structure

The GPE Solar programme is structured in five module groups: Production, Engineering, Management, Intercultural Communication and Special Profile.

A) Production

- Manufacturing and factory planning
- Production technology
- Joining and coating technology
- Industrial information technology
- Manufacturing technologies for collectors and components
- Cell technology and manufacturing

B) Engineering

- Mathematical tools for engineering
- Components for PV systems
- Design and installation of grid-connected and stand-alone PV systems
- Components for solar thermal systems
- Solar thermal systems for water and space heating; solar cooling

C) Management

- Global production management
- Quality management
- Business administration
- Market development of solar technology
- Project management for solar technology

D) Intercultural Communication

- German for engineers
- Technology and knowledge transfer
- English for solar engineers

E) Special Profile

- Solar-system integration and energy efficiency
- Project and technology management
- Energy entrepreneurship
- PV-module recycling
- Certification

Costs, Fees and Funding (read more)

Tuition Fees

13,900 EUR for the complete programme ...around 9 lacks rs.

Enrolment Fees

235 EUR per semester, including a public transport ticket for Berlin (and periphery) and administration fees

Required Entry Qualification Profile (read more)

Language Requirements

TOEFL with a minimum score of 213 (computer-based), 550 (paper-based), 86 (internet-based)

IELTS with a minimum score of 6.5

Required DSH / TestDaF

No

**(13)Ravensburg-Weingarten University of Applied Sciences:
International Master's Programme in Mechatronics**

Attachment==13

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=404&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&iptuitionfees=0&ipjointdegree=&ipparttime=&ipfastrack=&ipcombined=&ipduration=0&ipp=15>

uni: <http://www.hs-weingarten.de/web/willkommen/startseite>

than select language and go for master prog and lastly select "Mechatronics"

Degree

Master of Science in Mechatronics

Course Language(s)

The course language is English. In addition, German courses are offered at different levels.

Beginning of Programme

Regular lectures begin on the first Monday in October. However, in September an "Orientation and Welcome Programme" as well as preparatory courses and a German intensive course are on offer.

Programme Duration

Three semesters

Application Deadline

15 April (online), see: www.msc.hs-weingarten.de

Description of Content

First semester (MM1)

- Advanced Mathematics for Engineers
- Electrical Drives
- Engineering Design and Materials
- Engineering Mechanics
- Integration of Mechatronic Systems
- Power Electronics
- Process Interface Equipment
- Simulation of Mechatronic Systems

Second semester (MM2)

- Automation
- Advanced Control
- Microsystems and Materials
- Robotics
- Lab on Robotics
- Lab on Process Interface Equipment
- Research Project
- Scientific Project
- Working in International Scientific Project Teams

Third semester (MM3)

- Optional Modules
- Master's thesis

The minimum number of ECTS credits required for MM1 to MM3 is 90.

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

93 EUR per semester

Costs of Living

In order to obtain a visa for Germany, international students must prove that they have approx. 600 EUR per month at their disposal. However, life in Ravensburg-Weingarten is much less expensive than in the big cities, so one can live on only 450 EUR to 500 EUR per month. Monthly rent in halls of residence varies from 150 EUR to 280 EUR; most students spend no more than 220 EUR on accommodation.

Scholarship Link

www.bw-stipendium.de

Required Entry Qualification Profile (read more)

Language Requirements

Very good knowledge of the English language (e.g. TOEFL paper-based 560, computer-based 220, iBT 80 or IELTS Band 6,5-7)

Required DSH / TestDaF

No

Required English Language Test

Yes

Academic requirements

Diploma or Bachelor's degree in Mechanical Engineering, Electrical Engineering, Mechatronics, Applied Physics or Computer Science. A minimum amount of 210 ECTS credits (corresponds to seven semesters with 30 credits) obtained in any previous Bachelor's study is required.

(14) Hamburg University of Technology: Joint European Master in Global Innovation Management (GIM)

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2233&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&iptuitionfees=0&ipjointdegree=&ipparttime=&ipfasttrack=&ipcombined=&ipduration=0&ipp=15>

Attachment 14

Degree

Master of Science

In Cooperation with

The Master in Global Innovation Management is offered jointly by Hamburg University of Technology (TUHH, in German: Technische Universität Hamburg-Harburg), Germany; University of Strathclyde, Scotland; Aalborg University, Denmark; Swinburne University of Technology, Australia.

Course Language(s).....GIM is taught entirely in English.

In addition, German language courses on various levels are offered before and during the programme.

Beginning of Programme

Winter semester - September

Programme Duration

Four semesters (two years)

Application Deadline

7 January for non-European applicants applying for an ERASMUS Mundus scholarship

7 May for European applicants applying for an ERASMUS Mundus scholarship

Description of Content

Semesters one and two at the University of Strathclyde provide a strong foundation in the Innovation Management process and essential practical experience of working within globally distributed teams and with industrial clients on product/service development briefs.

Semester three (in year two) at Technische Universität Hamburg-Harburg (TUHH) looks at early and late phases of the innovation management process. It concentrates on market research for radical innovation, cross functional cooperation at the front end of the innovation process, managing innovation projects over geographical and functional/divisional borders and preparing the market introduction of new products and services.

In semester four, students undertake a thesis project, jointly supervised by staff from TUHH and Strathclyde.

Alternatively, in semester three (in year two) students can choose either to take courses at Swinburne University of Technology/Australia or they go to Aalborg/Denmark where they - under the supervision of Aalborg University - undertake an industrial internship at a Danish company to gain relevant work experience in global innovation management, and to consolidate the course content taught at the University of Strathclyde.

In year one at Strathclyde, students take the following compulsory classes:

- Innovation Management
- Strategic Technology Management
- Design Management
- Design Methods
- Supply Chain Management
- Manufacturing and Business Strategy
- Product Development Project
- Global Design

A further two optional modules from the following:

- People Organisation & Technology
- Design for Manufacture and Assembly
- Total Quality & Continuous Improvement
- Product Branding and Promotion
- Product Development Project

Teams of students will be formed to tackle a product development project which is initiated by an industry client brief, right through to the building and testing of a prototype product. The teams consult with their client throughout the project and present the final solution to them.

Global Design (Project Module)

The content of the curriculum is delivered to students covering key aspects and tools for participation in and management of distributed design projects. Student teams then collaborate with corresponding teams of students based at a foreign institution on a product development project supported by the relevant communications and project management

technology and techniques. Students can expect to work with others from institutions in the USA, Australia and other global locations.

In year two, students take compulsory classes in semester three at Technische Universität Hamburg-Harburg, e.g.

- Technology & Innovation Management
- Marketing for Innovation
- Managing International Team-Based Product Development
- International Business Management

Managing International Team-Based Product Development (project)

This TUHH module provides students with further work experience within a team on a product development brief set by an industry-based client and broadens the global perspective on the project based within German industry.

In year two at Aalborg, the Industrial Placement in semester three involves working on a topic and finding theoretical support for it through self-study. The internship is documented in a report (practical write up, including a report to the company, theoretical support for the practical aspects, and personal experiences and evaluation). Completion of the internship equips participants with a number of further skills required for the Master's thesis in semester four.

In year two at Swinburne University of Technology students develop skills in entrepreneurship and innovation.

Costs, Fees and Funding (read more)

Tuition Fees

The current full two-year programme fee for students originating from outside the European Union is 22,000 EUR.

Required Entry Qualification Profile (read more)

Language Requirements

An appropriate level of competence in the English language, through attaining IELTS 6.5 or TOEFL 600 (paper-based), 250 (computer-based), 100 (internet-based)

Required DSH / TestDaF

No

(15) Technische Universität München (University): Master of Science in Aerospace Engineering

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1950&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=&ipuitionfees=0&ipjointdegree=&ipparttime=&ipfasttrack=&ipcombined=&ipduration=0&ipp=>

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Educational Organisation

The first three semesters comprise all theoretical modules and will be held in Singapore together with the partner university Nanyang Technological University (NTU). The last semester includes the mandatory six-month Master's thesis.

Costs, Fees and Funding (read more)

Tuition Fees

The tuition fee is 35,000 SGD plus Goods & Service Tax (GST) for the 24-month programme.

Enrolment Fees

The enrolment fee is 50 SGD.

equired Entry Qualification Profile (read more)

Language Requirements

Sound language skills in English:

- TOEFL: recent TOEFL score indicating a minimum of 580 for paper-based test or 80 for internet-based test
- IELTS: academic IELTS result of at least 6.5

Required DSH / TestDaF

No

(16)University of Applied Sciences Bonn-Rhein-Sieg: Master of Science in Autonomous Systems

Degree

Master of Science in Autonomous Systems

Course Language(s)

The programme is taught entirely in English. The university has a language centre where students can take additional courses in German or other European languages at their own discretion.

Beginning of Programme

The academic year is divided into two semesters. The winter semester starts in September and the summer semester in March.

Programme Duration

The programme covers four semesters (two years) in which a total of 120 ECTS (European Credit Transfer System) points are accumulated. The first semester consists of coursework and a seminar, and is aimed at familiarising students with various robotics-related topics and at introducing them to the state of the art in topics selected by the students themselves.

The second and third semesters contain both coursework and project work. Each semester, 15 ECTS points are awarded to the research and development projects. These projects are presented and documented in a report by each student. An additional 15 ECTS points are awarded for the coursework.

In the fourth semester, students research and write their Master's thesis. A final defence of the thesis completes the 120 credits requirement.

Application Deadline

For international students:

For the winter semester: 1 **December of the year before the semester starts**

For the summer semester: 1 June of the year before the semester starts

Description of Content

Autonomy, adaptability and network integration are characteristic features of complex IT systems. Conventional control systems and architectures are no longer adequate to realise the potential of these technologies completely, nor are they sufficient to master the complexity of such systems. The solution is to design selected components as "autonomous systems" which can act mainly by themselves without external control most of the time. In this context, autonomous mobile and biomimetic robots constitute the forefront of development.

The international programme "Autonomous Systems" offers multi-faceted training in the fields of artificial intelligence and robotics, spanning a whole range of issues involved in the field. Topics covered include, but are not restricted to, autonomous agents, robot control architectures, navigation and control of mobile robots, learning and adaptivity, computer vision, real-time systems, distributed systems, sensor networks, micro-controller programming, and design and implementation of embedded systems.

The four-semester programme aims to challenge talented, motivated and dedicated students, and involves course work as well as project work. A large portion of the programme, including the preparation of the Master's thesis, involves research and development projects.

The project work portion takes the form of two R&D projects and a final thesis project. The programme's affiliation with the Fraunhofer Institute, one of the leading research institutes in Germany and the largest organisation for applied sciences in Europe, provides an unparalleled opportunity for students to pursue extensive practical training in projects at the cutting edge of the field. These projects may also be carried out in a number of other broader research efforts at the university. This helps to ensure a high-quality education in the field, and also offers problem-oriented training in soft skills such as project management and presentation.

Presentations by leading international guest speakers are scheduled regularly and help to further expose students to the state of the art in a wide variety of robotics-related fields. The number of places per semester is limited to 25 candidates only, thus ensuring the admitted students a high-quality education. An extraordinary level of commitment, pro-activeness, self-discipline and the ability to work well under pressure are expected of candidates.

Costs, Fees and Funding (read more)

Tuition Fees

In pursuit of academic excellence and the highest possible calibre of the best applicants from all over the world, the programme charges nominal fees. The tuition fees are 500 EUR per semester.

Required Entry Qualification Profile (read more)

Language Requirements

Candidates whose language of instruction for their academic degree was not English, and for whom English is not their native language, must document their proficiency in English. A minimum TOEFL score of 557 paper-based or of 220 computer-based or of 83 internet-based is accepted. The TOEFL code for the university is 7977 ("Fachhochschule Bonn-Rhein-Sieg"). Alternatively, a minimum IELTS score of 6.5 is accepted. No German language skills are required for the programme.

Required DSH / TestDaF

No

(17)FH Aachen - University of Applied Sciences:

Master of Science in Biomedical Engineering, Energy Systems, or Nuclear Applications

Note : all subjects are related to biology

(18)Technische Universität München (University):

Master of Science in Power Engineering (MSPE)

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2757&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&ip>

[tuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15](#)

Uni:

http://www.mspe.ei.tum.de/index_html

Degree

Master of Science (MSc) in Power Engineering

Course Language(s)

All courses are held in English. Elective courses in other languages as well as language courses are available.

Beginning of Programme

Winter semester - mid-October

Programme Duration

Four semesters (two years)

Application Deadline

15 March for the following winter semester

Description of Content

The Master's Programme Power Engineering focuses on power plant technology and power generation. It comprises disciplines from both electrical and mechanical engineering. In the programme, both "traditional" energy technologies such as coal and oil and "modern" ones such as renewable energy technologies are covered.

In the first semester, fundamentals in electrical and mechanical engineering are taught, including thermodynamics, energy systems and economy, and high voltage technology. A lab in energy systems is included.

The second and third semesters comprise mandatory and elective courses including subjects such as renewable energy technologies, thermal processes, energy storage, and civil engineering. In addition, interdisciplinary subjects and seminars are part of the programme. Students also carry out a nine-week research internship at one of the participating institutes in the second or third semester.

The programme is concluded with the Master's thesis which is completed at one of the institutes during the fourth semester.

Curriculum

Compulsory Subjects

Semester	Course Name	Professor	ECTS-Credits
1	Thermodynamics in Energy Conversion	Spliethoff	4
1	Electrical Machines and Power Electronics	Herzog, Kennel	6
1	High Voltage Technology	Kindersberger	4

Semester	Course Name	Professor	ECTS-Credits
1	Energy Systems & Energy Economy	Hamacher	4
1	Advanced Control	Lohmann	5
1	Dynamics of Mechanical Systems	Ulbrich	5
1	Renewable Energy Technology I	Spliethoff	3
2	Renewable Energy Technology II	Spliethoff	3
2	Thermal Power Plants	Spliethoff	7
2	Thermal Separation Processes	Klein	5
2	Fluid Machinery	Kau	5
2	Energy Storage	Herzog	3
3	Power Transmission Systems	Witzmann	3
3	Civil Engineering in Energy Technology	Mensinger, Vogt	3

Compulsory Optional Subjects (8 ECTS Credits required)

Semester	Course Name	Professor	ECTS-Credits
2	Combustion Engines	Wachtmeister	5
2	Fuel Cells in Energy Technology	Stimming, Bund	3

Semester	Course Name	Professor	ECTS-Credits
2	High Voltage Insulation Technology	Kindersberger	3
2	Power Generation Lab	Hamacher	3
3	Laboratory Course on Energy Systems	Spliethoff	4
3	Integration of Renewable Energies	Hamacher	3
3	Nuclear Energy	Macián-Juan	5
3	Laboratory Course on High Voltage Technology	Kindersberger	3

Seminars (3 ECTS credits required)

Semester	Course Name	Professor	ECTS-Credits
2 / 3	Seminar on Energy Systems and Energy Economy	Hamacher	3
2 / 3	Seminar on Digital Simulation of Energy Systems	Herzog	3
2 / 3	Seminar on High Voltage Technology	Kindersberger	3
2 / 3	Seminar on Power Transmission	Witzmann	3
2 / 3	Seminar on Intelligent Methods in Mechatronics	Kennel	3
2 / 3	Seminar on Thermal Energy Systems	Spliethoff	3

Optional Subjects (7 ECTS Credits required)

Semester	Course Name	Professor	ECTS-Credits
2	Non-technical Requirements in the Engineer's Profession	Ihsen	3
2 / 3	Principles of Project Management	Zimmermann	3
3	Engineering Management	Feicht	3
3	Gas Supply Chain	Hamacher	2
3	Optimisation of Power Plant Portfolios in Liberalised Markets	Hamacher	3

Up to four ECTS credits can also be brought in by taking arbitrary subjects at the faculty for electrical engineering and information technology or the faculty for mechanical engineering.

*SPW: semester periods per week (lecture / tutorial / lab course)

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester (standard fee at the Technische Universität München)

Enrolment Fees

The TUM administers a student union fee of 42 EUR per semester.

There is no application fee for the MSPE programme.

Required Entry Qualification Profile (read more)

Language Requirements

For non-native speakers, proof of proficiency in the English language has to be provided.

If your complete education has been conducted in English, the language test can be replaced by an official certificate from your university confirming that the language of instruction was English.

If you went to school in Germany, proof of language ability is also possible with good results in the German Abitur. The minimum score for admission is 10 out of 15 in a Leistungs- or Grundkurs in English.

TOEFL: The minimum score required for admission is 80 (internet-based), 215 (computer-based), or 560 (paper-based) respectively. The TUM-wide institution code is 7806. More information can be found at www.toefl.org.

IELTS: The minimum score required for admission is 6.0. More information can be found at www.ielts.org.

An examination of the Cambridge main suit of English (CAE or CPE) is also accepted. More information can be found at www.cambridge-efl.org.

A GRE test (www.gre.org) is not mandatory. However, if you have passed the test, you are recommended to enclose a certified copy of your test results.

Required DSH / TestDaF

No

**(19)University of Applied Sciences Offenburg:
Master's Programme Process Engineering**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2190&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science

The degree allows direct admission to PhD programmes at German or foreign universities. It also entitles graduates to a higher level career as a civil servant.

In Cooperation with

The Master's Programme Process Engineering is a cooperation between the University of Applied Sciences Offenburg and the University of Olsztyn in Poland.

Course Language(s)

Language of instruction: English

A voluntary German language course is offered at Offenburg University in September.

Beginning of Programme

Consecutive students from affiliated Bachelor's programmes can be admitted to the MPE programme in both the summer (March) and the winter semester (October). External students requiring visa can only start in the winter semester.

Programme Duration

The programme takes one and a half years, i.e. three semesters. The lectures and laboratories of each winter semester (October to February) are held in Offenburg, those of each summer semester (March to August) in Olsztyn. The third semester is reserved for completion of the Master's thesis.

Application Deadline

Applications are to be submitted online via OASIS (Online Application and Screening Information System). A link to OASIS can be found at: www.fh-offenburg.de/graduate-school.

Deadlines:

- for the following winter semester: 31 March for applicants requiring visa, 15 July for others
- for the following summer semester: 15 January only for applicants not requiring visa

Description of Content

The objectives of the course are application-oriented advanced engineering and natural sciences, as well as the promotion of team-oriented work. In Offenburg, the emphasis lies in the area of **chemical, biological and thermal engineering**. The education in Olsztyn deepens knowledge in the areas of environmental techniques and bio-analytics. The lectures and seminars are accompanied and supplemented by extensive laboratory work.

According to personal interests, elective modules can be chosen in the areas of bioprocess engineering or thermal treatment. By means of these elective modules in addition to the compulsory ones, almost all important fields of process engineering are covered, namely in the areas of chemical, environmental and bioengineering.

For more details please check the Study and Examination Regulations (StuPO), and the Module Handbook on our homepage, both in English, but momentarily available only in the German version, under "Studium", and there under "Studien- und Prüfungsordnungen (STuPO)/ Modulhandbücher".

Costs, Fees and Funding (read more)

Tuition Fees

State tuition fees: 500 EUR per semester

Required Entry Qualification Profile (read more)

Language Requirements

Applicants must provide proof of their English skills. English: TOEFL (minimum 550/213/79) or IELTS (minimum 6.0). Exemptions can be made for students whose previous academic education or professional activities were mainly in an English-language environment.

Required DSH / TestDaF

No

(20)Brandenburg University of Technology:

Power Engineering

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=799&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Attachment==20 (Whole syllabus)

Degree

Master of Science in Power Engineering

Course Language(s)

English

Beginning of Programme

Beginning of October each year

Programme Duration

Two years

Application Deadline

1 June; documents still missing at this time may be submitted by 15 July if the main application is submitted before the deadline (1June).

Description of Content

The primary goal of this programme is to enhance the European effort to increase energy efficiency and develop alternative energy forms. The Master's course covers the entire spectrum of electrical engineering technology.

Costs, Fees and Funding (read more)

Tuition Fees

None

Enrolment Fees

Students are required to pay an enrolment fee of currently 217.45 EUR per semester. This includes free public transport in the State of Brandenburg and in Berlin as well as a train connection to Dresden.

(21)RWTH Aachen University: Production Systems Engineering

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1316&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science RWTH Aachen University

In Cooperation with

RWTH International Academy GmbH

Templergraben 55

52062 Aachen

Germany

Tel: +49 (0)2 41-8 09 66 55

education@rwth-academy.com

www.master-mechanical-engineering.com

Course Language(s)

English

Beginning of Programme

Winter semester - October

Programme Duration

Four semesters (two years)

Application Deadline

1 March

Description of Content

The programme "Master of Science in Production Systems Engineering" builds upon the student's existing qualifications and facilitates a deepening of the knowledge in materials and manufacturing processes, process and product engineering, management and manufacturing system design as well as manufacturing competitiveness. In addition, leadership and team skills and effective communication will be strengthened.

Compulsory subjects cover the fundamentals of the chosen specialisation. These include: Systematic Engineering Design I & II or two other combinations of two English-taught courses. For the elective subjects students can choose from one of several possibilities in the fields of Logistics, Welding Fabrication Process, Virtual Machine Tool, Advanced Software Engineering, Tribology, Production Metrology, Modelling or Mechatronic.

Course Description (read more)

Educational Organisation

The programme "Master of Science in Production Systems Engineering" is structured in compulsory and elective courses. The core compulsory courses cover the fundamentals of Production Engineering, and include lectures such as Automatic Control, Welding Fabrication Processes I, Manufacturing Technology I & II, Machine Tools I & II, Production Management A & B, Quality Management as well as Industrial Engineering and Ergonomics & Work Organisation.

The elective courses can be chosen from a catalogue of subjects and provide the opportunity to specialise in multifaceted directions within the field of production engineering.

Additionally, for an introduction into industrial employment, an internship of nine weeks has to be done followed by a mini-thesis and finally a Master's thesis with a duration of four months at the end of the studies.

Costs, Fees and Funding (read more)

Tuition Fees

3,700 EUR per semester

Enrolment Fees

Approx. 195 EUR student services contribution fee per semester

The fee includes a semester ticket covering public transport in North Rhine-Westphalia.

Required Entry Qualification Profile (read more)

Language Requirements

If you would like to take part in a Master's programme with English as the working language, you must be fluent enough in English (oral and written) to understand lectures, textbooks and manuals in English and to take part in laboratory work, industrial internships and examinations.

Therefore you must have an **IELTS certificate with a score of 6.0** or a TOEFL certificate with a score of 550 paper-based/213 computer-based/80 internet-based. The TOEFL score report must not be older than two years by October of the year in which the Master's programme you are applying for will start. The original TOEFL score report must be received by RWTH Aachen University directly from the Educational Testing Service (ETS) via reporting code 8504.

Required DSH / TestDaF

No

(22)Kiel University of Applied Sciences / University of Applied Sciences Flensburg: Wind Engineering (Master of Science)

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2634&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science

In Cooperation with

Flensburg University of Applied Sciences

Course Language(s)

Courses are held in English, Master thesis either language

Beginning of Programme

Winter Semester - September

Summer Semester - March

Programme Duration

Three semesters - 18 months

Application Deadline

Winter Semester: 15 July

Summer Semester: 15 January

Description of Content

Master of Science (MSc) in Wind Engineering

The Wind Energy Industry contains companies and businesses with very high growth

potential.

On initiative of CEwind, the Center of Excellence for Wind energy Schleswig-Holstein, the course is held by the faculty of six Universities: The Department of Engineering of the Christian-Albrechts State University at Kiel, the University of Flensburg, the engineering departments of the Universities of Applied Sciences of Kiel, Flensburg and West Coast as well as the private Nordakademie.

The Master's Course in Wind Engineering covers subjects in the fields of Mechanical and Electrical Engineering, Business Economics and Environmental Sciences. All lectures are complemented with extensive hands-on training on commercial up-to-date software systems.

The Master's course in Wind Engineering comprises of three semesters. All lectures, laboratory training, project works and examinations are held in English. The course is taught on a modular basis. The study is held on two Campuses, Flensburg and Kiel. The summer lectures are held in Flensburg, the winter lectures take place in Kiel. It is possible to start the study either at the Flensburg Campus in summer or at the Kiel Campus in winter. The first two semesters are interchangeable.

Graduates of this course will find a wide range of opportunities and openings in wind turbine and component manufactures, engineering and consulting firms, banks and insurance companies, public authorities, wind farm businesses and research institutions.

Course Description (read more)

Educational Organisation

Winter Semester:

a) mandatory

- Grid Integration and High Voltage
- Generator and Power Electronics
- Control Systems and Automation
- Environmental Science

b) optional

- Advanced Wind Turbine Systems
- Off-Shore
- Advanced Engineering Mathematics
- Measurement and Certification
- Business Economics

Summer Semester:

a)

- Noise & Vibration
- Structural Strength & Materials
- Aerodynamics and Aeroelastics
- Sustainable Energy Systems
- Shaping Sustainable Energy Systems
- Power Train Components
- Applied Environmental Science
- External Costs of Energy
- Trading Energy

Costs, Fees and Funding (read more)

Tuition Fees

None

Enrolment Fees

Approx. 150 EUR

Required Entry Qualification Profile (read more)

Language Requirements

Toefl - paper based: 500,.....iBT 60..... only for non-native English-speaking students.

Required DSH / TestDaF

No

**(23)FH Aachen - University of Applied Sciences:
Aerospace Engineering**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1459&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Description of Content

The three-semester course of study with the major field in Aeronautical Engineering and Astronautical Engineering imparts the methods and techniques of the Aerospace Engineering field.

Educational Organisation

During the first and second semesters, students deepen their basics in Engineering Sciences and widen their specialised knowledge in fields like Environmental Problems of Aeronautical Propulsion, Dynamics of Flight/Flight Control, Transonic Aerodynamics, CFD Applications, Actuator Systems, Aircraft Design, Propulsion Design, Space Environment/Simulation, Space Mission Analysis and Design 1, Advanced Space Dynamics, Hybrid Spacecraft Propulsion, Space Mission Analysis and Design 2, Atmospheric Entry Technology as well as Space Utilisation and Technology. In the third semester students will have the chance to develop their soft skills and do their research for the Master's thesis.

Collaboration with selected outstanding partners from industry and research institutions is one of the unique characteristics of this course.

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Required Entry Qualification Profile (read more)

Language Requirements

Proof of English language ability by e.g. TOEFL (550 paper-based test, 213 computer-based test, 79 internet-based test) or IELTS 6.0 overall band score.

Applicants who did not acquire their study qualification at a German-language university have to prove their proficiency in Germany before beginning their studies at the AcUAS through a Goethe-"Zertifikat Deutsch"-certificate - B1.

Required DSH / TestDaF

Yes

(24)University of Stuttgart:

Air Quality Control, Solid Waste and Waste Water Process Engineering (WASTE)

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=777&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science

Course Language(s)

Language of instruction and examinations: English

Classes are taught in English. However, students who are proficient in German may choose additional electives taught in German. Although the programme is taught in English, part of the programme is German language classes. Knowledge of the German language will help the students during daily life and offers an additional useful skill for their future.

Beginning of Programme

Winter semester

Programme Duration

CURRICULUM

The curriculum of the WASTE programme covers four semesters with 120 credits.

Prior to the first two semesters, a six-week intensive German language pre-course of 180 lesson hours is available.

The first two semesters are accompanied by German language classes.

Application Deadline

Application deadline is 15 February for the winter semester starting on 1 September (without sufficient German language knowledge - minimum level A2) / starting approx. 15 October (with sufficient German language knowledge - minimum level A2) of the same year
During the first semester, all students take five core modules, which include the fundamentals of Process and Environmental Engineering.

1. Thermo and Fluid Dynamics:(Thermodynamics of Fluid Mixtures, lecture
Flow with Heat Transfer, lecture
Computational Fluid Dynamics, lecture)
2. Pollutant Formation and Air Quality Control:(Chemistry and Physics of Combustion, lecture
Chemical Reaction Engineering, lecture+exercise
Basics of Air Quality Control, lecture)
3. Chemistry and Biology for Environmental Engineers:(Inorganic Chemistry, lecture
Organic Chemistry, lecture
Biology and Ecology of Water, Soil and Air Systems, lecture
Technical and Medical Microbiology for Engineers, lecture)
4. Sanitary Engineering:(Solid Waste Management, Waste Water Technology)
5. Technology Assessment:(Technology Assessment and Environmental Economics, lecture and exercises)
6. German as Foreign Language I

In the second semester two modules are mandatory:

1. Process Engineering:(Mechanical Process Engineering, lecture and Thermal Process

Engineering, lecture)

2. German as Foreign Language II

At the beginning of the second semester, students choose two of the three specialised areas. Each area consists of core modules in the second and third semesters:

1. Core Module of Air Quality Control Measurement of Air Pollutants:(Measurement of Air Pollutants Part I, lecture

Measurement of Air Pollutants Part II, lecture Practical work on Measurement of Air Pollutants, experiment Data Acquisition, lecture Planning of Measurements, seminar (introducing lecture + students presentations)

2. Core Modules of Solid Waste Mechanical and Biological Waste Treatment:(Solid Waste Treatment, lecture

Emissions from Waste Treatment Plants, lecture) Thermal Waste Treatment: (Thermal Waste Treatment, lecture

Thermal Waste Treatment Plant, excursion)

3. Core Module of Waste Water Urban Drainage and Design of Wastewater Treatment

Plants: (Design of Sewer System and Stormwater Treatment, lecture with exercise Design of Wastewater Treatment Plants, lecture with exercise Case Study, seminar) Additional elective

modules have to be chosen in second and third semesters. Students can decide about the distribution of the electives in second and third semesters. Elective Modules offered in the second semester:

Air Quality Management

Ambient Air Quality Basics of Membrane Technology

Industrial Waste and Contaminated Sites

Water Quality and Treatment

Emissions reduction at selected industrial processes

Independent Study

Core Module of not chosen area

In the third semester the two core modules of the two chosen specialist areas have to be taken:

1. Core Module of Air Quality Control Firing Systems and Flue Gas Cleaning: (Combustion and Firing Systems I, lecture

Combustion and Firing Systems I, exercise Flue Gas Cleaning at Combustion Plants, lecture Practical Work on easurements at Combustion and Firing Systems and Flue Gas Cleaning Excursion in Combustion and Firing Systems)

2. Core Module of Solid Waste Design of Solid Waste Treatment Plants: (Design of Biological Waste Treatment Plants, lecture Design of Biological Waste Treatment Plants, exercise Design of Thermal Waste Treatment Plants, lecture)

3. Core Module of Waste Water Industrial Waste Water: (Treatment of Industrial Waste Water, lecture Water Analysis and Analytical Quality Control, lecture)

Electives offered in the third semester:

Engine Combustion and Emissions

Biological Waste Air Purification and Adsorption

International Waste Management

Sanitary Engineering - Practical Class

Sustainable Production Processes

Independent Study

Core Module of not chosen area

Biogas

Forms of Assessment

Written or oral exams, participation in practical work, submission of studies, reports and design projects, Master's thesis

Each student gets 120 credits for the entire four semester programme:

33 credits for the mandatory Core Modules

24 credits for the Core Modules of the two chosen specialised areas

27 credits for Elective Modules

6 credits for German Language

30 credits for the Master's thesis

Costs, Fees and Funding (read more)

Tuition Fees

Since the summer semester of 2007, a tuition fee of 500 EUR per semester is charged.

Enrolment Fees

113 EUR per semester

Required Entry Qualification Profile (read more)

Language Requirements

A TOEFL (CB) score of 213 points or equivalent test results (e.g. TOEFL IBT 79 or TOEFL PB 550, IELTS Band 6.0) as proof of sufficient knowledge of English

International students without prior knowledge of the German language must attend the intensive German language course preceding the programme in September.

Required DSH / TestDaF

No

(25)FH Aachen - University of Applied Sciences: Automotive Vehicle Integration - Powertrain and Chassis Engineering

Attachment==15

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1363&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

uni: <http://www.fb6.fh-aachen.de/automobiltechnik/master-english/>

Degree

Master of Engineering in Automotive Powertrain and Chassis Integration

Course Language(s)

Courses are held in English. Some optional soft skill subjects are offered in German.

Beginning of Programme

Three-semester course in the summer semester (March)

four-semester course (with an integrated research semester) in the summer semester (March)

and in the winter semester (October)

Programme Duration

Three semesters or

four semesters (with integrated research semester)

Application Deadline

For the three and four semester course: 30 November for the following summer semester
For the four semester course: 31 May for the following winter semester

Description of Content

The three-semester course of study with the main field in Vehicle Integration imparts the methods and techniques of the Automotive Powertrain and Chassis Integration field of study.

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

Student activity fees of about 200 EUR per semester

No extra fees will be charged. By the time of enrolment, proof of payment of the tuition fees and student activity fees for the first semester is required.

Required Entry Qualification Profile (read more)

Language Requirements

Proof of English language ability such as TOEFL (550 paper-based test, 213 computer-based test, 79 internet-based test) or IELTS 6.0 overall band score.

Applicants who did not acquire their study qualification at a German-language university have to prove their proficiency in German before beginning their studies at the AcUAS with a Goethe-"Zertifikat Deutsch"-certificate.

Required DSH / TestDaF

Yes

(26) Hamburg University of Technology: Chemical and Bioprocess Engineering

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2557&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Uni:syllabus n all

<http://www.tu-harburg.de/alt/tuhh/education/degree-courses/international-study-programs/chemical-and-bioprocess-engineering/course-syllabus.html>

Degree

Master of Science

Course Language(s)

English, German language courses are offered before and during the programme.

Application Deadline

31 May

Description of Content

Biochemical and Chemical Engineering is a new multidisciplinary programme. It offers the opportunity to gain a broad knowledge in both biotechnological processes and classical chemical engineering. Close collaboration between these disciplines is a special feature of the engineering departments at TUHH in both education and research. Apart from basic knowledge in biological and biocatalytic processes, separation technologies, mechanical and reaction engineering, Master students will gain an insight into the most challenging problems on the boundaries between these disciplines and participate in the collaborative research of several departments.

The standard duration of the course is two years. In the first year, students take part in

lectures, exercises and laboratory work. A project and a subject-specific seminar or a process design course take place in the third semester. The course of study is completed with a six-month Master's thesis in the fourth semester.

The technological challenges of modern society and the requirements of the globalised labour market call for an excellent engineering education as well as for a sound additional qualification in the fields of business and management, soft skills and humanities. Therefore, the international Master's degree courses at TUHH include a number of non-technical compulsory elective courses.

(27) University of Erlangen-Nürnberg: Computational Engineering

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1029&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master's degree (MSc)

The Master's programme is complemented by a doctoral programme (PhD).

Course Language(s)

All compulsory courses are offered in English. Technical Application Fields Automatic Control and Computational Optics are taught in German. German language courses accompany the programme.

Beginning of Programme

Winter semester (September)

Programme Duration

Four semesters (three semesters for courses and laboratory work, one semester for the thesis)

Application Deadline

30 April

Description of Content

Computational Engineering is an innovative discipline fusing together the expertise of well-established engineering fields, computational sciences and applied mathematics. In addition to the traditional methodologies of theoretical modelling and experimental exploration, simulation has become an important tool in applications from fundamental research to product development. This innovation calls for experts who are able to model engineering problems in mathematical terms, and produce software to solve them. The programme extends beyond classical engineering education and applied mathematics to prepare students fully for these challenges.

Depending on their individual interests, students may select one of the following technical application fields:

- Automatic Control
- Computational Mechatronics
- Computational Optics
- Information Technology
- Mechanics and Dynamics
- Thermo and Fluid Dynamics

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR (currently)

Enrolment Fees
42 EUR (currently) plus contribution to Student Services
Required Entry Qualification Profile (read more)
Language Requirements
Proficiency in English (TOEFL score of at least 560, or equivalent)
Required DSH / TestDaF
No

**(28) University of Stuttgart:
Computational Mechanics of Materials and Structures (COMMAS)**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1237&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science in COMMAS

Course Language(s)

Language of instruction and examinations: English

Classes are taught in English. However, students who are proficient in the German language may choose additional electives taught in German in the second and third semesters.

Although the programme is taught in English, part of the programme is German language classes. Knowledge of the German language will help the students during daily life and offers an additional useful skill for their future.

Beginning of Programme

Beginning of September (German Language Course)

Middle of October (Lectures)

Programme Duration

The entire Master's programme takes two years (four semesters with 120 ECTS-credits) including a one-semester thesis. COMMAS was designed to be a very compact graduate programme.

Prior to the first semester, a six-week intensive German language pre-session course of 180 hours takes place.

The first two semesters are accompanied by German language classes.

Application Deadline

15 February for the following winter semester

Educational Organisation

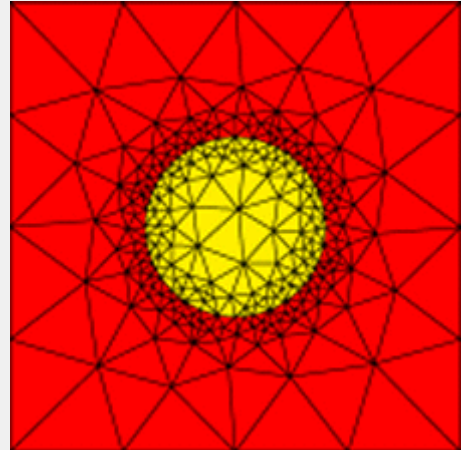
The Master of Science programme is four semesters long. During the first semester, all students take the same modules and courses and concentrate on the basics of mechanics, statics and dynamics, numerical methods, discretisation methods and software engineering. All courses not only provide an extensive introduction but also a deep knowledge of the most important areas in the field of Computational Mechanics of Materials and Structures. During the second and third semesters, subjects can be chosen from a large variety of courses. In order to establish and promote international interaction, further advanced subjects are delivered in summer school by internationally recognised experts.

The fourth semester is dedicated to the thesis. It is embedded into the current scientific activities of the participating research groups.

On successful completion of the programme (120 ECTS credits), students are awarded a Master of Science and will be entitled to continue to study for a doctoral degree without having to meet additional academic requirements. Special PhD programmes in this field are offered at the University of Stuttgart.

NEW Curriculum of COMMAS

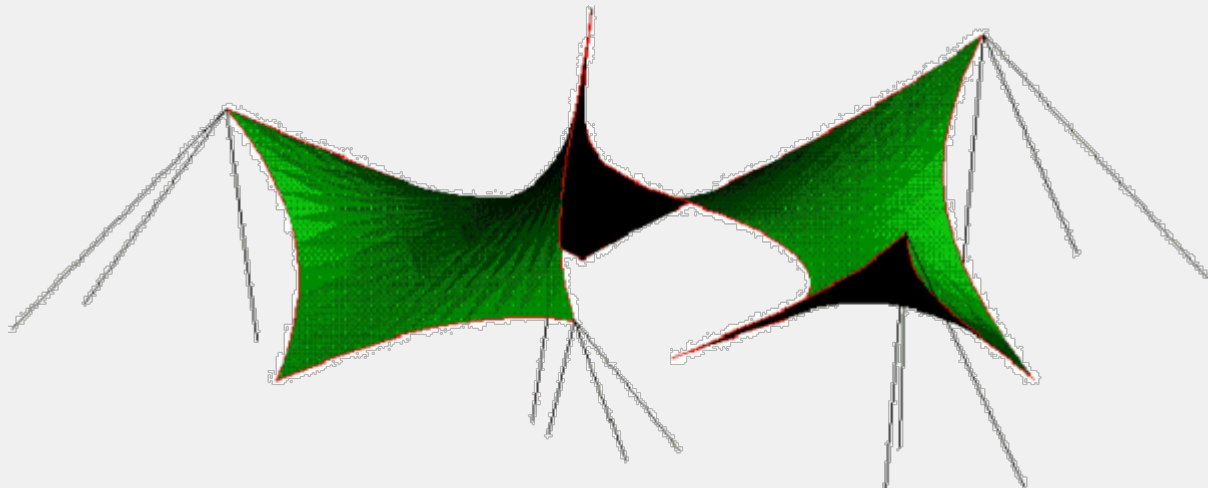
The Master of Science Programme, starting from the winter semester 2008/2009, has a duration of four semesters. During the first semester, all students take the same modules and courses and concentrate on the basics of mechanics, statics and dynamics, numerical methods, discretization methods and software engineering.



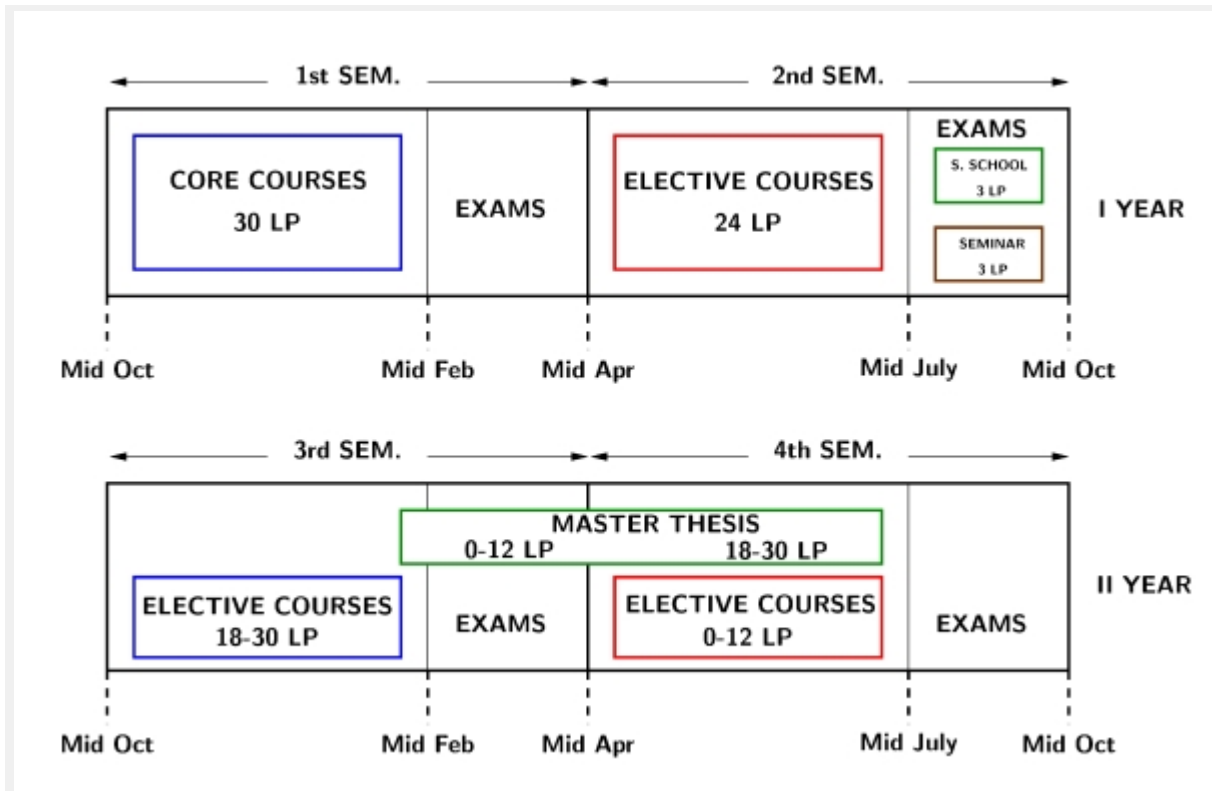
All courses not only provide an extensive introduction but also a deep knowledge of the most important areas in the field of Computational Mechanics of Materials and Structures.

During the second and third semesters, topics can be chosen from a large variety of courses. In order to establish an international interaction further advanced topics are given in the summer school by internationally recognized experts.

The fourth semester is dedicated to the thesis. It is embedded into current scientific activities of the participating research groups.



After successful completion of the programme (120 ECTS credits), students are awarded a Master of Science and will be entitled to continue to study towards a doctoral degree without having to meet additional academic requirements. Special Ph.D. programmes in this field are offered at the Universität Stuttgart. In the picture below the new structure is schematically represented. In this picture LP is the German abbreviation for ECTS credits.



Core Modules, 1st Semester (Winter Term)

Seven modules - 30 credits.

- Continuum Mechanics
- Computational Mechanics of Materials
- Computational Mechanics of Structures
- Discretization Methods
- Introduction to Scientific Programming
- Structural Dynamics and Optimization
- Engineering Materials I

Elective Modules, 2nd Semester (Summer Term) and 3rd Semester (Winter Term)

Free choice of modules - 54 credits

- Foundations of Single- and Multiphase Materials
- Micromechanics of Materials and Homogenization Methods
- Advanced Computational Mechanics of Structures
- Boundary Elements in Statics and Dynamics
- Applied Scientific Programming
- Engineering Materials II-Metals
- Numerical Modelling of Concrete Structures
- Engineering Materials II-Soils
- Advanced Materials and Smart Structures
- Optimal Control
- Implementation and Algorithm for Finite Elements
- Introduction to the Continuum Mechanics of Multi-Phase Materials

- Smart Systems and Control
- Modeling of Hydrosystems
- Parameter Identification Methods and Experimental Mechanics
- Selected Topics in the Theory of Plasticity and Viscoelasticity
- Theoretical and Computer-Oriented Material Theory
- Numerical Methods for Differential Equations
- Dynamics of Nonlinear Systems
- Introduction to Scientific High-Performance Computing
- Computational Methods for Shell Analysis
- Fahrzeugdynamik (only in german)
- Modellierung in der Biomechanik (only in german)
- Elements of Nonlinear Continuum Thermodynamics
- Continuum Biomechanics
- Erdbebenbeanspruchung von Bauwerken (only in german)
- Visualization in Science and Engineering
- Structure Borne Sound
- Fuzzy Methoden (only in german)
- Environmental Fluid Mechanics I
- Environmental Fluid Mechanics II
- Multiphase Modeling in Porous Media
- Adaptive Systems
- Micromechanics of Smart and Multifunctional Materials
- Dynamics of Mechanical Systems
- Geometrical Methods for Nonlinear Continuum Mechanics and Continuum Thermodynamics
- Advanced Numerical Modeling for Conservation Laws in Fluid Mechanics
- Computational Material Science
- Mathematical Aspects of Continuum Mechanics
- Simulation Methods in Physics I
- Simulation Methods in Physics II
- Iterative Solvers and Adaptive Algorithms

4th Semester (Summer Term)

Master Thesis - 30 credits.

The Master's Thesis should demonstrate the student's ability to work independently and within a given time-limit on a problem in his field of study according to scientific principles. The candidate must be given the opportunity to suggest a topic. He is advised during the preparation of his Master's Thesis by a professor and/or a researcher of one of the institutes. The time-limit for completion of the Master's Thesis is six months.

Summer School

With 3 credits.

[Click here for past and current summer schools.](#)

Advanced Topics on

- Continuum Mechanics
- Numerical Methods

- Engineering Materials
- Fluid Mechanics

Seminar Lecture

With 3 credits.

In connection to one of the modules chosen in the second semester, the students give a seminar lecture on a topic related to that module chosen in agreement with the module coordinator. The students present these lecture in front of a public audience, coinciding mostly with the students attending the same module.

Costs, Fees and Funding (read more)

Tuition Fees

Since the summer semester of 2007, a tuition fee of 500 EUR per semester is charged.

Enrolment Fees

113 EUR per semester

equired Entry Qualification Profile (read more)

Language Requirements

A TOEFL (CB) score of 213 points or equivalent test results (e.g. TOEFL IBT 80 or TOEFL PB 550, IELTS Band 6.0) as proof of sufficient knowledge of English

International students without prior knowledge of the German language have to attend the German intensive language course preceding the programme in September.

Required DSH / TestDaF

No

(29) Albstadt-Sigmaringen University - University of Engineering and Economics: Double Degree Programmes at the Department of Engineering (MSc + MSc [UK] or MEng + MSc [UK])

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2349&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Course Language(s)

Courses at Albstadt-Sigmaringen University are held mainly in German, courses at the University of Glamorgan are held in English.

The Master's thesis must also be written in English.

Required DSH / TestDaF

Yes

(30) RWTH Aachen University:
Graduate School Aachen Institute for Advanced Study in Computational Engineering Science

Attachement==29

Uni :go to <http://www.aices.rwth-aachen.de/academics> and thn go to last 4 masters options
Degree

Master of Science / doctoral degree in Engineering or Natural Sciences

Course Language(s)

English; students may choose to take part in courses held in German

Beginning of Programme

Winter semester - October

Programme Duration

Master's degree: three to four semesters

Doctoral degree: six semesters

Application Deadline

Bachelor's degree holders applying for the course-based first year of the programme should file their application by 31 December for admission in the summer semester, by 30 April for admission in the winter semester

Educational Organisation

Depending on the Bachelor's degree:

Master in Computational Engineering Science (requires Bachelor in Computational Engineering Science) with mandatory courses e.g. in Computer Science, Mathematics, Process Systems Engineering, Material Science

Master of Simulation Sciences (non-consecutive) with mandatory courses e.g. in Physics, Computer Science, Numerical Methods

Master in Computer Science with mandatory courses e.g. in Theoretical Computer Science, Applied Computer Science, Software and Communication

Master in Mathematics with mandatory courses e.g. in Numerical Analysis, Optimisation

Costs, Fees and Funding (read more)

Tuition Fees

None

Enrolment Fees

None

Required English Language Test

Yes

Academic requirements

- A recent Bachelor's degree in Engineering including Computational Engineering, Geoscience, Mathematics or Computer Science

- Evidence of English language skills

- Outstanding academic achievement evident from transcripts and other application materials

**(31) University of Siegen:
International Graduate Studies in Mechatronics**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1219&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

uni : <http://www2.uni-siegen.de/mechatronics/index.php?page=main.php&highlight=home>

Attachment===30 (time table)

Please note:

- Concerning Indian applicants: All marks sheets and degree certificates (transcripts) must be sent through proper channel (original college).

Degree

Master of Science

Course Language(s)

English

Beginning of Programme

Middle of October each year

Programme Duration

Two years/four semesters

Application Deadline

As published on the internet homepage, usually 30 April each year

Description of Content

The International Postgraduate Studies in Mechatronics are offered as interdisciplinary courses by the Department of Electrical Engineering and Computer Science in cooperation with the Department of Mechanical Engineering. The synergy between these disciplines imparts the scientific basics and methods for the specific demands required for the development of integrated technical systems. Continuation of studies in a doctoral programme leading to the degree "Dr-Ing" is also possible.

1st and 2nd Semester: Study Requirements

Subject	MB		ET		Module	Type of examination
	SWS	CP	SWS	CP		
1st semester (winter semester)						
Embedded Control	4	5			AnpM	K2
Electrical and Electronic Engineering I	4	5			AnpM	K2
Materials Science			4	5	AnpM	K2
Machine Elements			4	5	AnpM	K2
Automation & Industrial Communication	4	5	4	5	IM	K2

Fluid Power	4	5	4	5	IM	K2
Basic Control	2	2,5	2	2,5	IM	K1
Advanced Control I	2	2,5	2	2,5	VM	K1
Project Management I	2	2,5	2	2,5	IM	K1
Subject block "languages"	2	2,5	2	2,5	AnwM	*)
	24	30	24	30		
2nd semester (summer semester)						
Electrical Machines and Power Electronics	4	5			AnpM	K2
Electrical and Electronic Engineering II	2	2,5	2	2,5	IM	K1
Engineering Design I + II			4	5	AnpM	K2
Introduction to Programming	4	5	4	5	IM	P
Advanced Control II	2	2,5	2	2,5	VM	K1
Control Laboratory	2	2,5	2	2,5	VM	P
Machine Dynamics & Systems Dynamics	4	5	4	5	VM	K2
Sensorics	4	5	4	5	IM	K2
Mechatronic Design in Production Machines	2	2,5	2	2,5	VM	P
Project Management II	2	2,5	2	2,5	VM	K1
	26	32,5	26	32,5		

3rd and 4th Semester: Study Requirements

Subject	MB SWS CP		ET SWS CP		Module	Type of examination
3rd semester (winter semester)						
Actorics	4	5	4	5	IM	M

Modeling and Simulation	4	5	4	5	IM	K2
S/W Engineering	4	5	4	5	VM	P
Mechatronic Systems	6	7,5	6	7,5	VM	K3
Studienarbeit (project work)		7,5		7,5		Studienarbeit
	18	30	18	30		
4th semester (summer semester)						
Subject block "non-technical and technical courses"	6	7,5	6	7,5	AnwM	*, **)
Master Thesis		20		20		Master Thesis
	6	27,5	6	27,5		

Key:

*) The subject blocks "Languages" and "Non-technical and technical courses" will be announced by the Examination Committee at the beginning of the semester, in addition to the required type of examination according to § 16 of the Standard Examination Regulations.

**) Non-technical courses equivalent to 2.5 CP can be chosen.

AnpM: adaptation module; **IM**: integration module; **VF**: intensification module

AnwM: application module

Kx: written examination (x = duration of examination in hours); **M**: oral examination

P: practical training with grade according to § 27 of the Standard Regulations

MB,ET: Students are classified as mechanical engineers (MB) or electrical engineers (ET) according to their first degree qualifying for a profession. The subjects listed in the adaptation module are adapted to the different basic knowledge of the students at the time of admission. The MB/ET students must study the respective MB or ET subjects in the adaptation module.

SWS: hours per week of a semester (Semesterwochenstunden)

CP: Credit Point according to ECTS (European Credit Transfer System)

Course Objectives

Mechatronics is a multi-disciplinary area in Engineering focusing on solving problems which occur at the interface of classic areas of Mechanical and Electrical Engineering and Computer Science. Students acquire the necessary skills and methods in Mechatronics as a new field which qualifies them for interdisciplinary scientific work, critical assessment of scientific findings and responsible behaviour.

Costs, Fees and Funding (read more)

Tuition Fees

Tuition fees are defined individually by the individual international courses.
500 EUR for International Graduate Studies in Mechatronics

Enrolment Fees

210 EUR per semester

Fee includes a semester ticket covering public transport in the city of Siegen and North Rhine-Westphalia

Required Entry Qualification Profile (read more)

Language Requirements

Very good proficiency in English

TOEFL or IELTS tests are not a condition, but strongly recommended, and increase the chances of acceptance.

Required DSH / TestDaF

No

Required English Language Test (but in website they are asking for English test so give it)

No

Academic requirements

Bachelor of Science in an engineering discipline or equivalent (to be decided in each case), issued by a renowned university

Applicants must have above-average scores in the degree obtained.

(32) Hamburg University of Technology: International Production Management

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1097&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

uni: <http://www.tu-harburg.de/alt/tuhh/education/degree-courses/international-study-programs/international-production-management.html>

Good Coursecovers product,process,business,marketbut some lectures r in German

Checkout this link by clicking each subject....either in eng or in German

<http://www.tu-harburg.de/alt/tuhh/education/degree-courses/international-study-programs/international-production-management/course-syllabus.html>

Degree

Master of Science

Course Language(s)

English and German

German language courses are offered before and during the programme.

Beginning of Programme

October

Programme Duration

Four semesters (two years)

Application Deadline

31 May

Description of Content

Today it is not adequate for executives in industry to have a competent knowledge of e.g. mechanical engineering only; a broad sphere of competence is also required. Therefore, this interdisciplinary degree course was created, combining manufacturing technology and mechanical design with computer engineering and management science.

The standard duration of the course is two years. In the first year, students take part in lectures, exercises and laboratory work. A project and a subject-specific seminar or a process design course take place in the third semester. The course is completed with a six-month Master's thesis in the fourth semester.

The technological challenges of modern society and the requirements of the globalised labour market call for an excellent engineering education as well as for a sound additional qualification in the fields of business and management, soft skills and humanities. Therefore, the international Master's degree courses at Hamburg University of Technology (TUHH) include a minimum number of non-technical compulsory elective courses.

Costs, Fees and Funding (read more)

Tuition Fees

375 EUR per semester

Enrolment Fees

The enrolment fee of approx. 250 EUR per semester includes an administrative fee as well as a contribution to the Students' Union, the student service organisation and the student ticket for public transport in Hamburg.

Required Entry Qualification Profile (read more)

Language Requirements

Proficiency in English (TOEFL with a minimum score of 550/213/79 or IELTS with a minimum score of 6.5)

Required DSH / TestDaF

No

Required English Language Test

Yes

Academic requirements

- Bachelor of Science or equivalent in a relevant subject
- TOEFL score of at least 550/213/79 or equivalent
- Very good previous academic performance
- GRE General Test

(33) Munich University of Applied Sciences: Master of Engineering in Paper Technology

Degree

Master of Engineering in Paper Technology

Course Language(s)

English

Beginning of Programme

15 March and 1 October each year

Programme Duration

Two semesters for students with a first degree in a paper technology related field (consecutive)

Four semesters for students with a first degree in a non-paper technology related field (further education)

Sixteen weeks each semester

Application Deadline

Application period:

2 May to 15 August for the following winter semester (begins 1 October)

15 November to 1 February for the following summer semester (begins 15 March)

Later applications must be sent directly to the Head of the Master's programme Prof Dr Kleemann (kleemann@hm.edu).

Description of Content

Total duration of study is either two semesters (consecutive) or four semesters (further education).

All lectures are either related to areas of paper technology/chemistry or specific knowledge necessary for a career in the board and paper industry. Specific information may be found on the internet (www.hm.edu/papertec) or by email (kleemann@hm.edu).

First semester:

Introduction to Paper Technology, Pulp Technology, Stock Preparation, Paper Testing, Thermodynamics, Electives

Second semester:

Board and Paper Technology, Electromechanical Engineering, Paper Chemistry and Minerals, General Management, Project, Electives

Third semester:

Automation in Paper Technology, Coating, Printing Technology, Elective Intensive, Electives, Design of Experiments (DOE), Specialty Papers, Clothing, International Project Management, Patent Law and Intellectual Property

Fourth semester:

Master's thesis

(34) University of Applied Sciences Emden/Leer: Master of Science in Environmental Technology and Management

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1291&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science in Environmental Technology and Management

Opportunity for PhD studies

In Cooperation with

De Montfort University, Leicester, UK and Aalborg Universitet, Esbjerg, Denmark

Course Language(s)

English

Beginning of Programme

1 September/1 January

Programme Duration

One year in three sections at three different locations in Europe

Application Deadline

EU applicants: 1 May/1 July

Non-EU applicants: usually 15 March (due to the time needed to obtain visas)

Description of Content

The content of the Master's course of study is delivered in ten modules and one final thesis. The modules are: Environmental Field Water; Toxicology; Environmental Field Soil; Raw Material and Waste; Energy; Environmental Field Air; Technology, Economy, Environment & Man; Economy, Process Control and Management in Industry; Environmental Protection and Laws in Europe; and Research Methods, Culture and Language. The final thesis is written at one of the partner institutions or in industry.

**(35) University of Freiburg:
Master of Science in Microsystems Engineering**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1748&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science (MSc)

Course Language(s)

The programme is taught in English. Elective courses may be chosen in English or German.

Beginning of Programme

Winter semester - October

Programme Duration

Four semesters (two years)

Application Deadline

1 May

Description of Content

The Master of Science programme in Microsystems Engineering is offered by the Department of Microsystems Engineering (IMTEK) at the University of Freiburg. This two-year, English-language programme is designed for highly qualified graduate students who have a Bachelor's degree in Engineering or Science and are looking for advanced training in one of the most dynamic and interdisciplinary fields of engineering.

Microsystems, MEMS, or micromachines - there are many names for an exciting discipline of engineering which combines expertise from areas as diverse as electrical engineering, biology, manufacturing technology and chemistry and thus allows engineers to conceive highly miniaturised, multi-functional systems with capabilities limited only by their imagination. Retinal implants to help the blind to see; a clinical blood analysis laboratory on a micro-chip; autonomous optical systems for imaging inside the body - these are just a few examples of the roles microsystems will play in all of our lives.

The four semester programme, taught at one of the world's top academic microsystems research departments, combines extensive course work in advanced Microsystems Engineering with a concentration in two of seven sub-disciplines, ranging from Materials to the Life Sciences. The required one year Master's thesis will be based on project work performed directly in a professor's research group, giving the graduate extensive, hands-on experience using the state-of-the-art microsystems infrastructure at IMTEK. The educational and social environment assures success: the University of Freiburg is one of Germany's leading research universities, with top-ranked departments in the Sciences and Humanities.

The Master of Science programme in Microsystems Engineering consists of three educational components.

1) Advanced microsystems engineering/compulsory courses:

- Microelectronics
- Micro-mechanics
- Optical microsystems
- Biomedical microsystems
- Micro-actuators
- Micro-fluidics

As part of the requirements, the MST design laboratory is a two-semester module in which small teams of students undertake a comprehensive, hands-on design project in microsystems engineering. Requiring students to address all aspects of the generation of a microsystem, from conceptualisation through project planning to fabrication and testing, this module provides an essential glimpse into the workings of engineering projects.

2) Microsystem concentrations/elective courses:

- Circuits and systems
- Design and simulation
- Life sciences: Biomedical engineering
- Life sciences: Lab-on-a-chip
- Materials
- MEMS processing
- Sensors and actuators

3) Master's thesis

Each student works as a member of one of the 18 research groups of the IMTEK, with full access to laboratory and cleanroom infrastructure. The one year Master's thesis requires project planning, experimental work, theoretical analysis and presentation of the results.

Module formats are: lectures, discussion sections, laboratory courses, thesis project.

**(36) Ruhr University Bochum:
Master of Science Programme: Computational Engineering (CompEng)**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1426&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

uni : for detail of each subject , who take the lect n all details or direct klik on the syllabus given bellow

http://compeng.rub.de/index.php?option=com_content&view=article&id=41&Itemid=35

Degree

Master of Science in Computational Engineering

Course Language(s)

The compulsory courses are held in English.

The optional courses are held in English.

The Master's thesis must be written in English.

Beginning of Programme

Winter semester (October)

Programme Duration

Four semesters (two years)

Application Deadline

Non-EU applicants: 1 May for the following winter semester; EU- and national applicants: 15

July for the following winter semester

Description of Content

Numerical simulations based on realistic computational models along with experimental verification methods have become indispensable tools for advanced computer-oriented engineering. The Master's course provides the key qualifications in engineering mechanics, mathematics and computer science required for innovatively designing and analysing high-tech engineering systems and materials.

1st semester	CP	lecture+exercise (per week)
Compulsory courses		
Mathematical Aspects of Differential Equations and Numerical Mathematics	6	2+2
Mechanical Modelling of Materials	6	2+2
Computer-Oriented Design of Steel Structures	6	2+2
Modern Programming Concepts in Engineering	6	2+2
Finite Element Methods in Linear Structural Mechanics	6	2+2
Compulsory optional subjects		
Tensor Theory in Mechanics and Engineering	4	2+2
Optional subjects		

<u>Training of Competences (part 1)</u>	4	2+2
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2nd semester	CP	lecture+exercise (per week)
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Compulsory courses

<u>Fluid Dynamics</u>	3	1+1
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<u>Continuum Mechanics</u>	6	2+2
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Compulsory optional subjects

<u>Concrete Engineering and Design</u>	6	2+2
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<u>Dynamics and Adaptronics</u>	6	2+2
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<u>Computational Modelling of Mixtures</u>	4	2+1
--	---	-----

<u>Advanced Finite Element Methods</u>	6	2+2
--	---	-----

<u>Finite Element Method for Nonlinear Analyses of Inelastic Materials and Structures</u>	3	2+0
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<u>Finite Element Technology</u>	3	1+1
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<u>Computational Fluid Dynamics</u>	6	2+2
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<u>Numerical Methods and Stochastics</u>	6	2+2
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<u>Case Study A</u>		
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Optional subjects

<u>Environmental Modelling</u>	4	2+1
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<u>Fracture and Damage Mechanics</u>	4	2+1
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<u>Computational Modelling of Subsurface Transport Processes</u>	5	2+1
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<u>Numerical Simulation in Tunnelling</u>	2	1+0
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<u>Training of Competences (part 2)</u>	4	2+2
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3rd semester	CP	lecture+exercise (per week)
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Compulsory optional subjects

<u>Dynamics of Structures</u>	6	2+2
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<u>Design Optimization</u>	6	2+2
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<u>Advanced Control Methods for Adaptive Mechanical Systems</u>	6	2+2
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Computational Wind Engineering	3	1+1
Computational Plasticity	4	2+1
Optional subjects		
Parallel Computing	4	2+1
Adaptive Finite Element Methods	6	2+2
Computational Fracture Mechanics	6	2+2
Energy Methods in Material Modeling	4	3+0
Safety and Reliability of Engineering Structures	6	2+2
Computational Combustion	5	2+1
Multiscale Modelling in Materials Science	6	2+2
Case Study B		

4th semester

CP

lecture+exercise
(per week)

[Master Thesis](#)

Costs, Fees and Funding (read more)

Tuition Fees

University tuition fee of EUR 480 per semester

Enrolment Fees

Social fee of approx. EUR 230 per semester, including a semester ticket which is valid for public transport within the state of North Rhine-Westphalia

Required Entry Qualification Profile (read more)

Language Requirements

Proof of English language skills: TOEFL (ppt: minimum score 550, cbt: minimum score 215, ibt: minimum score 79) or IELTS (minimum score 6.0)

Required DSH / TestDaF

No

Required English Language Test

Yes

**(37) Hamburg University of Technology:
Mechatronics**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1099&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Some of the subjects are in German so must check out each subject by clicking it...to the below link

Uni : <http://www.tu-harburg.de/alt/tuhh/education/degree-courses/international-study-programs/mechatronics.html>

Degree

Master of Science

Course Language(s)

English and German

German language courses on offer before and during the programme

Beginning of Programme

October

Programme Duration

Four semesters (two years)

Application Deadline

31 May

Description of Content

Innovations in electronics have driven many technological advances in the past and will increasingly do so at an even faster rate in the foreseeable future. These innovations, on the one hand, open opportunities in almost every conceivable endeavour of society to improve the quality of life. On the other hand, they present significant operational and managerial challenges. Industries worldwide are shifting into gear in production technologies, both hardware and software, due to technological advances. The development of these new high technologies has given birth to the new academic interdisciplinary field of Mechatronics. The standard duration of the course is two years. In the first year, students take part in lectures, exercises and laboratory work. A project and a subject-specific seminar or a process design course take place in the third semester. The course is completed with a six-month Master's thesis in the fourth semester.

The technological challenges of modern society and the requirements of the globalised labour market call for an excellent engineering education as well as for a sound additional qualification in the fields of business and management, soft skills and humanities. Therefore, the international Master's degree courses at Hamburg University of Technology (TUHH) include a minimum number of non-technical compulsory elective courses

Course Syllabus



The programme is designed to include a set of core courses aimed at developing core competence, while a set of compulsory elective courses represents current technological advance and a set of general courses to provide a broad vision.

Module	Semester	ECTS
Compulsory Technical Courses		
Control Systems Theory and Design	1	5
Design and Implementation of Software Systems	1	4
Robotics	1	4
Microsystem Technologies	1	4
Industrial Process Automation	1	5
Finite Elements Methods	1	5
Nonlinear Dynamics	2	5
Process Measurement Engineering for international Master Programs	2	4
Electromechanics and Contromechanics	2	4
Mechatronics Lab	2	3
Seminar Mechatronics: One of the seminars must be attended.		
Seminar Mechanics	3	3
Seminar Engineering Design, Materials, Manufacturing	3	3
Seminar Biomedical Engineering	3	3
Elective Technical Courses: Modules for 17 ECTS in total from 2 fields, minimum 7 ECTS per field		

Elective Field Electronics		
Metrology and Sensors for international Master Programs**	1	3
Communication Networks I: Principles	1-3	4
Circuit Design	1-3	4
Environmental Measurement Technology	1-3	4
Theory and Practice of Instrumentation	2	6
Fibre and Integrated Optics	2	4
Power Electronics	2	3
Automation and Process Control Systems	2	3
** It is strongly recommended for students from abroad to elect this course.		
Elective Field Mechanics		
Fundamentals of Fracture Mechanics	1-3	4
Fatigue and Damage Tolerance	1-3	3
Aerodynamics and Flight Mechanics I	1-3	4
Reliability in Engineering Dynamics	2	4
Mechanical Design Methodology	2	4
Robotics II	2	4
Boundary Element Methods	2	5
Integrated Product Development incl. CAD practical training	2	4
Development Management for Mechatronics	2	3
High Order FEM	2	4
Technical Acoustics I: Acoustic Waves, Noise Protection, Psycho Acoustics	2	5
Technical Acoustics II: Room Acoustics, Computational Methods	3	5
Elective Field Computer Science		
Adaptive Compute Systems	1-3	3

Digital Image Processing	1-3	4
Computer Networks	1-3	4
Man-Machine-Interfaces	1-3	4
Digital Video Signal Coding	1-3	3
Embedded Processor Networks	1-3	3
Numerical Methods for International Master Programs	1-3	4
Nonlinear Optimization	2	4
Microprocessor Systems	2	4
Digital Signal Processors	2	3
Information and Coding Theories	2	4
Object-Oriented System Development in Process Automation	2	5
Application Security	2	4
Software for Embedded Systems	2	5
Elective Field Control Systems		
System Modelling and Process Dynamics Identification	1-3	3
Parameter Identification and Adaptive Control	1-3	3
Nonlinear Control	1-3	3
Optimal and Robust Control	2	4
Simulation of Dynamic Systems	2	3
Neural and Genetic Computing for Control of Dynamic Systems	2	3
Compulsory Complementary Courses (for non German native speakers only)		
German as Foreign Language	1	4
Elective Complementary Courses		
Block I: Business and Management		
Module from separate Catalogue	1-3	2
Module from separate Catalogue	1-3	2

Module from separate Catalogue	1-3	2
Block II: Complementary Courses		
Module from separate Catalogue	1-3	2
Module from separate Catalogue*	1-3	2
Module from separate Catalogue*	1-3	2
* non German native speakers must do the language course instead.		
Assignments		
Research Project	3	15
Master Thesis		
Master Thesis	4	30

More detailed information on the individual courses can be obtained by clicking at them in the list given above.

As a prospective applicant you should carefully check whether or not you meet the requirements requested; if not, an application is not recommended.

Social skills

Special emphasis is given to preparing young engineers to work in teams and in an international environment.

Project Work

Project work with lectures is a two- to three-month full-time activity. Under the supervision of a university lecturer the student will be introduced to practical problems and scientific processing methods. The project work can be performed at the TUHH, at an external institution which is not part of the university or abroad.

Master's Thesis

The course of study is concluded with the master's thesis. Here students are expected to show that they are able to deal with a problem of their specialist subject independently according to scientific methods within a maximum period of six months. Students have to do research on their own and gain experience in scientific work. The master's thesis can be performed at the TUHH or at an institution which is not part of the university. It is supervised by a university lecturer of the TUHH.

Educational Methods

Lectures on the fundamental principles of each subject are given by professors. Tutorials concentrating on solving basic and applied problems as well as laboratory work in smaller groups are given by teaching and research assistants. Further support is provided by student's tutorials. Some 20 to 25 hours a week are scheduled as supervised instruction, and a similar additional amount of time is estimated to be needed for individual study.

Educational Organisation

Teaching the methodology and logic of engineering - "learning to think" - is a key aspect of the TUHH studies. Only in this way can one acquire the knowledge to keep pace with rapid technological change. This sound theoretical foundation is rounded off by a well-balanced mixture of practical application in internships, projects and thesis work. It should be noted

that students at TUHH are trained to think and decide for themselves, to learn and work independently as well as in international teams representing many different academic, national and cultural backgrounds. TUHH promotes interdisciplinary research, teaching and learning. Students will be integrated into research and development projects at an early stage; this facilitates a smooth transition to working life.

Costs, Fees and Funding (read more)

Tuition Fees

375 EUR per semester

Enrolment Fees

The enrolment fee of approx. 250 EUR per semester includes an administrative fee as well as a contribution to the Students' Union, the student service organisation and the student ticket for public transport in Hamburg.

Costs of Living

Required Entry Qualification Profile (read more)

Language Requirements

Proficiency in English (TOEFL with a minimum score of 550/213/79 or IELTS with a minimum score of 6.5)

Required DSH / TestDaF

No

Required English Language Test

Yes

Academic requirements

- Bachelor of Science or equivalent in a relevant subject
- TOEFL score of at least 550/213/79 or equivalent
- Very good previous academic performance
- GRE General Test

(38) Karlsruhe Institute of Technology: MSc in Optics & Photonics

Degree

MSc in Optics & Photonics

In Cooperation with

Research Center for Information Technology (FZI)

Center for Solar and Hydrogen Research (ZSW) in Stuttgart

International Department GmbH

Course Language(s)

English

Beginning of Programme

Winter semester each year (October)

Programme Duration

Four semesters (two years)

Application Deadline

15 July each year

Accademic

Stage I (Introduction):

This phase comprises adjustment courses which will help to bring the inhomogeneous backgrounds of the students to a common standard. The assignment of adjustment courses will be individually determined for each student. Together with compulsory courses on fundamental topics and first practical training sessions in a lab course, this will lay the foundations for the courses on core subjects (Stage II) and specialisation courses (Stage III).

Compulsory Courses:

- Optical Engineering
- Fundamentals of Optics and Photonics
- Electromagnetics and Numerical Calculation of Fields

Optics and Photonics Lab I

Adjustment courses:

- Selected Topics in Experimental Physics
- Measurement and Control Systems
- Chemistry

Stage II (Core Subjects):

The goal of this phase is to provide a comprehensive education in advanced optics and photonics, and, simultaneously, to review this wide and diverse field. The central part of this phase is a block of compulsory lectures which span the whole range from basic science to engineering. These lectures are complemented by a laboratory course and an industrial internship, for which the connection to corresponding industry partners will be made by the Karlsruhe School of Optics & Photonics.

Compulsory Courses:

- Spectroscopic Methods
- Theoretical Optics
- Optoelectronic Components
- Nonlinear Optics
- Microoptics and Lithography

Optics and Photonics Lab II

Industry Internship: Introduction

Stage III (Specialisation):

Based on the knowledge developed in Stages I & II, this phase features elective courses from the main research areas of the Karlsruhe School of Optics & Photonics. Together with a seminar course and a project course, this will serve as an introduction to independent scientific work and, therefore, provide the student with the knowledge and skills required to carry out research successfully within a Master's thesis.

Elective Course Photonic Materials and Devices:

- Solid-State Optics
- Field propagation and coherence
- Advanced Optical Materials
- Numerical Methods in Photonics
- Advanced Inorganic Materials
- Plastic Electronics
- Photovoltaics

Elective Course Advanced Spectroscopy:

- Molecular Spectroscopy
- Quantum Functional Devices and Semiconductor Technology
- Combustion Diagnostics
- Nanooptics
- Laser Metrology

Elective Course Biomedical Photonics:

- Imaging Techniques in Light Microscopy
- Optics and Vision in Biology
- Nanooptics

- Molecular Cell Biology
 - Laser and Optics in Biomedical Engineering
 - Photochemistry
- Elective Course Optical Systems:
- Systems and Software Engineering
 - Machine Vision
 - Optical Communication Systems
 - Light and Display Engineering
- Seminar Course (Research Topics in Optic and Photonics)
- Industry Internship: Specialisation and Report
- Additive key competences
- Project Courses (Research Lab) to Elective Courses

Stage IV (Master's thesis):

Within this phase, the student will join one of the KSOP research groups and utilise the knowledge and skills acquired in Stages I - III to work on an advanced research project.

(39) Chemnitz University of Technology:
Print and Media Technology

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2462&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science in Print and Media Technology

Alternative double degree programme: two Master's degrees (MSc)

In Cooperation with

Manipal University, India

Course Language(s)

Courses are held in English. Participants write their Master's thesis in English.

Beginning of Programme

Winter semester - October

and summer semester - April

Programme Duration

Four semesters (two years)

Application Deadline

15 July for the following winter semester

15 January for the following summer semester

Educational Organisation

The two-year Master's programme Media Production is a full-time study programme that consists of lectures, exercises, practical courses and research project seminars. It is divided into four semesters.

During the first semester students take lectures in the fields of Media Physics and Electronic Media and participate in a challenging team-based research project seminar in which they work on a research-based or industry-based task.

In the second semester students acquire knowledge in Media Management and Entrepreneurship as well as in Print Production. In addition, they can elect courses in the interdisciplinary Applied Specialisation Module I. According to their choice in the subject areas Electronic Devices, Industrial Production and Management and Economics, students are able to establish an individual qualification profile.

The following semester is focused on extending the students' knowledge in Media Technology, Digital Fabrication and Printing Press Concepts. Again, a wide range of elective courses in the Applied Specialisation Module II supplements the subject-specific education. A further research project seminar places students in interdisciplinary teams working closely on a specific task with researchers in the department and in most cases also with industry professionals.

During the last semester, students work on their Master's thesis. Thesis work may be performed at the university, partner universities, associated members, industry or research institutions related to the course specialisation.

Costs, Fees and Funding (read more)

Tuition Fees

No tuition fees are charged at Chemnitz University of Technology (CUT).

(40) South Westphalia University of Applied Sciences: Systems Engineering & Engineering Management

Degree

Master of Science

In Cooperation with

University of Bolton

Course Language(s)

Courses are taught entirely in English.

Beginning of Programme

Winter semester - October

Summer semester - March

Programme Duration

Three semesters

Application Deadline

31 May for winter semester

30 November for summer semester

Description of Content

The central aims for the course "Systems Engineering and Engineering Management" arise out of the changed catalogue of requirements in the area of engineering. Changing working procedures and rationalised processes force engineers to be more and more involved with organisational duties. Key qualifications like team and group work, project organisation, communication and presentation thus become steadily more important as parallel skills and activities alongside the classical technical spectrum of requirements. These requirements can be conveyed by combining the fields of engineering, management, and economics.

The course offers three different pathways: Electronic, Mechanical and Mechatronic systems. Students taking the Electronics pathway will take two electronics modules. Likewise students taking the Mechanical pathway will take two mechanical modules. Students taking the

Mechatronics pathway will take one mechanical and one electronics module. The final project module will be related to the pathway subject. The course structure has four subject-based components. These are:

- Systems Engineering
- Management Systems
- An engineering subject discipline
- A project based on the pathway

Only the engineering subject discipline differentiates the taught elements of the course, the other components are common to all pathways. The engineering discipline bears the pathway name.

The programme structure reflects the common generic systems approach to engineering and management. The course treats the systems approach to engineering as generic; this is reflected in the two systems modules: Intelligent Systems and Advanced Control Technology. Engineering Management is addressed by four modules: Business in Engineering, Technical Publications and Presentations, Project Management and Integrated Management. Two engineering subject-specific modules define the pathway and focus on the application of the generic system engineering methods in specific application areas. The two electronics modules are Microprocessor based systems and Signal Processing. The two mechanical modules are Monitoring of Mechanical Systems and Advanced Production Engineering. A project module integrates the taught elements of the course. The project can be based on either the engineering pathway or engineering management.

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

Currently: 192.05 EUR per semester

(for social services fee, financial fee for student body organisations, ticket for public transport)

Required Entry Qualification Profile (read more)

Language Requirements

Applicants must provide proof of their English skills:

TOEFL 550 (paper-based), 213 (computer-based), 79 (internet-based)

IELTS 6

Required DSH / TestDaF

No

Required English Language Test

Yes

**(41) Dresden University of Technology:
Textile and Ready-Made Clothing Technology
German language so canceled**

(42) Technische Universität München (University):

Advanced Construction and Building Technology - Automation, Robotics, Services

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=3122&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&ip>

[tuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15](#)

Degree

Master of Science

In Cooperation with

International Association for Automation and Robotics in Construction (IAARC)

Course Language(s)

English

Beginning of Programme

October 2011

Programme Duration

Four semesters (two years)

Application Deadline

15 June for the following winter semester

Description of Content

Frontier engineering sciences increasingly breed innovations. These innovations are driven and amplified by globalisation, closed loop resource utilisation, transformation of technological potentials, environmental and demographic challenges. Therefore, the topics of this course aim at expanding professional core competence in construction while responding to changing technological, social and ecological circumstances:

1. New technologies, processes and strategies for designing and producing buildings:

Faster return on investment through implementation of rapid project delivery and zero defect construction via robot-oriented design and automated construction systems. Students who take the Master's Course in Advanced Construction and Building Technology acquire complementary knowledge in design, production, assembly, logistics, and management, with an emphasis on information, communication, automation, robotics, mechatronics, and service technologies.

2. Integration of intelligent systems in daily life and environments:

Microsystems and microelectronics increasingly form a part of our everyday life. Miniaturisation allows for incorporation of microelectronics into domestic systems and appliances. Simultaneously, we want to deal with a standardised and compatible network of synergetic subsystems rather than detached island solutions. On top of conventional construction planning, engineering, and management, these new technologies require an even more complex project management capacity for interfacing the various frontier science disciplines. In order to incorporate mechatronic technologies into intelligent living environments, students acquire basic knowledge of these advanced ICT.

3. Life cycle management, value engineering and design, innovation:

The Master's course follows a holistic approach: the deployment of new technologies is considered in each phase of the life cycle, from marketing and project development up to re-use and disassembly. Due to the elementary approach of open systems and subsystems, the life cycle of a building can be extended by upgrading or repairing one element without destroying the whole system. This approach is common in aerospace industries. In the construction industry, secondary resource utilisation helps to increase the total resource efficiency of building performance. The students apply management of technology, processes and projects, with their technological interdependencies and socio-economic boundary constraints. By studying intercultural cases in design, production, and management, the students acquire cross-cultural experiences which are invaluable for a future professional

international career.

Future socio-ecological engineers will be prepared to tackle as yet unknown challenges by designing solutions for a future technology, economy, ecology and society. They apply frontier science competence and consistently define cross-disciplinary domains. The Master's Course in Advanced Construction and Building Technology can be considered as an incubator for strategic design and development of continuous improvement and innovation for lifelong learning.

Course Description (read more)

Educational Organisation

A widespread theoretical basic knowledge (theory), the transfer of methods and tools for problem-solving and project realisation (methodology), and the possibility to acquire problem- and interest-specific knowledge (specialisation) constitute the foundations of the Master's course.

First semester (30 ECTS):

During the first semester basic knowledge is increasingly imparted. As regards content the basic knowledge is widespread and ranges from construction systematic basics via logistics and manufacturing/construction processes to life cycle-relevant technologies and assistive systems in buildings. Basics in innovation development and socio-technological aspects are also imparted. A small pre-project introduces students to the project work and helps them to understand their strengths and weaknesses at an early stage.

Second and third semesters (30 ECTS each):

During the second and third semesters priority is given to project work. The tasks are set in such a way that students are able to use the basic knowledge they have acquired, developing this further into a personal approach. The problem-oriented approach will motivate students to acquire specific knowledge through the elective subjects. Interdisciplinary basics are also imparted in an integrated manner via "learning by doing". The elective subjects are the second focus in the second and third semesters. Through these, students can "line" their projects and integrate their personal preferences. In addition, further obligatory subjects are deepened in the thematic fields of industrialisation strategies, life cycle-relevant technologies and assistive systems in buildings as well as innovation development.

Fourth semester (Master's thesis/30 ECTS):

In the Master's thesis the basic and specific knowledge gained by the students is merged with acquired skills and methods. Depending on the interests and skills of the students, the task can either involve aspects of theory, methodology/project, and specialisation, or it can focus on one topic. The elaboration of the Master's thesis can take place as a pure project or as a purely scientific-theoretical discourse, these being the two "extremes" in the spread of possible configurations. Usually a balance is aimed at in order to fulfil the principle of an equally widespread and varied education.

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

45 EUR per Semester

Required Entry Qualification Profile (read more)

Language Requirements

Applicants must provide proof of their English skills.

Required DSH / TestDaF

No

Required English Language Test

No

Academic requirements

1. Applications are invited from candidates with an above-average Bachelor's degree (at least six semesters) or equivalent certificate from a recognised university in the areas of engineering sciences, natural sciences, economics, engineering-/technology-related humanities, geronto-technology-related medicine, architecture, and design.

2. If English is not your native language or was not the official language of tuition of your previous course of study, a TOEFL, an IELTS or an examination of the Cambridge Main Suite of English is required (for required score please contact us).

3. For admission to the course, successful completion of the entrance exam (in the form of an interview) for the Master's degree in Advanced Construction and Building Technology is usually required.

If you are not sure whether you fulfil the admission requirements, please contact us. It will be a pleasure for us to advise you!

**(43) University of Augsburg:
Advanced Functional Materials (FAME)**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1599&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science (double degree)

Awarded by the two consortium universities where the students have studied; recognised in each partner country

In Cooperation with

- Grenoble INP, France
- Univ. Bordeaux 1, France
- Univ. Aveiro, Portugal
- Univ. Louvain, Belgium
- Univ. Liège, Belgium
- TU Darmstadt, Germany

Course Language(s)

English (courses, Master's thesis)

Beginning of Programme

Winter semester (middle of October)

Programme Duration

Four semesters

Application Deadline

Non-EU applicants: 10 January for the following winter semester

EU applicants: 30 April for the following winter semester

Description of Content

This international Master's course is designed to provide a two year (120 ECTS) educational programme in Advanced Materials Science within seven universities of the FAME Network of Excellence in four European countries (Germany, France, Belgium and Portugal) that host world-renowned leading research laboratories in the field of advanced materials science. The course aims at providing high-level academic and research-oriented education about the synthesis, the characterisation, and the processing of all classes of functional materials with special emphasis on hybrids, ceramics and smart nano-materials.

Course Description (read more)

Educational Organisation

Semester 1 and 2: Augsburg or Grenoble: Fundamentals in Advanced Materials Science

Semester 3: Specialisation

- INP Grenoble: Materials for Micro- and Nanotechnologies
 - U Augsburg: Materials Interfaces: Surfaces, Composites and Coatings
 - U Darmstadt: Functional Ceramics: Processing, Characterisation and Properties
 - U Aveiro: Nanomaterials and Hybrids
 - U Louvain: Engineering of Materials and Nanostructures
 - U Liège: Nanomaterials and Modelling
 - U Bordeaux: Hybrid Materials and Ceramics: Design, Synthesis and Properties
- Semester 4: Master's thesis in one of the research laboratories of the FAME Network of Excellence or in the industry

Costs, Fees and Funding (read more)

Tuition Fees

EU students: 1,000 EUR per year

Non-EU students: 8,000 EUR per year around 5 lack rs per sem

Enrolment Fees

Approx. 80 EUR per semester (including public transport, semester ticket)

equired Entry Qualification Profile (read more)

Language Requirements

English: TOEFL 550 (paper-based), 213 (computer-based), 79 (internet-based); IELTS (6); or equivalent

Required DSH / TestDaF

No

Required English Language Test

Yes

WWW

**(44) TU Dortmund University:
Automation and Robotics**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=206&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Uni : <http://www.automationrobotics.tu-dortmund.de/>

Uni: courses : <http://www.automationrobotics.tu-dortmund.de/en/course-info/course-plans.html>

Degree

Master of Science (MSc) in "Robotics", "Process Automation" or "Cognitive Systems"

Course Language(s)

English

Classes for proficiency in German are offered.

Beginning of Programme

October each year

Programme Duration

Two years including six months of thesis work

Application Deadline

31 March of each year

Description of Content

The programme is interdisciplinary, covering all important areas of Automation & Robotics, Process Automation and Cognitive Systems with contributions from the Departments of Mathematics, Electrical Engineering & Information Technology, Mechanical Engineering, Computer Science, Chemical Engineering and the Institute of Robotics Research.

An up-to-date curriculum is guaranteed by lectures and laboratories directly related to ongoing research projects.

Course plans

The study course comprises several modules, each of which is constructed from one or multiple subjects. All subjects in a module contribute to a common topic of a particular branch of teaching and research. Modules are assigned to one of the following categories, namely

Mandatory modules

Electives

The list below summarizes the structure of all modules and their (tentative) assignment to the different terms of studies.

For each successful examination the candidates are rewarded by marks and credit points. If enough credits in a particular module have been collected, this module is considered to be successfully passed.

The major selected by a student is defined by selecting the appropriate modules during the curriculum. Either Robotics or Process Automation may be chosen.

The M.Sc. course is considered completed successfully if enough credit points have been

collected and ALL mandatory modules for one of the particular majors have been passed.

Click to the individual subject names to retrieve an PDF file with detailed information.

The schedules of studies for the majors **Robotics** and **Process Automation** offer a short overview and further detailed information on each subject.

All the course offers are governed by our **official documents** which give the details on the formal framework of the course

Admission Regulations

Examination Regulations

Study Regulations

Course Plan Robotics

Major: ROBOTICS	
Teram	Module
I	Mandatory Subjects
	<u>Advanced Engineering Mathematics</u>
	<u>Control Theory and Applications</u>
	<u>Computer Systems</u>
	<u>Fundamentals of Robotics</u>
	<u>Object Oriented Programming</u>
II + III	Module: Robotics
	<u>Robotic Theory</u>

<u>Autonomous Robots</u>	
<u>Application of Robots</u>	
<u>Simulation in Robotics</u>	
Module: Control	
<u>Logic Control</u>	
Module: Lab Work	
<u>Practical Training Robotics</u>	
Module: Seminar	
<u>Seminar in Robotics</u>	
Module: Project Group	
<u>Robotics Project</u>	
Module: Mathematics	Module: Optimization
<u>Numeric Solution of Differential Equations</u>	<u>Scheduling Problems and Solutions</u>
<u>Mathematics of Kinematics</u>	<u>Optimization</u>
<u>Statistics for researchers in Engineering Sciences</u>	<u>Computational Intelligence</u>
	<u>Simulation and Modeling</u>

	<u>Mathematical and Practical Aspects of Finite Elements</u>
	Module: Systems
	<u>Introduction to Embedded Systems</u>
	<u>Distributed Systems</u>
	<u>Local Networks - Communication and Control</u>
	<u>Discrete and Hybrid Systems</u>
	Module: Process Automation
	<u>Control Design</u>
	<u>Batch Process Operations</u>
	<u>Advanced Process Control</u>
	<u>Modelling of Dynamic Systems</u>
	Module: Sensors and Signal Processing
	<u>Signal Processing for Robotics and Control</u>
	<u>Computer Vision</u>
	<u>Sensors</u>
	Module: General Education
IV	Master Thesis

Course Plan Process Automation

Major: PROCESS AUTOMATION	
Term	Module
I	Mandatory Subjects
	<u>Advanced Engineering Mathematics</u>
	<u>Control Theory and Applications</u>
	<u>Computer Systems</u>
	<u>Fundamentals of Robotics</u>
	<u>Object Oriented Programming</u>
II + III	Module: Process Automation
	<u>Advanced Process Control</u>
	<u>Modeling of Dynamic Systems</u>
	<u>Control Design</u>
	<u>Batch Process Automation</u>
Module: Control	
<u>Logic Control</u>	
Module: Lab Work	
<u>Process Control Lab</u>	

Module: Seminar

Seminar in Process Automation

Module: Project Group

Process Automation Project

Module: Mathematics

Numeric Solution of Differential Equations

Mathematics of Kinematics

Statistics for researchers in Engineering Sciences

Mathematical and Practical Aspects of Finite Elements

Module: Optimization

Scheduling Problems and Solutions

Optimization

Computational Intelligence

Simulation and Modeling

Module: Systems

Introduction to Embedded Systems

Distributed Systems

Local Networks - Communication and Control

Discrete and Hybrid Systems

Module: Robotics

Robotic Theory

Autonomous Robots

Application of Robots

Simulation in Robotics

Module: Sensors and Signal

	<table border="1"> <tr> <td style="background-color: #92d050; text-align: center;">Processing</td> </tr> <tr> <td><u>Signal Processing for Robotics and Control</u></td> </tr> <tr> <td><u>Computer Vision</u></td> </tr> <tr> <td><u>Sensors</u></td> </tr> </table>	Processing	<u>Signal Processing for Robotics and Control</u>	<u>Computer Vision</u>	<u>Sensors</u>
Processing					
<u>Signal Processing for Robotics and Control</u>					
<u>Computer Vision</u>					
<u>Sensors</u>					
	Moduel: General Education				
IV	Master Thesis				

Educational Organisation

In the first semester fundamental courses are taught while in the next two semesters a wide range of technical electives is offered from all areas involved. The programme includes a large portion of laboratory work in order to provide students with hands-on experience with modern technology.

The degree is granted upon successful completion of the course and lab work and a thesis (six months).

For more detailed information please visit our website:

www.automationrobotics.uni-dortmund.de/

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

Each semester students are required to pay about 170 EUR as an enrolment fee. This fee includes a semester ticket covering public transport in the Dortmund and a large metropolitan area.

Required Entry Qualification Profile (read more)

Language Requirements

Since the programme is almost exclusively taught in English, applicants must have a TOEFL/IELTS or an equivalent certification (TOEFL computer-based test: score 217/paper-based test: score 550).ibt 82.....

Required DSH / TestDaF

No

Required English Language Test

No

**(45) University of Applied Sciences Lübeck:
Biomedical Engineering, Master of Science, MSc**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2887&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science in Biomedical Engineering

In Cooperation with

Universität zu Lübeck

Course Language(s)

English (100 %)

Beginning of Programme

Winter semester - September

Programme Duration

18 months

Application Deadline

International applicants: 1 January to 1 May

Description of Content

Both the University of Luebeck and the Luebeck University of Applied Sciences welcome students from all over the world to increase their knowledge in Biomedical Engineering.

The Master's Programme in Biomedical Engineering in Luebeck is designed for students who wish to pursue careers in research and development, academia, or industry. The goal of the programme is to educate students in the interdisciplinary fields of engineering and medicine.

"Biomedical engineering integrates physical, chemical, mathematical, and computational sciences and engineering principles to study biology, medicine, behaviour, and health. It advances fundamental concepts; creates knowledge from the molecular to the organ systems level; and develops innovative biologics, materials, processes, implants, devices and informatics approaches for the prevention, diagnosis, and treatment of disease, for patient rehabilitation, and for improving health" (source: Whitaker Foundation).

Course Description (read more)

Educational Organisation

This programme's coursework is divided into three semesters. Each study programme begins in the winter semester.

First-semester students will be enrolled individually in courses with the aim of achieving common knowledge for all. Students with degrees in electronics, information technology, mechanical engineering, physics, process engineering, materials technology or mechatronics will be enrolled in introductory courses in medicine and medical technology in order to gain the necessary knowledge in these fields. Students with degrees in medical technology will be enrolled in technical courses as the main focus in order to increase their knowledge in these areas. Usually, a free intensive German course for BME students is provided each year from September to December.

During the second semester, students can enrol in specialised courses. The common basics

developed in the first semester will be expanded to include practical applications. This coursework will focus mainly on project-oriented teamwork.

Third-semester students will complete an internship as well as prepare and write a Master's thesis.

Costs, Fees and Funding (read more)

Tuition Fees

No tuition fees

Enrolment Fees

100 EUR per semester. Fee includes a semester ticket covering public transport in the Luebeck metropolitan area

Required Entry Qualification Profile (read more)

Language Requirements

Applicants must provide proof of their English skills. English: TOEFL 550 (paper-based), 80 (internet-based) or equivalent

Required DSH / TestDaF

No

Required English Language Test

Yes

(46) University of Magdeburg: Chemical and Energy Engineering

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1157&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Educational Organisation

We start the programme with some fundamental lectures on topics such as flow dynamics, thermodynamics, heat and mass transfer, chemistry, mechanical, thermal and chemical process engineering. This will help students from different countries and various academic backgrounds to reach the same scientific level. Afterwards, we continue with lectures on the application of chemical engineering. At this point, the students can arrange their own modules with lectures and tutorials within the offered courses depending on individual interest. The fourth and final semester is reserved for the Master's thesis as the culmination of the programme.

Costs, Fees and Funding (read more)

Tuition Fees

None

Enrolment Fees

64.50 EUR per semester. The semester fee covers services offered by the Student Services Office and the student representatives, as well as the semester ticket for public transport.

Costs of Living

Required Entry Qualification Profile (read more)

Language Requirements

Applicants must provide proof of their English skills:

TOEFL (Test of English as a Foreign Language)

Minimum score: 550 (paper-based), 213 (computer-based), 80 (internet-based)

Required DSH / TestDaF

No
Required English Language Test
Yes

**(47) TU Dortmund University:
Chemical Engineering - Process Systems Engineering**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=137&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

International English Language Testing System (IELTS)
with an overall score of 7.5 with a score of at least 6.0 in each test element

**(48) University of Wuppertal:
Computational Mechanical Engineering (MSc)**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=506&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Attachment—46 Syllabus (Subjects)

Degree

Master of Science in Computational Mechanical Engineering

Course Language(s)

English is the language of instruction.

Beginning of Programme

Annually in October

Programme Duration

Two years (four semesters)

Application Deadline

By 31 May

Description of Content

This is a complete course in using computer-aided techniques in order to calculate and simulate problems of structural mechanics, fluid mechanics and mechatronics. Additionally, the students are taught management techniques. The education process is supported by projects which must be conducted by the students during each semester.

Additional Information:

mbau.uni-wuppertal.de/index.php?id=66

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

There are no enrolment fees. Students only have to pay a compulsory fee including a social contribution called "Sozialbeitrag", a contribution to the student body called "Studentenschaftsbeitrag" and a fee for the "NRW-Ticket" for public transport within the

state of North Rhine-Westphalia. The compulsory fee amounts to about 200 EUR per semester and is not a university fee.

required Entry Qualification Profile (read more)

Language Requirements

Sufficiently good proficiency in English, documented by providing the results of a recently passed Test of English as Foreign Language (TOEFL), International English Language Testing System (IELTS, academic module), a Cambridge Certificate in Advanced English (Level 4) or another language certificate at the level B2 of the European Framework of Reference. The minimal scores for the TOEFL and IELTS are as follows:

- TOEFL, IBT (internet based) 79 points
- TOEFL, PBT (paper based) 550 points
- IELTS (academic module) 6.0 band score

If the Bachelor courses have been verifiably taught in English, an additional language test is not required.

Required DSH / TestDaF

No

Required English Language Test

Yes

(49) FH Aachen - University of Applied Sciences: European Master of Science in Nuclear Applications

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1311&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Application Deadline

15 November of every year for the programme beginning the following March
15 June of every year for the programme beginning the following September

Study Focus:

- Nuclear energy production
- Nuclear fuel cycle
- Radioecology
- Radiation measurement
- Radionuclide production
- Biomedical applications
- Radiation safety

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Optional but recommended German lessons are about 300 EUR per semester, including books.

Language Requirements

Proof of English language ability such as TOEFL (68 IBT, 520 paper-based test, 190 computer-based test), IELTS 5.5, or German Abitur or Fachhochschulreife grade 3 in English, or equivalent

German is not required for admission.

Required DSH / TestDaF

No

Required English Language Test

Yes

**(50) University of Applied Sciences Emden/Leer:
Master of Engineering in Technical Management**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1026&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Engineering in Technical Management

Course Language(s)

All mandatory course lectures and most required optional course lectures are held in English.

All exams are held in English.

Intensive German courses are offered at three different levels.

Beginning of Programme

1 October or 1 March

Programme Duration

Two semesters of lectures plus one semester devoted to an individual project and the Master's thesis

Application Deadline

30 April for the semester starting 1 October

30 September for the semester starting 1 March

Description of Content

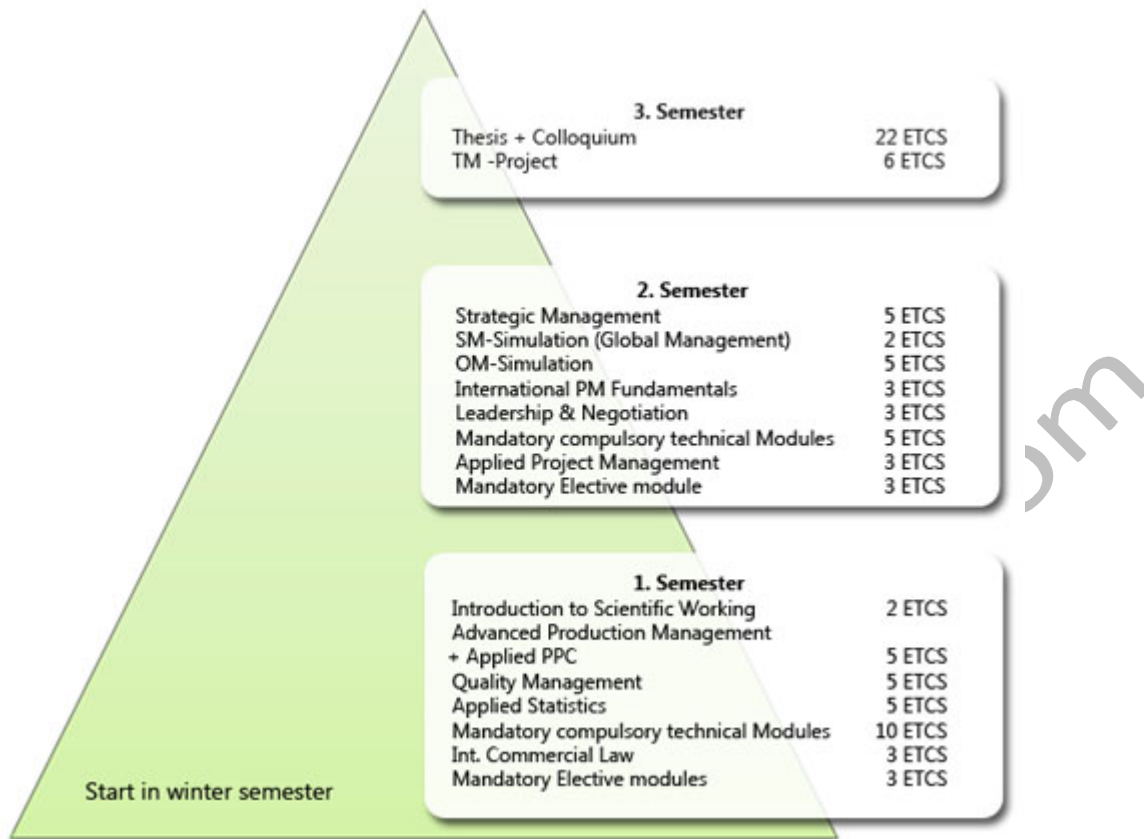
Management Subjects: for example Quality Management Systems, Production Management Systems, Strategic Management, Project Management, Negotiation Techniques and Leadership

Technical Subjects: for example SAP R/3 Advanced Course, Java Advanced Course, Wind Energy Plants, Advanced Materials, CAD

Extensive scientific engineering project work

Master's thesis project

Courses survey with start in winter semester



Costs, Fees and Funding (read more)

Tuition Fees

725 EUR per semester

Any change will be announced on our website: www.technicalmanagement.de

Enrolment Fees

The service fee charged for studying at the FH OOW is 209 EUR per semester (at time of publishing). This includes a semester ticket, which entitles students to free use of local public transport in and around Emden, as well as trains to Hamburg, Hannover and Oldenburg for one semester (six months).

Required Entry Qualification Profile (read more)

Language Requirements

Proficiency in English (computer-based TOEFL 220, or equivalent test)

Required DSH / TestDaF

No

Required English Language Test

Yes

(51) FH Aachen - University of Applied Sciences: Master of Science in Biomedical Engineering

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1114&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science in Biomedical Engineering

Course Language(s)

English is the language of instruction. German language lessons are available.

Beginning of Programme

March of every year. See www.fh-aachen.de/master.html for further information.

Programme Duration

Four semesters

Application Deadline

15 November every year for the programme beginning the following March. See www.fh-aachen.de/master.html for further information.

Description of Content

Students acquire a wide-ranging, integrated knowledge and understanding of the scientific and technical fundamentals of their field of study. They have at their disposal a critical understanding of the basic theories, principles and methods dealt with during their studies, and are in a position to broaden this knowledge independently.

Moreover, students gain the ability to collect and interpret data and use it to infer scientifically-based judgements, as well as to implement appropriate solutions which take into account social, scientific and ethical issues and to construct continuous learning processes independently. They learn how to formulate and defend opinions and solutions with reference to their specific field, to exchange information, ideas and problems and solutions with experts and laymen, and work responsibly in modern professional life.

Our modern, well-equipped labs play a major role in ensuring that students are later able to apply their knowledge to their chosen careers. Advanced students plan projects together, work towards a common goal and then present the results in a written report as well as to the class.

Our instruction methods include problem-based approaches and integrated team work. By offering modules in business and management, research planning and scientific writing, students obtain skills necessary for their future success.

Biomedical engineering is a multidisciplinary field in which the principles of engineering are applied to solving problems in biology or medicine. It applies quantitative, analytical, and integrative methods from the molecular level to that of the whole organism.

First Semester:

- Basic Medical Bridging Courses
- Basic Engineering Bridging Courses
- German language courses

Second Semester:

- Artificial Organs I
- Cellular and Molecular Biophysics I
- Biosensors and Chemical Sensors
- Medical Imaging
- Medical Statistics
- Cardiovascular Mechanics
- Continuum Mechanics
- Laser Applications in Medicine and Biology
- Research Planning and Scientific Writing

Third Semester:

- Artificial Organs II
- Cellular and Molecular Biophysics II
- Dynamic Systems and Computer Modelling
- Biomaterials and Biocompatibility
- Molecular Biology and Genetics
- Biomechanics
- Cell Culture Technology
- Laser Technology
- Finite Element Methods
- Extracorporeal Cardiovascular Fluid Mechanics
- Integrated Circuit Design

**(52) University of Kaiserslautern:
Master of Science in Commercial Vehicle Technology**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1916&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Required Entry Qualification Profile (read more)

Language Requirements

German language proficiency: A 2-level (basic knowledge) in the Common European Frame of Reference for Languages at the time of arrival in Kaiserslautern

English language proficiency: TOEFL (550 paper-based, 213 computer-based, 80 internet-based)

or IELTS (6.0) or equivalents for application

A German Language Course (up to level B2) is part of the programme.

Required DSH / TestDaF

Yes

Required English Language Test

Yes

**(53) FH Aachen - University of Applied Sciences:
Master of Science in Energy Systems**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1116&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science in Energy Systems

Course Language(s)

English is the language of instruction. German language lessons are available.

Beginning of Programme

March and September of every year. See www.fh-aachen.de/master.html for further information.

Programme Duration

Four semesters

Application Deadline

15 November of every year for the programme beginning the following March.

15 June of every year for the programme beginning the following September.

Description of Content

Students acquire a wide-ranging, integrated knowledge and understanding of the scientific and technical fundamentals of their field of study. They have at their disposal a critical understanding of the basic theories, principles and methods dealt with during their studies, and are in a position to broaden this knowledge independently.

Moreover, students gain the ability to collect and interpret data and use it to infer scientifically-based judgements, as well as to implement appropriate solutions which take into account social, scientific and ethical issues and to construct continuous learning processes independently. They learn how to formulate and defend opinions and solutions with reference to their specific field, to exchange information, ideas and problems and solutions with experts and laymen, and work responsibly in modern professional life.

Our modern, well-equipped labs play a major role in ensuring that students are later able to apply their knowledge to their chosen careers. Advanced students plan projects together, work towards a common goal and then present the results in a written report as well as to the class.

Our instruction methods include problem-based approaches and integrated team work. By offering modules in business and management, research planning and scientific writing, students obtain skills necessary for their future success.

Students learn about thermal solar systems, fossil energy techniques, nuclear systems, wind energy, fuel cells, photovoltaics, resource technologies, advanced modelling techniques and energy sustainability.

First Semester Courses:

- Fundamentals of Engineering
- Basics of Energy Systems
- Mathematical Tools and Simulations
- Industrial Energy Technology
- Modelling of Systems and Processes
- Business Administration and Energy Economics and Policy

Second Year:

Students select three modules from the following topics in the second year:

- Energy Efficiency
- Renewable Energy Systems
- Fossil Energy Techniques
- Energy Applications
- Advanced Modelling Techniques
- Plant Engineering
- Transformation of Energy
- Sustainable Energy Systems and Energy Economics
- Materials in Energy Techniques

- Communication and Computer Skills
- Management Skills

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Optional but recommended German lessons are about 300 EUR per semester, including books.

Enrolment Fees

The student activity fee is currently about 200 EUR per semester.

Required Entry Qualification Profile (read more)

Language Requirements

Proof of English language ability such as TOEFL (68 IBT, 520 paper-based test, 190 computer-based test), IELTS 5.5, or German Abitur or Fachhochschulreife grade 3 in English, or equivalent

German is not required for admission.

Required DSH / TestDaF

No

Required English Language Test

Yes

**(54) University of Oldenburg:
Master of Science in Engineering Physics**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1085&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Required DSH / TestDaF

Yes

**(55) Kiel University:
Master of Science in Materials Science and Engineering**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1139&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science

Course Language(s)

English

German language courses are offered at various levels.

Beginning of Programme

Annually at the beginning of October

Programme Duration

Two years

Application Deadline

1 May, application documents: www.kielmat.com

Description of Content

The course in Materials Science at Kiel is directed towards functional (or operational) materials which have properties particularly suited for use in sensor technology, fuel cells, smart materials, micro electronics, solar cells, optics or nanotechnology. Basic research, material development, analysis and process engineering are combined with subjects such as economic viability and environmental issues to form a modern technical engineering course. The course programme in Materials Science is based on modern educational units, which comprise theoretical and lab training provided by highly-qualified and internationally renowned researchers.

Costs, Fees and Funding (read more)

Tuition Fees

There are no tuition fees.

Enrolment Fees

An enrolment fee must be paid each semester, currently amounting to 102 EUR which includes free bus transport.

Required Entry Qualification Profile (read more)

Language Requirements

Evidence of a good command of English:

- TOEFL 213 (computer-based)
- IELTS 6.0

Required DSH / TestDaF

No

Required English Language Test

Yes

(56) FH Aachen - University of Applied Sciences: Master of Science in Mechatronics

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=901&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Required DSH / TestDaF

Yes

Degree

Master of Science in Mechatronics

Course Language(s)

English (90%) and German (10%)

All obligatory modules are taught in English, only some of the elective modules are held in German.

Beginning of Programme

End of September

Programme Duration

Four semesters

Application Deadline

30 April

Description of Content

Fundamentals of Mechanical/Electrical Engineering, Sensors & Actuators, Advanced Mathematics, Computer Science, Mechatronics System Simulation, Advanced Motion Control, Advanced System Control, FEM Simulation, Advanced Fabrication Technology, Micromechatronic Systems, Application of Mechatronic Systems (Robotics), Virtual Reality and Graphical Simulation, Automobile Mechatronic Systems

Course Description (read more)

Educational Organisation

In the first semester, all students have to master the basics of electrical engineering (if they have a background in mechanical engineering) or mechanical engineering (if they have a background in electrical engineering), advanced mathematics and an introduction to Sensors and Actuators as basic components of mechatronics systems. In the second and third semester, the students have to study further compulsory modules (e.g. investigating the system behaviour of mechatronic systems) and can focus on their specialisation by choosing appropriate elective courses. An integrated project with a duration of two semester has to be carried out by teams of three to six Master's students. In the last term, the students have to write a Master's thesis on a research and development project, for which students can work either in the university or in industry.

Costs, Fees and Funding (read more)

Tuition Fees

500 EUR per semester

Enrolment Fees

Student activity fee of approx. 200 EUR per semester

Language Requirements

Proof of English language ability such as TOEFL (550 paper based test, 213 computer based test, 79 internet based test) or IELTS 6.0

Proof of moderate German language abilities such as Zertifikat Deutsch (B1) or equivalent

Required DSH / TestDaF

Yes

Required English Language Test

Yes

(57) Aalen University:

Master of Science in Polymer Technology

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=913&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&ip tuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science

Course Language(s)

English taught courses

German language course is integrated in the syllabus.

Beginning of Programme

March - summer semester

Programme Duration

Four semesters

Application Deadline

15 December

Description of Content

The Postgraduate Course in Polymer Technology provides a clear focus on the requirements of the plastics industry. Find your springboard into a future-oriented field of global importance. Which other engineering material has such rich innovative properties? To be well prepared for a future in Plastics Technology you need a good basic knowledge about:

- Many materials, not only about plastics
- Sophisticated testing methods
- Design of moulds and parts in every conceivable field
- Computer Aided Engineering, simulation technology
- Polymer processing

(58) University of Applied Sciences Jena: Master of Science in Scientific Instrumentation

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1262&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Attachment==55 (Syllabus)

Degree

Master of Sciences (MSc) in Scientific Instrumentation

Course Language(s)

English

Beginning of Programme

The lecture period starts at the beginning of October with an introduction week at the end of September.

Programme Duration

Four semesters (three semesters for courses and laboratory work, one semester thesis)

Application Deadline

The deadline for application is 1 June. Free places will be filled in a second round with a deadline of 15 July.

Description of Content

Depending on the prerequisites of each individual student, the first semester includes foundation modules on advanced topics of applied physics or precision engineering. Beginning in semester two, the students choose two areas of specialisation out of four: micro- and nanotechnology, metrology and analytics or instrument design. Except for the modules in life science applications, the language of instruction of the entire curriculum is English. Semester four is dedicated to research work on the Master thesis.

Costs, Fees and Funding (read more)

Tuition Fees

No tuition fees

Enrolment Fees

150 EUR per semester

The enrolment fee includes free public transport (trains, buses) in the greater Jena area.

Required Entry Qualification Profile (read more)

Language Requirements

Good knowledge of the English language, demonstrated via a TOEFL score of 550 (paper-based), 213 (computer-based), or 79 (internet-based), or an IELTS overall band score of 6.0. The test should not be older than three years.

Applicants from countries where English is an official language or who speak English as a native language or students from one of our partner universities may apply to be exempted from TOEFL or IELTS.

Required DSH / TestDaF

No

Required English Language Test

Yes

(59) University of Augsburg: Materials Science

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1283&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Degree

Master of Science

Course Language(s)

Courses and exams are held in English. Optional German language courses are offered.

Beginning of Programme

Middle of October (winter semester)

Middle of April (summer semester)

Programme Duration

Four semesters (three semesters for courses and laboratory work, one semester for thesis)

Application Deadline

31 May for the following winter semester

30 November for the following summer semester

Description of Content

This Master's course is designed to provide a two-year (120 ECTS) education in Materials Science. The University of Augsburg hosts one of the largest centres for Solid State research in Germany. The Physics Institute is part of the German excellence initiative with collaborations all over the world. Extremely well equipped modern laboratories provide the perfect environment for world renowned research.

The course aims at providing a high-level academic and research-oriented education about the synthesis, the characterisation and the processing of all classes of functional materials, with special emphasis on composites, hybrids, ceramics, smart and nano-materials.

Course Description (read more)

Educational Organisation

Semester 1 and 2:

- Fundamentals in Materials Science: Material Physics and Chemistry (structure, thermodynamics, defects, transport, electronic and magnetic properties)
- Characterisation Methods (high resolution imaging, spectroscopy)
- Processing of Materials (metals, ceramics, polymers; coatings, thin films; micro-

/nanostructuring)

- Method Courses

Semester 3: Specialisation

- Materials for Micro- and Nanotechnologies

- Materials Interfaces: Surfaces, Composites and Coatings

- Functional Materials: Magnetic, Semi- and Superconducting Materials

- Biological and Biocompatible Materials

- Hybrid Materials and Ceramics: Design, Synthesis and Properties

- Polymers, Soft Matter

Semester 4: Master's thesis in one of the research labora

Costs, Fees and Funding (read more)

Tuition Fees

480 EUR per semester

Enrolment Fees

Approx. 80 EUR per semester (including a semester ticket for public transport)

Required Entry Qualification Profile (read more)

Language Requirements

Good knowledge of the English language, typically demonstrated through a TOEFL score of (at least) 560 PBT or 220 CBT...ibt.....83.....

Required DSH / TestDaF

No

Required English Language Test

Yes

(60) University of Applied Sciences Kaiserslautern: Mechanical Engineering/Mechatronics (MEng)

<http://www.fh-kl.de/fachbereiche/aing/studieninteressierte/master/maschinenbau-und-mechatronik/master-mbmt-english-version.html>

Applicants from INDIA: Only graduates holding one of the above mentioned degrees from an Indian Institute of Technology (IIT) or a National Institute of Technology (NIT) are eligible for application. Applicants from other universities in India must give proof of at least three years of work experience.

& also 90=10 so cancelled bcz good subjs r in German

Degree

Master of Engineering in Mechanical Engineering/Mechatronics with specialisations in Mechanical Engineering (ME) or Mechatronics (MT)

Course Language(s)

The programme includes no obligatory modules, only elective modules. Approximately half of the modules are held in English, the other half in German. The language of instruction follows from the module's name. The Master's thesis can be written in either language. Participants can thus do their degree completely in English, completely in German or in a combination of the two. Those with a command of both languages have a larger choice of modules.

Beginning of Programme

Winter semester (beginning of October) and summer semester (mid-March)

Programme Duration

Three semesters (1.5 years)

Application Deadline

15 January for the following summer semester; 30 June for the following winter semester

Description of Content

The structure of the Master's course reflects our opinion that no one is better able than yourself to decide what is missing from your profile. That's why the programme does not include any obligatory modules, only elective modules. From the present "menu" of both English- and German-taught modules, graduates individually choose 60 ECTS. The Master's thesis (30 ECTS) completes the Master's programme.

The following English-taught modules are presently available:

- Energy systems (10 ECTS)
- Fluid mechanics (10 ECTS)
- Numeric methods (10 ECTS)
- Software engineering for embedded systems (10 ECTS)
- Product development: from need to market (10 ECTS)
- Structural durability (10 ECTS)
- Research module (10 ECTS; individual contents; once every semester)
- Mobility module (20 or 30 ECTS study abroad; only after completion of 30 ECTS in Kaiserslautern)

The following courses are German-taught (the name of the module reflects the language of instruction):

- Bildverarbeitung (10 ECTS)
- Leichtbaukonstruktion und Akustik (10 ECTS)
- Mechatronik (10 ECTS)
- Prozessentwicklung (10 ECTS)
- Virtuelle Produktentwicklung: Werkzeuge und Verfahren (10 ECTS)
- Virtuelle Produktion und Logistik (10 ECTS)
- Forschungsmodul (10 ECTS)
- Mobilitätsmodul (20/30 ECTS)

The course places a strong emphasis on cross-linking various disciplines. This is supported by the participation of at least two professors, each competent in his or her own field, who are responsible for each and every module. They look at a topic from different viewpoints and merge them in one diversified module (10 ECTS).

In accordance with the modules overview on our homepage, each module is attributed an allocation number "ME" for mechanical engineering and "MT" for mechatronics. The highest summation of the numbers of all the chosen modules defines the specialisation on the final certificate: either "mechanical engineering" or "mechatronics".

According to the structural requirements of all modules, we have integrated acquisition of knowledge, practical implementation in group work, assessment of economic consequences and development of leadership skills into each and every module. The modules are thus manifold in theme, but identical in structure and learning outcomes

Costs, Fees and Funding (read more)

Tuition Fees

In the Federal State of Rheinland-Pfalz, every student receives a "study account" free of charge, worth 360 ECTS. This applies to all national, EU and non-EU students. Thus, practically no study fees are charged under normal circumstances.

Enrolment Fees

Currently 192.54 EUR per semester (2010; see homepage for changes). Fee includes a semester ticket covering public transport in the greater Kaiserslautern region as well as student union membership (discount on meals, etc.)

Required Entry Qualification Profile (read more)

Language Requirements

If courses in German are selected and German is not their native language, applicants should have linguistic proficiency of level B2 GER, Test-DaF 4 or equivalent. Proof thereof is desired but not required.

If courses in English are selected and English is not their native language, applicants should have linguistic proficiency of TOEFL >79/213/550, IELTS>6.5 or equivalent. Proof thereof is desired but not required.

Linguistic proficiency can also be made plausible by relevant stays in the language area.

Required DSH / TestDaF

No

Required English Language Test

No

(61) University of Erlangen-Nürnberg: MSc in Advanced Optical Technologies (MAOT)

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2284&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Description of Content

Six topics:

- Optics in Communication: optical communication system technology is one of the most rapidly evolving fields pushed by an ever increasing demand for higher data transport capacity and longer transmission length. From these demands many exciting challenges for the development the next generation optical networks arise. The module Optics in Communication and IT provides the knowledge required to face these challenges.
- Optical Metrology: light is an excellent tool for gaining remote information without any contact to the object. Besides their contactless mode of operation, optical measuring techniques owe their rapid spread into technology and science to their measuring accuracy and their high spatial and temporal resolution
- Optical Material and Systems: novel optical materials and efficient light sources provide the basis for optical systems design. Tailor-made optical materials and elements with engineered optical functionality have benefited from the technological progress in micro- and nanostructuring.
- Optical Material Processing: light as a tool has revolutionised industrial manufacturing. Within the last decade the laser in particular has changed automotive construction, micro and nanotechnology. It nearly replaced traditional manufacturing methods like spot welding and

has become a standard tool. The rapid progress in computer technology was only possible through modern optical technologies

- Computational Optics: numerical simulations and computer based techniques are an essential tool in optical technologies. The vast field of applications includes image based modelling and rendering, multi-dimensional data visualisation, computer vision as well as simulation and optimisation of optical systems, lasers or optical fields in nanostructures. The dramatically increased power of today's computer systems makes it possible to solve tasks that only few years ago seemed unfeasible. The module Computational Optics provides the basic knowledge necessary for the generation and implementation of such computer based methods and simulations.

- Optics in Medicine: laser and optical technology in general are an essential part of diagnostics and therapy in modern medicine. In order to understand the interaction between light and biological tissue it is necessary to have fundamental knowledge of both.

**(62) University of Erlangen-Nürnberg:
MSc in Chemical and Bioengineering**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1031&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Course Language(s) : English (50%), German (50%)

**(63)Hamburg University of Applied Sciences:
Pharmaceutical Biotechnology**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2180&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=15>

Description of Content

The following modules are offered:

1. Biopharmaceutical Production, with the courses "Pharmaceutical Biochemical Engineering" including labs and "Purification Techniques" including a special course
2. Pharmaceutical Technology, with the courses "Pharmacology", "Drug Development & Formulation" and "Good Manufacturing Practice"
3. Cell Culture Systems, with lectures in "Cell Culture Techniques" and "Hosts & Expression Systems" as well as a special course in "Cell Culture Techniques"
4. Bioanalytics, with courses in "Off-line and At-line Analytics", "Biochemical Analytics" and "Bioassays"
5. Bioprocess Automation, with lectures and a special course on this subject
6. Process Simulation, with lectures and practice in Analysis, Modelling & Simulation of Bioprocesses
7. Biopharmaceutical Research, with "Lab Projects in Microbiology, Molecular Biology and Bioprocess Engineering" and the "Research Seminar"
8. Master's thesis

**(64) University of Oldenburg:
Postgraduate Programme Renewable Energy (MSc)**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=1190&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfasttrack=0&ipcombined=0&ipduration=0&ipp=50>

Degree

Master of Science (MSc) in Renewable Energy

Course Language(s)

English

Beginning of Programme

October, every year

Programme Duration

18 months (three semesters)

Application Deadline

- For regular DAAD-scholarships: 15 October (1 year before course starts)
 - For self-financing applicants/other scholarships: 15 January/extended deadline: 15 July
- Applications have to be submitted in English.

Description of Content

The programme consists of the following modules:

- Bridging Module
- Wind Energy and Energy Meteorology
- Photovoltaic
- Solar Thermal and Meteorology
- Energy Economics and Systems
- Energy Projects and Case Study
- Biomass, Hydro and Fuel Cells
- Thesis Project

Costs, Fees and Funding (read more)

Tuition Fees

1,000 EUR per semester (not for DAAD-scholars)

Enrolment Fees

Approx. 265 EUR per semester (including free travel ticket for local transport with bus and regional trains)

Required Entry Qualification Profile (read more)

Language Requirements

Applicants must provide proof of their English language skills, either TOEFL 550 (paper-based), 213 (computer-based), 79 (internet-based) or IELTS (band 5.5) or equivalent (e.g. previous studies in English or native speaker).

Required DSH / TestDaF

No

Required English Language Test

Yes

**(65) Bremerhaven University of Applied Sciences:
Process Engineering and Energy Technology**

<http://www.daad.de/deutschland/studienangebote/international-programmes/07535.en.html?ipid=2378&iplevel=2&ipterm=&ipterm2=&ipterm3=&ipfield=8&ipsubject=690&iptypehei=0&iptownhei=&iphei=0&iplangdistribution=0&iplangtest=0&iptuitionfees=0&ipjointdegree=0&ipparttime=0&ipfastrack=0&ipcombined=0&ipduration=0&ipp=15>

Applicants must provide proof of their German and English skills.

Degree

Master of Science

Course Language(s)

Courses are held in English (100%)

Beginning of Programme

Winter semester - October for non-consecutive course

Summer semester - March for consecutive course

Programme Duration

Four semesters non-consecutive course

Three semesters consecutive course

Application Deadline

15 January for the following winter semester

15 July for the following summer semester

Description of Content

The practice-oriented Master's course in Process Engineering and Energy Technology (PEET) is designed as a consecutive course over three semesters (90 CPS) and as a non-consecutive course over four semesters (120 CPS). Internationality as well as the application of modern teaching methods are to the fore: special focus is placed on the teaching of key competencies.

- 100% of the syllabus is taught in English
- Student exchanges and exchanges with universities abroad
- Master's thesis undertaken at home or abroad with a foreign professor
- Teaching of interdisciplinary qualifications (e.g. sales & marketing)
- Practical exercises to complement the lecture programme

These soft skills are very important for a qualified management position in an enterprise. Furthermore, additional qualifications, such as in simulation and management, are taught in the Master's course, and the area of energy and environmental technology is examined in greater depth. Successful completion of the Master's course with the title of "Master of Science" entitles the graduate to study for a doctorate (PhD).

Course Description (read more)

Educational Organisation

First semester:

- Numerical Mathematics
- Simulation of Process Control
- Determination of Properties
- Measurement of Properties
- Energy Operation Evaluation
- Innovation Management
- Leadership Building for Projects and Laboratory Skills

- Technical Risk Analysis Methods
- Product Development and Implementation Methods
- Optional Courses

Second semester:

- Simulation of Plant Process Technique
- Energy Integration
- Community and Industry Environmental Technology
- Environmental Plant Projects
- Personal and Organisation Management Case Studies
- Organisation Management Methods
- Plan, Design and Cost Project Analysis
- Optional Courses

Third semester:

- Master's thesis

Costs, Fees and Funding (read more)

Tuition Fees

Students who have already studied for more than 14 semesters will have to pay 500 EUR.

Enrolment Fees

205 EUR per semester

Fee includes a semester ticket covering public transport in the Bremerhaven/Bremen metropolitan area.

Required Entry Qualification Profile (read more)

Language Requirements

Applicants must provide proof of their German and English skills.

German: Level A 1 or equivalent

English: TOEFL 550 (paper-based), 213 (computer-based), 79 (internet-based) or equivalent

Required DSH / TestDaF

No

Required English Language Test

Yes

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