

International Automotive Engineering Master of Science



 facebook.com/fh.aachen

Creative Goods by
**CAMPUS
SPORTSWEAR**

Contents

International Automotive Engineering

- 04 International Automotive Engineering Master of Science Mission
- 06 Vehicle Integration and Design - From Individual Modules to a Whole, Functioning Vehicle
- 08 CAE - Technical Calculation - From the First Planning Idea to a Functional, Virtual Prototype
- 10 Testing and Validation - Anything That Is Meant to Go into Production Has to Pass Laboratory Tests
- 12 Electrics/Electronics Development - Integrated Solutions for Tomorrow's Demands
- 15 Project Management - The Nerve Center
- 16 Alumni Statements
- 19 Admission Requirements
- 20 Degree Programme Profile
- 22 Curriculum
- 34 Organisation
- 35 Addresses

All information about the degree programme can also be found on the internet. To this end, use a suitable reader to take a photo of the QR code.

fhac.de/master-automotive-engineering



International Automotive Engineering Master of Science Mission



© BMW AG

1st Place
German Universities of
Applied Sciences
Category **Mechanical
Engineering***
*University Ranking 2018
Wirtschaftswoche

On graduation from this degree programme, you can expect to have acquired an excellent education as well as preparation for a future job in the automobile industry and for starting a doctorate programme. The high level of academic education in a 3-semester degree programme, or a 4-semester dual degree programme, will support students in becoming professionals in their fields of expertise. In past years, the need for experts with know-how in vehicle integration has not been considered sufficiently. The degree programme attaches importance to practical exercises and includes relevant partners in the industry.

- > FEV Europe, Aachen
- > ETAS Group, Stuttgart
- > GIF-E, Alsdorf
- > ALTAIR Engineering GmbH, Böblingen
- > HEAD acoustics, Herzogenrath

The programme provides in-depth knowledge of industrial design approaches and research topics with regard to real-world vehicle requirements, market developments and legislative constraints.

This degree programme will prepare you excellently for being an expert in any kind of team during the development processes in the automobile engineering segment you will be working in.

- > Vehicle Integration and Design
- > CAE - Technical Calculation
- > Testing and Validation
- > Electrics/Electronic Development
- > Project Management

The degree programme not only comprises your major subjects “Powertrain Application” or “Vehicle Simulation”. You will, additionally, acquire versatile competences. The course of study takes place within the framework of international cooperation and is therefore taught in English. The training is supplemented by interdisciplinary modules, such as foreign languages, formation of a business, project management, or entrepreneurship, to name just a few.

Vehicle Integration and Design From Individual Modules to a Whole, Functioning Vehicle

Vehicle Integration Teams keep an eye on the entire development process. Organising projects in an economical manner is just as important as fulfilling all technical requirements.

The Vehicle Integration Team controls and monitors the defined requirements for vehicle safety, fuel consumption, emissions, acoustics and aerodynamics throughout the entire development process: from design, simulation, testing and validation to certification across all modules. It ensures the mechanical integration, the wedding of the powertrain/chassis system and the body while integrating electronic/electric systems and taking care of the homologation activities.

In order to plan for the validation of developments, it is important to establish project plans controlling the entire course of the project and covering all modules and functions. How many prototypes are needed? Which tests can be performed using which prototypes?



Together with the experts from all disciplines, the Vehicle Integration Team taps into synergy effects in order to reduce the prototype cost. The goal is to apply a development plan that is both time and cost effective. In order to comply with legal requirements, the Vehicle Integration Team ensures access to all applicable laws worldwide concerning vehicle development and supports the individual departments in their development efforts.



CAE - Technical Calculation From the First Planning Idea to a Functional, Virtual Prototype

Technical Calculation Teams ensure that functional requirements for individual vehicle modules are fulfilled all the way through the whole vehicle, prior even to construction of the first prototype.

Based on the DMU synchronization products, all relevant functions, such as vehicle safety, acoustics, aerodynamics, fuel consumption, exhaust emissions, operational stability, and rigidity of vehicle parts are tested virtually.

Results from the technical calculation enable to define ideal solution suggestions for the construction and the subsequent practical application to the prototype. Installation space analysis and packaging studies are also virtual parts of a full vehicle integration process.

Today's hardware infrastructure consisting of several computer clusters allows providing calculation and optimization results within a very limited amount of time. Furthermore, the Technical Calculation Teams constantly work on optimising the internal process times by programming their software tools accordingly. By working closely with the Testing Division Teams, intensive validations are performed to optimize simulation methods and explore new subject areas. Technical calculations are a vital success factor in validating all functional requirements within a limited amount of time.

A close-up photograph of a white car's front wheel and headlight area. The wheel is blurred, suggesting motion or a long exposure. The car is positioned on a test rig, with various mechanical components visible. The background is a plain, light-colored wall.

Testing and Validation Anything That Is Meant to Go into Production Has to Pass Laboratory Tests

In testing laboratories, virtual simulation results are tested and validated under real conditions. Whether single assemblies or the whole vehicle are tested, testing equipment enables to simulate any possible impact on the vehicle later on in real life situations (mechanical tests and environmental simulations, functional and life span tests of e.g. engine and transmission, vibroacoustic appraisals, passive vehicle safety, vehicle trials, ...).

Testing and Validation Teams are a vital part of the integrated development process. It is integrated with the Technical Calculation Teams and focuses on validating and confirming virtual simulation results. Testing results are immediately fed back to development and contribute to constant quality enhancement. There are no compromises for companies when it comes to quality.

From creating specifications and continuous development controlling, defining methods to documenting testing results in detail, the Vehicle Integration Teams ensure that tests are conducted with the required intent. Test results are used to benchmark the whole vehicle.

Electrics/Electronics Development Integrated Solutions for Tomorrow's Demands



Working on the basis of a requirement analysis, Electrics/Electronic Integration Teams work out concepts ranging from the definition of the electric/electronic architecture, or the development of hard and software, through to vehicle integration. By carrying out checks and tests on both software and hardware components throughout the development and production phases, the team guarantees ready-for-production solutions.

The electric design and development of the vehicle's electrical system are further elements in the service spectrum. They cover all relevant process stages, from the development of the concept for the electrical system, cable routing and component design through to the management of the suppliers concerned. Besides designing space requirements (package) and parts (e.g. electric/electronic components, cable harnesses, actuator/sensor technology, etc.), the Electronic Development Teams develop complete control units and guarantee their integration within the network of all the systems in the vehicle. Daily work is characterised by the frequent use of bus systems such as CAN, LIN, Most or Bluetooth and their corresponding tools.

The focus of the Electronic Development Team is on the development of safe, embedded systems in accordance with the IEC and ISO standard. The functional safety in the vehicle is greatly enhanced not only by the growing number of driver assistance systems, but is also due to ever-increasing demands on passenger and pedestrian protection.

Project Management

The Nerve Center



PROJECT MANAGEMENT

The challenge is bringing together customers, system developers and partners to work as an integrated team. To this end, minimising and supporting the interface is one of the key factors.

Development projects need to be well-structured and effectively organised so that their complexity remains at a controllable level, and deadlines, budgets and pre-defined quality goals can be met.

For successful project management, this is the guiding principle. Planning, continued testing, recognising optimisation potential and regulation make up the control system Project Management Teams have mastered. At the same time, standardised management methods have to be utilised that enable to adjust to individual client processes.

Project Management Teams ensure a project is handled optimally by establishing a clear analysis of customer requirements, defining product oriented responsibilities and by matching expectations with industry-specific application of each individual task.

Alumni Statements



Amulya Mantha

The Master's course of study at FH Aachen made my dream to study automotive engineering in Germany come true. A well-structured programme including individually chosen courses kick-started my career in the automotive industry. The faculty is keen, approachable, and always ready to offer guidance. Life in Aachen has been great, with lots of activities and opportunities to interact with local and international students. All in all, I would recommend studying in Germany.



Nitesh Shenoy

The vibrant student life in Aachen with its huge population of international students and FH Aachen being ranked every year as one of the top FHs in Germany made FH Aachen my dream university while applying to automotive engineering masters courses in Germany.

State of the art labs, professors who have had decades of practical experience in the industry, excursions to companies and guest lectures from industry experts makes sure that you are at the cutting edge of technology. One of the best aspects of the course is that the lectures are supplemented with hands-on practical sessions where you can apply the knowledge gained from the course directly on projects using the tools and hardware being currently used by the industry for their R&D work.

Hence, I believe that the Masters' program is an excellent springboard to a successful career in the automotive industry not only in Germany but also the entire world.



Admission Requirements

3-Semester Degree Programme

Only applicants with the following qualifications can be considered for the application procedure: An excellent Bachelor Degree in Automotive Engineering or Mechanical Engineering with corresponding specialisations, at least 210 ECTS

- > An excellent university degree in another engineering course of study.
- > Applicants, whose university entrance qualifications were not acquired at a German-speaking university, have to provide proof of knowledge of the German language: "Zertifikat Deutsch (A2)"-certificate for the admission to the degree programme, and "Zertifikat Deutsch (B1)"-certificate for the admission to the Master thesis.
- > Applicants, whose university entrance qualifications were not acquired at a university in a country that participates in the Bologna Process have to send a certified copy of the "Graduate Record Examination (GRE) - General Test" results.
- > Proof of English language skill (TOEFL/IELTS).

4-Semester Degree Programme

(Dual Degree Programme) Requirement of English language proficiency for RMIT enrolment:

- > If you have studied for at least 2 years and your qualification is taught and assessed in English, you may be deemed to have met the English requirement (an official letter from the institution stating the degree programme is entirely taught and assessed in English must be submitted).
- > Fachhochschulreife with, at least, the grade 3 ("Befriedigend") in English, or, Abitur with at least 7 points in English, or, DAAD language test with a minimum of B grades in all sections (completion within 5 years of RMIT program commencement).

Detailed information can be found at www.fh-aachen.de entering the following webcode: **11111131**

Degree Programme Profile

Choose your modules out of 2 specific Automotive subject catalogues and 1 General Competences subject catalogue

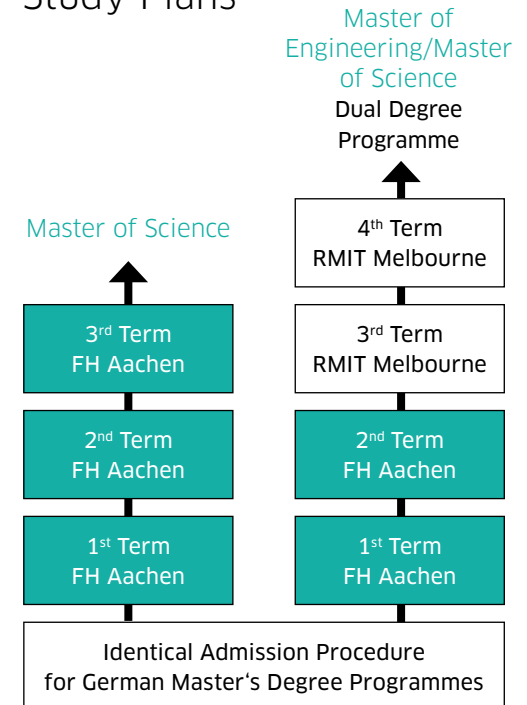
The Faculty of Aerospace Engineering of the FH Aachen - University of Applied Sciences (FH Aachen) offers a 3- and 4-semester Master's degree programme. Within the 3-semester Master's degree programme, students can freely choose their subjects from the "General Automotive Engineering" and "Advanced Automotive Engineering" catalogues and one module from a „General Competences“ catalogue. The 4-semester degree programme has a fixed study plan but a free choice of one subject of the "General Competences" catalogue.

Through choosing selective modules, students can specialise and deepen their knowledge in the specific focus areas "Powertrain Application" and "Vehicle simulation" as well as acquire soft skills which can be beneficial to a career. This allows an overlap-fee course of study.

Graduates receive the title of Master of Science (M.Sc.). The 4-semester dual degree programme as well as the 3-semester Master's degree programme are accredited.

© Imperia GmbH, www.imperia.info

Study Plans



Modules FH Aachen

	3-Semester Master's Degree Programmes		4-Semester Master Programme
General Automotive Engineering (GAE) Programme	Focus Powertrain Application	Focus Vehicle Simulation	Dual Degree (fixed study plan)
Advanced Automotive Engineering (AAE) Programme			
General Competences			

Free Choice ■

Curriculum

3-Semester Degree Programme

Name of Module	C/E	CR	SWS				Σ
			L	T	Lab	SU	
1st Semester (Summer Semester)							
Elective General Automotive Engineering (GAE Programme)	C	15	-	-	-	-	-
Elective Advanced Automotive Engineering (AAE Programme)	C	15	-	-	-	-	-
Total		30	-	-	-	-	-

2nd Semester (Winter Semester)							
Name of Module	C/E	CR	SWS				Σ
			L	T	Lab	SU	
Elective General Automotive Engineering (GAE Programme)	C	10	-	-	-	-	-
Elective Advanced Automotive Engineering (AAE Programme)	C	15	-	-	-	-	-
Elective General Competences Programme	C	5	-	-	-	-	-
Total		30	-	-	-	-	-

3rd Semester (Winter Semester)							
Name of Module	C/E	CR	SWS				Σ
			L	T	Lab	SU	
Master's Thesis	C	29	-	-	-	-	-
Colloquium	C	1	-	-	-	-	-
Total		30	-	-	-	-	-

The descriptions of contents of the study modules are available online.

CR: Credits C: Compulsory E: Elective SWS: Contact hours per week
L: Lecture T: Tutorial Lab: Laboratory SU: Seminar

Elective Modules

Name of Module	C/E	CR	SWS				Σ
			L	T	Lab	SU	
Summer Semester Electives General Automotive Engineering							
Advanced Mathematics	E	5	2	2	0	1	5
Advanced CAD Methods	E	5	0	0	4	0	4
Advanced Control Technology	E	5	2	1	1	0	4
Environmental Effects of Vehicle Powertrain	E	5	2	2	1	0	5

Summer Semester Electives Advanced Automotive Engineering							
Name of Module	C/E	CR	SWS				Σ
			L	T	Lab	SU	
Vehicle Acoustics	E	5	2	1	1	0	4
Advanced Automotive Electronics	E	5	2	1	1	0	4
Design of Electronic Powertrain Management Systems	E	5	2	1	1	0	4
Vehicle Engineering - FEM-Simulation & Application	E	5	1	0	3	1	4
Dynamik der Mehrkörpersysteme	E	5	2	1	1	0	4

Winter Semester Electives General Automotive Engineering							
Name of Module	C/E	CR	SWS				Σ
			L	T	Lab	SU	
Structural Dynamics	E	5	2	1	1	0	4
Advanced Measurement and Control Systems	E	5	2	1	1	0	4
Mathematical Optimisation	E	5	1	0	3	1	4

Winter Semester Electives Advanced Automotive Engineering							
Name of Module	C/E	CR	SWS				Σ
			L	T	Lab	SU	
Advanced Finite Element Methods	E	5	2	1	1	0	4
Global Automotive Homologation and Mass Production Release	E	5	3	0	0	2	5
Applied Computational Fluid Dynamics	E	5	2	0	2	0	4
Powertrain Calibration - Engine	E	5	2	1	1	0	4
Powertrain Calibration - Transmission	E	5	2	1	1	0	4

The descriptions of contents of the study modules are available online.

CR: Credits C: Compulsory E: Elective SWS: Contact hours per week
L: Lecture T: Tutorial Lab: Laboratory SU: Seminar

Curriculum

4-Semester Degree Programme

Example for the commencement of studies in the winter semester

Name of Module	C/E	CR	SWS				Σ
			L	T	Lab	SU	
General Competences							
Advanced Project Management (MS Office)	E	5	0	0	0	4	4
Entrepreneurship	E	5	0	0	0	4	4
Engineering meets Design	E	5	0	0	0	4	4
Technisches Deutsch	E	5	0	0	0	4	4
Critical Thinking and the Scientific Method	E	5	0	0	0	4	4
General Management of Automotive Suppliers	E	5	0	0	0	4	4
Other Faculty Electives	E	5	0	0	0	4	4

The descriptions of contents of the study modules are available online.

CR: Credits C: Compulsory E: Elective SWS: Contact hours per week
L: Lecture T: Tutorial Lab: Laboratory SU: Seminar

Name of Module	C/E	CR	SWS				Σ
			L	T	Lab	SU	
1st Semester (Winter Semester, FH Aachen)							
Advanced Measurement and Control Systems	C	5	1	2	1	0	4
Advanced Finite Element Methods	C	5	2	1	1	0	4
Applied Computational Fluid Dynamics	C	5	2	0	2	0	4
Global Automotive Homologation and Mass Production Release	C	5	3	0	0	2	5
Powertrain Calibration - Engine	C	5	2	1	1	0	4
Elective General Competences Programme	E	5	0	0	0	4	4
Total		30	-	-	-	-	-

2nd Semester (Summer Semester, FH Aachen)

Advanced CAD Methods	C	5	0	0	4	0	4
Advanced Control Technology	C	5	2	1	1	0	4
Environmental Effects of Vehicle Powertrain	C	5	2	2	1	0	5
Vehicle Acoustics	C	5	2	1	1	0	4
Vehicle Engineering - FEM-Simulation & Application	C	5	1	0	3	1	4
Design of Electronic Powertrain Management Systems	C	5	2	1	1	0	4
Total		30	-	-	-	-	-

The descriptions of contents of the study modules are available online.

CR: Credits C: Compulsory E: Elective SWS: Contact hours per week
L: Lecture T: Tutorial Lab: Laboratory SU: Seminar

Modules FH Aachen

Detailed module descriptions can be found at www.fh-aachen.de/en/course-of-study/international-automotive-engineering-msc

Advanced Control Technology (61901)

- > Design of Advanced Control Systems
- > Identification of Dynamic System
- > Soft-computing Methods in Control Technology
- > Numerical Simulation and Optimization of Control Systems

Advanced CAD Methods (61902)

- > Modelling of wireframe structures
- > Mathematical description of curves and surfaces
- > Modelling of advanced surfaces and shapes
- > Modelling of full-parameterized parts
- > Analyzing and evaluating of surfaces

Advanced Mathematics (61903)

- > Fourier Series and Fourier Transform
- > Curves, Moving Coordinate Systems and Surfaces
- > Analysis of Scalar and Vector Fields
- > Ordinary and Partial Differential Equations: Laplace Transform and Numerical Methods
- > Data Analysis: Error Propagation, Correlation and Regression

Vehicle Acoustics (61921)

- > Fundamentals: sound, sound-field, parameters and definitions
- > Perception of humans: audibility of airborne noise, perception of structure-borne noise
- > Measurement equipment: sensors, devices and chambers, analysis methods
- > Legislation: pass-by noise test, source analysis, test vehicles

- > Sources, transfer and radiation, reduction measures
- > Psychoacoustics: parameters, measuring and analysis techniques, sound engineering

Vehicle Engineering - FEM-Simulation and Application (61932)

- > Functional Attributes in FEM-Simulation and real world testing for Automotive Body Structures
- > Design and Optimization for Crash-worthiness, NVH (Noise/Vibration/Harshness) and Durability
- > Planning and Executing Structural Test and performing FEM-Simulation with Hyperworks
- > Understanding the Meaning of Simulation and Testing in the Development of vehicles

Advanced Automotive Electronics (61933)

- > Automotive Sensors and Actuators
- > Driver and Interface Circuits incl. A/D-Conversion, EMC
- > Processor Systems for Electronic Control Units (ECUs)
- > Bus-Systems for different demands
- > Advanced Driver Assistance Systems (ADAS)

Design of Electronic Powertrain Management Systems (61934)

- > Software Structure of Engine Management Systems
- > Interaction of Power Train Control and different vehicle control units

- > Design of new or redesign of existing functionalities in engine management systems
- > Functional safety
- > Vehicle Control Unit of Hybrid Vehicles

Environmental Effects of Vehicle Powertrain (61935)

- > Fundamentals of gasoline and diesel combustion
- > Pollutants formation and kinetics of chemical reactions
- > Legal requirements exhaust emissions and fuel consumption
- > Combustion potential for CO₂ reduction
- > Exhaust after-treatment of combustion engines

General Management of Automotive Suppliers (61936)

- > Turn-around management
- > Due diligence, merger and acquisitions
- > Key account management
- > Management and leadership
- > Intercultural aspects

Structural Dynamics (62901)

- > Creation of damping and mass matrices within the Finite Element Method (FEM)
- > Modal analysis using FEM and experiment as a basis for structural analysis
- > Calculation of the forced vibrations proportional and non-proportionally damped linear vibration systems
- > Explanation of structural non-linearities and extension to nonlinear FEM calculations

Advanced Finite Element Methods (62902)

- > Derivation of a Finite Element Formulation for Static Problems
- > Nonlinear Material Behaviour (Creep and Plasticity)
- > Treatment of Contact Problems
- > Basic Introduction into Stability Problems
- > Heat Transfer and the Corresponding Thermal Stresses

Advanced Measurement and Control Systems (62905)

- > Using and programming computer based measurement chains
- > Applying the graphical computer language LabVIEW
- > Conducting experiments e.g, to calculate the achievable accuracy of the hardware and the sensors

Mathematical Optimization (62907)

- > Calculation of the extreme values of scalar functions for varying constellations of domains and functional dependencies
- > Nonlinear optimization (for nonlinear functions and/or constraints). Methods: differential calculus or iterative search methods
- > Linear optimization with the simplex algorithm
- > Utilization of computing power for solving optimization problems of large-scale calculation expenditure

Modules Royal Melbourne Institute of Technology

Applied Computational Fluid Dynamics (62912)

- > Derivation and discretization of the conservation equations for fluid dynamics
- > Solution methods for discretized partial differential equations
- > Grid generation and turbulence modelling
- > Examination of CFD results
- > Guided CFD tutorials and final CFD project work with presentations

Global Automotive Homologation and Mass Production Release (62921)

- > Vehicle homologation process
- > Vehicle type approval
- > Product liability
- > Homologation documentation
- > Main items of existing and in force coming European rulemaking with respect to safety and powertrain items

Powertrain Calibration – Engine (62932)

- > Calibration of Engine Management Systems
- > Vehicle calibration
- > Application of Rapid SW- Prototyping Tools
- > On Board Diagnostics
- > Testing of control functions in engine management systems

Powertrain Calibration - Transmission (62933)

- > Mathematical Description and Modelling of Components and Transmission
- > Transmission Control Unit (TCU) Development
- > MIL, SIL, HIL, RCP Methods in Transmission Development
- > Transmission Application and Calibration Processes
- > Model Based Transmission Optimization

Technisches Deutsch (61943)

- > Obtain a repertoire of complex language skills that enable them to read and understand German texts in a technical environment
- > Exchange views on technical matters as well as conduct a discussion
- > Carry out business communications relevant to engineers in writing and orally
- > Present correlations in a presentation and then moderate a discussion round
- > Obtain language skills from the technical and scientific environment (automobile construction, pollution, energy technology, technology and progress etc.

Dynamics of Multi-body Systems (83304)

- > Mathematical Modeling of Multi-body Systems (MBS)
- > Impact of Excitation on Motion and Force Results
- > MBS with Elastic Bodies
- > Project Based Learning of MBS-Programs

Automotive Materials (AUTO1028)

- > Fundamentals for advanced manufacturing of metallic materials for Automotive applications – Phase diagrams, phase transformations and strengthening mechanisms
- > Engineering polymers: Property/processing relationship; temperature, time dependency of physical properties
- > Composite materials
- > Materials selection and databases
- > Corrosion prevention: coating, materials, processing, and testing/evaluation issues
- > Recycling and design for recycling; end of life issues.

Advanced Vehicle Dynamics (AUTO1927)

- > This course will teach how engineers analyze vehicle dynamics in performance, handling and ride modes. Mastery of these techniques will enable to better predict dynamic behaviour of a vehicle, and thus reconcile competing demands inherent in the design of vehicles.

Management of Automotive Design and Development (AUTO1024)

- > Product life-cycle management
- > Global design and communication (e-design)
- > Automobile system design
- > Safety regulations and design for safety
- > Car body design (structural and aerodynamic)
- > Design integration and optimization

Research Methods in Engineering (OENG1120)

- > Development of skills to undertake a comprehensive literature review and research project plans.
- > This course introduces the general principles, methodologies and practices of data collection (both qualitative and quantitative) and analysis in qualitative research, analytics, content analysis, design aspects and research ethics.
- > Data analysis tools will be covered as well as understanding the validity and reliability of data.
- > Development of skills in communicating scientific findings including writing academic publications and presentations.

Master's Research Project Part 1 & Part 2 (OENG1089/1090)

- > Designed to consolidate and expand knowledge through an in-depth experimental and analytical study of technical and engineering management application.
- > Work on research projects individually or in small groups
- > In this courses it will be required to plan, manage and complete a research project, conduct a critical analysis of relevant literature, undertake research work to a high level standard of professional engineers and researchers, evaluate and report the research findings.
- > It is a work-integrated project done either in conjunction with industry or in a simulated engineering work environment.

FH Aachen – University of Applied Science and Faculty

The FH Aachen University of Applied Sciences, with its locations in Aachen and Jülich, is one of the biggest and most important universities of applied sciences in Germany. The competences are mainly in the future areas of energy, mobility, and life sciences. The latest research results are directly incorporated into teaching. With a variety of laboratories, wind tunnels, a powertrain laboratory and an astronautic laboratory, the FH Aachen is able to teach with a very high practical orientation. A further decisive step is offering international degree programmes. Here, the language of instruction is English. In this context, the cooperation with numerous and significant foreign partner universities of the FH Aachen is particularly attractive.

© FH Aachen, Thilo Vogel

RMIT – University

Royal Melbourne Institute of Technology (RMIT) is a global university recognised for leadership and innovation in technology, design and enterprise. As a QS 5-Star rated institution, RMIT is ranked as one of the world's leading universities with a strong research record and state-of-the-art facilities and infrastructure. Whether you complete your degree in Australia or on exchange anywhere in the world, RMIT aim to provide students with the best experience possible along with the skills to succeed in their chosen career.

RMIT is one of Australia's top 5 universities for students to go on an international exchange as part of their studies. With campuses in Melbourne and Vietnam as well as access to over 150-plus partner institutions, studying at RMIT puts the world at your fingertips. When you study at RMIT in Melbourne you are part of a vibrant and welcoming university. RMIT has over 100 student clubs, societies and collectives to choose from which are a great way to meet new friends, develop new skills and connect with people who share your interests. You can even start your own club. Safe, multicultural, and voted the world's most liveable city seven years in a row (2017 Economist Intelligence Unit Global Livability Ranking) - Melbourne is a great place to live and study.

RMIT's City campus is in the heart of Melbourne's central business district, close to public transport, accommodation and surrounded by a vibrant food and coffee culture. You can explore Melbourne's beautifully maintained public spaces, a network of laneways, iconic galleries and museums, as well as a lively year-round calendar of sports, music, fashion and cultural events.

Melbourne is a stimulating and exciting city to be in.



FAQ

When can I [apply for the degree programme](#) and how?

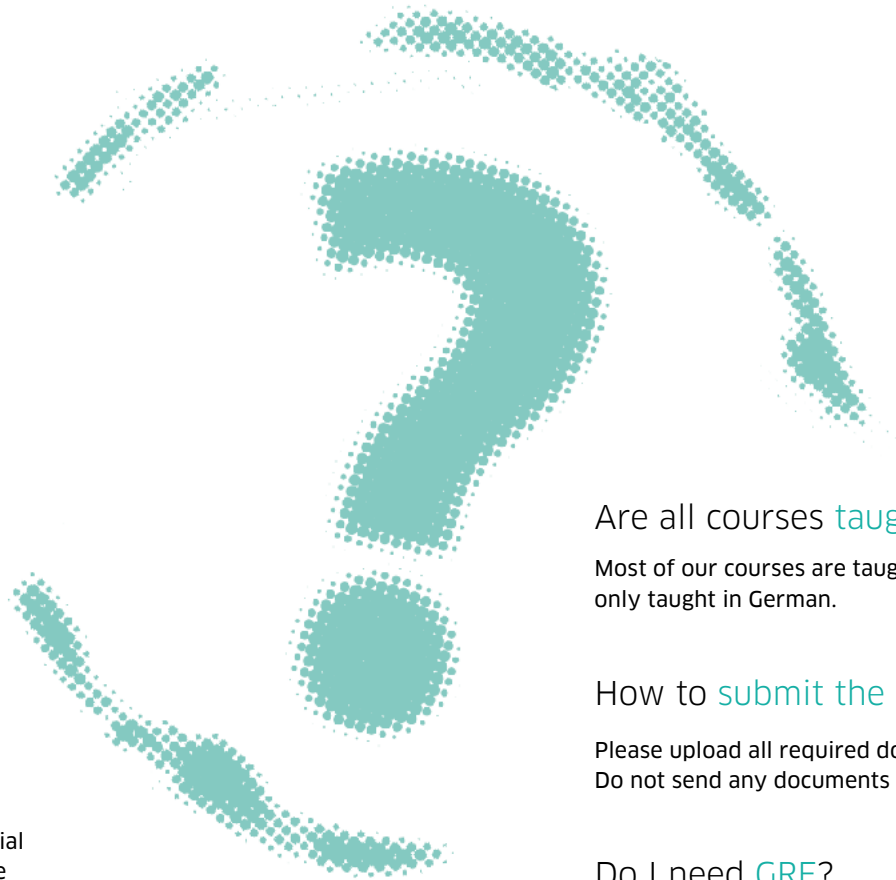
Please apply via our online application portal. It will be opened a few weeks before the deadline for international applicants, 4 weeks at the latest.

Do I have to submit an [English language certificate](#)?

In case you are a native speaker or you are able to provide an official statement from your university concerning the fact that your entire undergraduate studies have been taught in English, you do not have to submit TOEFL/IELTS/FCE.

Is it possible to attend a [German language course](#) at the same time as the Master's degree programme and submit the certificate later?

It is only possible for the B1-course. Without the required language certificates at the time of enrolment, your admission will become invalid. There is no possibility to get conditional approval. We do not offer special language courses as preparation for the B1 examination.



Are all courses [taught in English](#)?

Most of our courses are taught in English, but we do offer 1 course only taught in German.

How to [submit the documents](#)?

Please upload all required documents during your online application. Do not send any documents postally or via ETS.

Do I need [GRE](#)?

If you have completed your undergraduate studies at a university that is not a member of the Bologna Process, you have to provide GRE. You will find all Bologna participants on the following page: www.ehea.info/pid34249/members.html
India is not a member of the Bologna Process.

Organisation

Any information about

- > duration and start of the degree programme
- > course fee
- > modules' description and list of lectures
- > application documents and deadlines

and any further information will be published on the website.

Please use the following web address to get further information.

www.fh-aachen.de/en/course-of-study/international-automotive-engineering-msc

Addresses

Faculty of Aerospace Engineering

Hohenstaufenallee 6
52064 Aachen
P +49.241.6009 52410
F +49.241.6009 52680
www.luftraum.fh-aachen.de

Dean

Prof. Dr.-Ing. Peter Dahmann
P +49.241.6009 52400
dekan.fb6@fh-aachen.de

Head of the Degree Programme

Prof. Dr.-Ing. Thomas Esch
P +49.241.6009 52369
esch@fh-aachen.de

Degree Programme Coordinator/Advisor

Dipl.-Päd. Corinna Hornig-Flöck
P +49.241.6009 52428
floeck@fh-aachen.de

ECTS Co-ordinator of the Faculty of Aerospace Engineering

Prof. Dr.-Ing. Marc Havermann
P +49.241.6009 52427
havermann@fh-aachen.de

Student Service Center (SSC)

Bayernallee 11 | 52066 Aachen
T +49. 241. 6009 51616
ssc@fh-aachen.de

Registrar's Office

Bayernallee 11
52066 Aachen
to be contacted via the SSC:
P +49.241.6009 51616
www.studierendensekretariat.fh-aachen.de

Department of International Affairs

Bayernallee 11
52066 Aachen
P +49.241.6009 51043/51019/51018
www.aaa.fh-aachen.de



© FH Aachen, Thilo Vogel

Imprint

Publisher | Rector of the FH Aachen
Bayernallee 11, 52066 Aachen, www.fh-aachen.de
Information | studienberatung@fh-aachen.de

December 2019

Editor | Faculty of Aerospace Engineering

Design Concept, Image Selection | Ina Weiß, Jennifer Loettgen, Bert Peters, Ole Gehling | Seminar
Prof. Ralf Weißmantel, Faculty of Design
Production | Susanne Hellebrand, Department of Public Relations and Marketing
Image Editing | Dipl.-Ing. Philipp Hackl, M.A.
Picture Credit Cover | BMW AG



HAWtech
HochschulAllianz für
Angewandte Wissenschaften

ZERTIFIKAT 2014



Vielfalt
gestalten
in NRW

Gemeinsames Diversity-Audit des Stifterverbandes
und des Ministeriums für Innovation, Wissenschaft
und Forschung des Landes Nordrhein-Westfalen