

What do Graduates Think?

Adam from Poland:

"This Master programme opened the door to my future career in the IT industry. The commitment of all professors and lots of practical and theoretical exercises were the **key to my success**. The practical part of the study programme I spent at Siemens Medical Solutions where I wrote my Master's Thesis on an incredibly interesting topic and... well... the company did not let me go! :-)"

Saurabh from India:

"The best part of the course is the internship which gives real hands-on experience on working in German companies and developing enterprise wide applications. This one year internship **carves a professional out of a student.**"

Noura from Syria:

"The Software Engineering Master programme offers interesting subjects taught by experts in their own fields. Having the internship as part of the Master programme was very useful as it helped me build practical experience at a major company (Daimler AG). My supervisor provided great personal and professional support during my study and internship. My experience in Hof University gave me the opportunity to **receive a scholarship and start my PhD studies.**"

Andrés from Colombia:

"The Master programme gives you knowledge in the areas needed for software development and shows you innovative ideas for software engineering. All this is supported and encouraged by a really **nice infrastructure and excellent professors**. The German "know-how" is very interesting to learn and the Master provides you with both the theoretical and the practical part of it."

About us

Hof University is a state-funded German university and located in the charming middle-sized town of Hof, right between Munich, Berlin and Prague. Our campus was established in 1994 and is equipped with state-of-the-art facilities. Here you get first-class, **hands-on education at affordable rates.**

We pay special attention to the practice orientation of all courses and assignments. Our professors have profound experience both in the industry and in academia. With a very comfortable student-lecturer ratio, students get **intensive personal support.**



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Education Made in Germany

Accredited by
ACQUIN

Master of Engineering (M.Eng.)

Software Engineering for Industrial Applications

Professional Perspectives



This Master programme is unique in its precise tailoring to the needs of the industry. The course includes one year of full-time studies plus one year of integrated practice and is **taught completely in English.**

Experts possessing a good understanding of distributed systems in industrial environments combined with extensive experience are still rare on the market. Since this Master programme provides the theoretical background knowledge together with **significant practical experience**, it opens the perspective of becoming a highly demanded and well-paid expert.

Graduates do not only possess **cutting-edge technological competence** but also excellent management and engineering skills – perfect prerequisites for a high-flying career in software engineering!

Up to now, we have a **100 % placement of our graduates** in very renowned companies in Germany and abroad. All our graduates have immediately found well paid positions with companies such as Siemens, Bosch, IBM and ND SatCom and also with smaller local enterprises.

This Master programme prepares you for complex management and engineering tasks in the domain of software development for industrial applications. In the field of industrial applications, information technology is increasingly characterised by **integrated solutions** interconnecting systems on various levels. Its applications range from low level control of production processes to high level management and logistic tasks of multiple independent companies.

New methods and tools have been developed which are based on **component-oriented software development** together with role based programming and design patterns. New methods are also available for the integration of heterogeneous systems. These methods are based on generic application protocols (e.g. Web Services) which can be customised for a given application.

Modern information systems need to provide **fast access and analysis capabilities** for the stored data. In addition to traditional technologies based on relational and object-orientated databases, new methods like OLAP (Online Analytical Processing) and vector databases as well as new indexing technologies are increasingly used.

On the application side, such a system has to support the business processes of the involved organisations. Among other functions, a system needs to support at least the logistic part of these processes. This includes the **management of resources** and the planning and monitoring of activities.

In this programme, students **get acquainted with these state-of-the-art techniques** in the design of enterprise-wide applications. Main trends in software engineering such as object orientation and respective modelling tools and programming environments are a major focus of this practice-oriented Master.

The Master programme comprises four semesters. The first two semesters provide theoretical knowledge in the domains Management, Software Engineering and Enterprise Resource Planning Systems. In addition, seminars on recent developments in Information Systems and Software Engineering are offered.

Students spend the third and fourth semester doing an internship in a company in order to gain more practical experience. This period is also dedicated to training assignments in application-oriented research and development projects.

After successful completion of all assignments, graduates are awarded a Master of Engineering (M.Eng.).

Course Plan			Credits
Theory	Semester 1	Full-time studies at Hof University (Mandatory Subjects plus Electives)	30
	Semester 2	Full-time studies at Hof University (Mandatory Subjects plus Electives)	30
Practice	Semester 3	Supervised Internship in Germany or abroad and Training Assignments	30
	Semester 4	Supervised Internship and Training Assignments; Master Thesis	30
Total			120

Subject	Courses	Credits
Mandatory Subjects	Language Requirement (German or English)	6
	Logistics and Supply Chain Management	6
	Component Oriented Software Development	6
	Computer Aided Software Engineering	6
	ERP System Architectures	6
	Recent Trends in Information Systems and Software Engineering	6
Electives *	Elective Modules, e.g.	24
	Data Mining	
	Efficient Storage of Non-Relational Data Types	
	Analytical Information Systems	
	Control of Distributed Manufacturing Systems	
	Generic Application Protocols	
	Semantic Web	
	Design Patterns	
	Corporate Leadership	
	Accounting / Controlling	
	Automatic Planning Methods	
	Project Accounting and Management	
	Information Systems	
	Introduction to Management and Organisation	
Integrated ERP Case Studies		
Training Assignments	Project „Software Specification and Design“	14
	Seminar „Software Specification and Design“	1
	Project „Software Validation“	14
	Seminar „Software Validation“	1
	Master Thesis	30

* Students choose courses worth 24 credit points from this list; normally, each subject has 3 or 6 credits.

Admission Requirements

Applicants must hold a Bachelor degree in information technology from an accredited institution comprising at least three years of theoretical studies, with emphasis on software engineering, programming, database systems and computer networks. Additional professional experience in the software industry is strongly recommended. Applicants need to be proficient in English which is the language of instruction of all courses. Knowledge of German is not required.

Application and Dates

Applications have to be submitted online and by mail before the following dates:

- May 15th for the winter semester (starting October 1st)
- November 30th for the summer semester (starting March 15th)

Our online application is available at

<http://master-swe.hof-university.de>

Tuition Fees / Costs of Living

The tuition fees are 2500 Euro per semester.

Hof University supports the application of students for industrial grants during the Master programme. Accommodation and living expenses in Hof are comparably modest and can be estimated at around 600 Euro per month, including rent, food and health insurance.

For scholarships, please check www.funding-guide.de.