Deutscher Akademischer Austauschdienst
German Academic Exchange Service

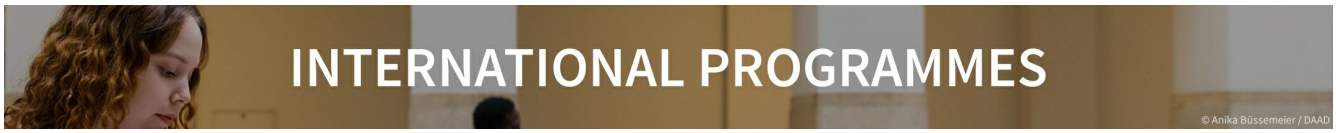

Table of Contents

Master's degree

Systems Engineering

Saarland University • Saarbrücken

Overview

Degree	Master of Science
Teaching language	• German • English
Languages	Courses are held in English or German. Depending on the course selection (specialisation), up to 100% English is possible. Participants can choose to write the Master's thesis in either language.
Full-time / part-time	• full-time • part-time (study alongside work)
Mode of study	Fully on-site with voluntary online elements
Programme duration	4 semesters
Beginning	Winter and summer semester
Application deadline	• 1 March for the following summer semester • 1 September for the following winter semester
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	With the factories of the future set to increase their use of intelligently networked machines, there is growing demand for experts with the technical and organisational skills to supervise and manage all of the processes involved, from the initial product idea to end-of-life product recycling. These experts need to understand the fundamentals of mechanical engineering, informatics and electrical engineering in equal measure, and they need to be able to speak the "languages" of these different disciplines. The Master's degree programme in Systems Engineering at Saarland University is an innovation-driven engineering programme that is firmly based on the underlying physical foundations of the subject. Graduates from the programme have the skills to understand and leverage the software and technology used in controlling complex systems and processes. Over the course of the programme, students can specialise in areas that reflect their abilities or particular fields of interest. The offered areas of specialisation are as follows: production systems,

	systems design, sensor-actuator systems, information and communication systems, sustainable engineering, and integrated systems. Teaching modules cover subject matter in the areas of informatics, materials science and materials engineering, and economics. Lab courses, practical assignments and seminars are used to make sure that students are actively immersed in research and development projects early on. Students can complete the Master's thesis project in one of the research groups in the department or at one of the research institutes or industrial partners that the programme cooperates with, either at home or abroad. Graduates from the programme are highly sought after in many areas of industry, such as automotive and mechanical engineering, microelectronics and automation or medical and communications technology. Alternatively, graduates may choose to continue their academic research careers by working towards a doctoral degree in the engineering sciences.

Course Details

Course organisation	The MSc programme in Systems Engineering requires students to accumulate a total of 120 ECTS credits (120 CP): • Core modules in chosen area of specialisation: min. 20 CP • Supplementary modules in chosen area of specialisation: min. 20 CP • Organisation and management: max. 12 CP • Elective modules: max. 26 CP • Seminars and project seminars: min. 3 CP, max. 12 CP • Other university courses (e.g. languages, soft skills, tutoring): max. 5 CP • Industrial placement / internship: 9 CP • Master's thesis seminar: 12 CP • Master's thesis: 30 CP
A Diploma supplement will be issued	Yes
International elements	• Projects with partners in Germany and abroad
Description of other international elements	Professors cooperate with many international partners via the "University of the greater Region UGR" and the "Transform4Europe T4E" network as well as through personal research collaborations. Topics for Master's theses, in particular, are often offered in these contexts.
Diverse intercultural background of students	Strong international profile: twenty percent of the student body are international students, a large number of overseas scholars and researchers, over 120 nationalities represented on campus.
Integrated internships	The programme contains a compulsory internship within the industry. This can be done with international companies or local companies that work internationally.
Course-specific, integrated German language courses	No
Course-specific, integrated English language courses	No

Costs / Funding

Tuition fees per semester in EUR	None
Semester contribution	Payment to Studierendenwerk Saarland (Saarland Student Services): 121.20 EUR Personal accident, theft and public liability insurance: 1.30 EUR Payment to the General Student Committee (AStA): 13 EUR Administrative charge: 50 EUR Semester travel ticket: 133 EUR **Total: 318.50 EUR**
Costs of living	Students in Saarbrücken benefit from the moderate living costs.
Funding opportunities within the university	Yes
Description of the above-mentioned funding opportunities within the university	ERASMUS+

Requirements / Registration

Academic admission requirements	Students seeking admission to the MSc programme must:
	• have a Bachelor's degree or equivalent qualification from a German or foreign university in systems engineering or a related field (specifically mechanical engineering, electrical engineering, computer science or informatics, microsystems engineering or mechatronics)
	• demonstrate adequate language proficiency (at least level B2 of the Common European Framework or equivalent) in German and/or English, depending on the area of specialisation chosen
	• demonstrate academic aptitude Students can establish their suitability for the programme by:
	  ◦ having achieved sufficient merit in their previous academic track record, demonstrated by an overall grade in their Bachelor's degree of at least "good" (German grading scale: 2.5),
	  ◦ presenting satisfactory academic references that give appropriate consideration to the overall grade previously achieved,
	  ◦ the results of an oral interview conducted by two examiners from the department of mechatronics, appointed by the examination board

Language requirements	Adequate language proficiency (at least level B2 of the Common European Framework or equivalent) in German and/or English, depending on the area of specialisation chosen. The programme can be completely studied in English, with a limited set of optional courses.
Application deadline	• 1 March for the following summer semester • 1 September for the following winter semester
Submit application to	Online via https://oas.cs.uni-saarland.de/index.php?authorsInstructions=1

Services

Possibility of finding part-time employment	Many research groups offer student assistant positions to gain additional practical experience during the regular course programme. Weekly hours are agreed between the student and research group. Student assistants can work up to 16 hours per week.
Support for international students and doctoral candidates	• Buddy programme • Help with finding accommodation • Support with registration procedures • Visa matters

Contact

Saarland University
Faculty of Natural Sciences and Technology

66123 Saarbrücken

studium-se@uni-saarland.de
Course website: https://www.uni-saarland.de/en/study/programmes/master/systems-engineering.html

Last update 07.01.2025 07:01:44

International Programmes in Germany - Database

www.daad.de/international-programmes
www.daad.de/sommerkurse

Editor
DAAD - Deutscher Akademischer Austauschdienst e.V.
German Academic Exchange Service
Section K23 – Information on Studying in Germany
Kennedyallee 50
D-53175 Bonn
www.daad.de

GATE-Germany
Consortium for International Higher Education Marketing
www.gate-germany.de

The publication is funded by the German Federal Ministry of Education and Research and by contributions of the participating German institutions of higher education.