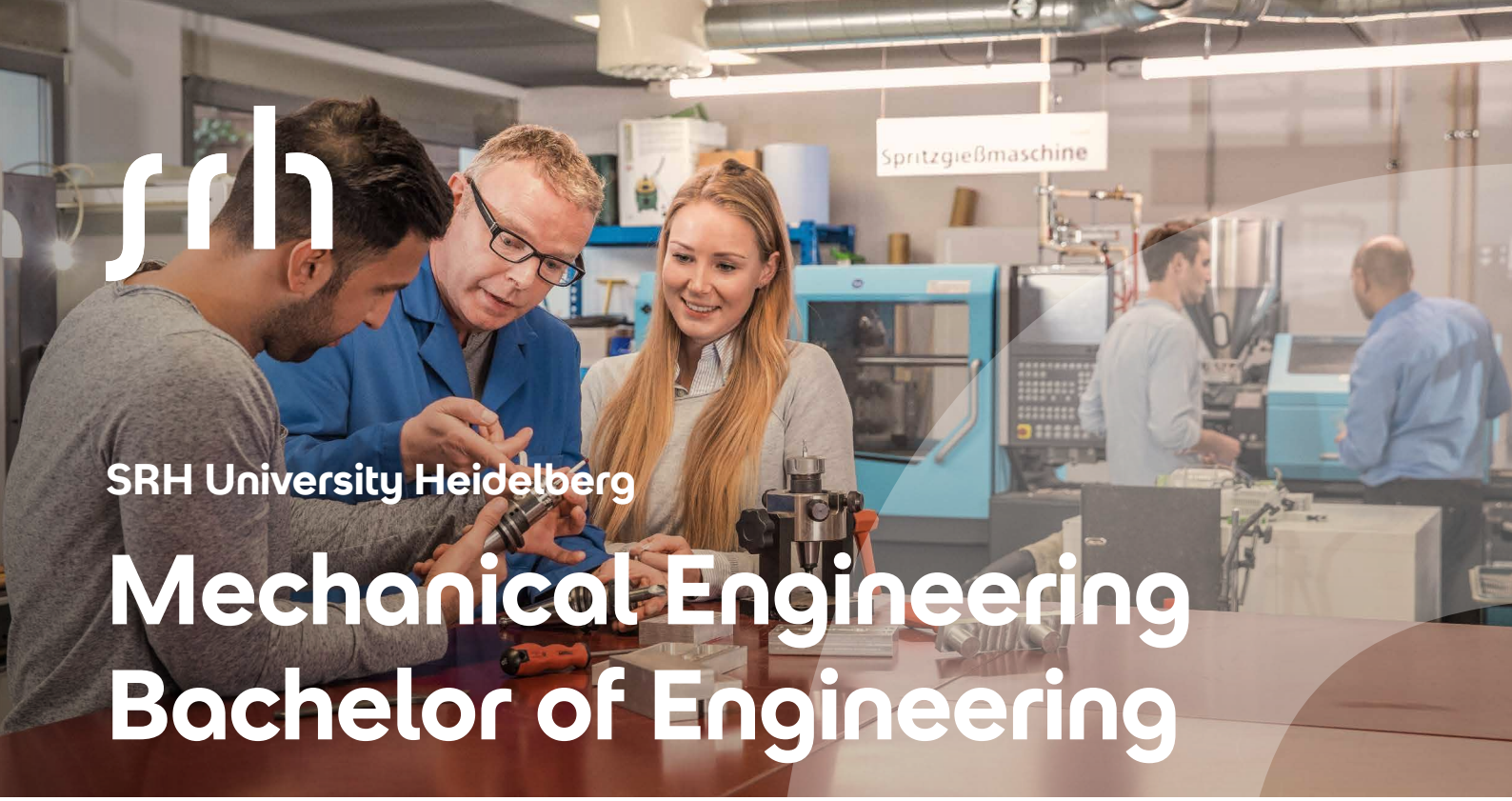


SRH University Heidelberg

Mechanical Engineering Bachelor of Engineering



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Your motivation

Do you see technology as a way to solve problems? Are you enthusiastic about machines and technical processes and would you like to learn more about how they work or how they can be improved? Then study mechanical engineering!
At the beginning there is the idea. Lots of people have ideas. Mechanical engineers can also translate this idea into functioning machines and systems!

Everyone knows and uses machines – whether tiny (e.g. remote-controlled model cars) or large (e.g. robots), for transportation in private (e.g. automobiles) or in industrial environments (e.g. gas turbines). Machines are an inseparable part of our economy and our lives. These machines usually consist of many individual components that interact with each other and function in a planned manner. Mechanical engineers ensure that this is the case.

Do you have ideas for your own machine or product and would like to learn how to turn this into a technically functioning solution? Then become part of this globally respected business profile and study mechanical engineering.

Your prospects

Mechanical engineers are worldwide demanded specialists.

Whether in development, design, production or consulting: mechanical engineers are wanted. By studying mechanical engineering, you are doing the first step for your own secure and exciting professional career.

You can later work in the following professional fields, for example:

Your potential fields of work include:

- Mechanical and plant engineering
- Automotive industry
- Steel production and processing
- Chemical industry
- Medical technology
- Energy industry
- Aerospace industry
- Engineering and construction design firms
- Consumer goods industry
- … and many more

Course content and skills

You will learn how machines, engines and technical processes are build up and why they work as predicted.

In order to be able to describe technical issues correctly, you first need the basics. These basics consist of basic science and engineering subjects (physics, mathematics, technical mechanics, electrical engineering, thermodynamics …) with which you begin your studies. Building on these basics, you can describe initial problems and develop and construct products as a solution approach (technical construction, CAD, automation, materials sciences, manufacturing technology, programming, basics of quality management, basics of mobile propulsion, etc.). You will then learn to look at technical issues from new perspectives (innovation management), compare them with existing solutions (patent law), and develop your own approaches.

At a glance

Degree

Bachelor of Engineering (B.Eng.)

Credit points

210 ECTS

Start of academic programme

Winter semester

Duration of study

7 semesters

Tuition fees

- € 690 per month
- One-time enrolment fee of € 750
- One-time enrolment fee of € 1,000 for applicants from Non-EEA countries without permanent residence permit

State recognition

Accredited and state-recognised

Admission requirements

- A general higher education entrance qualification (Abitur), a subject-restricted higher education entrance qualification (fachgebundene Hochschulreife) or an entrance qualification for studies at universities of applied sciences (Fachhochschulreife)
- Alternatively: at least two years of relevant vocational training and a minimum of three years' professional experience, plus the aptitude test
- Or: a master craftsman's diploma (Meisterbrief) or a technician qualification (Technikerabschluss)
- Successful participation in the selection process

A highlight of your studies is certainly the “Engineering Design Project” – in which you work as a team to develop an innovative, technically working product that is competitive on the market.

Then it is time to apply your learned skills for the first time under industrial circumstances – you will start with your industrial internship.

You will then deepen your knowledge and skills in subjects such as heat transfer and fluid mechanics and learn to calculate and model complex systems (finite elements, fluid dynamics, CFD, power plant technology, ...).

Apply now!

Scan the QR code

Your study programme.

Instead of a mixture of a lot of parallel subjects, you are focussing on a maximum of two subjects in parallel within a 5-week block. Each block ends with often one overall examination that was developed based on our learned competence and can therefore be different than just an written exam. Through this sustainable process you will achieve optimal learning results.

Semester					
01	Mathematics and natural sciences I	Mathematics and natural sciences II	Fundamentals of engineering sciences I	Fundamentals of engineering sciences II	
Examination & Credits	LT, Präs & Ber I 8 ECTS	Kls & TLP I 8 ECTS	Kls I 8 ECTS	Kls I 8 ECTS	
02	Fundamentals of engineering sciences III	Product Development: Innovation und Economics	Product Development: Construction	Product Development: Automation Engineering	
Examination & Credits	StA I 8 ECTS	StA I 8 ECTS	Kls & TLP I 8 ECTS	Kls I 8 ECTS	
03	Product Design: Manufacturing Management and Project Management	Product Design: Technical Thermodynamics	Automotive and propulsion technology	Machine elements and dynamics	
Examination & Credits	PA I 8 ECTS	Kls & Lab I 8 ECTS	Kls & PA I 8 ECTS	Kls & PA I 8 ECTS	
04	Engineering Design Project	Internship			
Examination & Credits	PA I 8 ECTS	PB I 27 ECTS			
05	Innovation and Product development	Research and development: Advanced Mathematics	Research and development: Introduction to Fluid mechanics	Research and development: Heat transfer	
Examination & Credits	PA I 8 ECTS	TPL I 8 ECTS	Kls I 8 ECTS	Kls I 8 ECTS	
06	Research and development: Applied Thermo-Fluid Science	Research and development: Numerical analysis	♥ Compulsory Electives I–IV		
Examination & Credits	PA I 8 ECTS	Kls & PA I 8 ECTS	DIV I 16 ECTS		
07	Bachelor Thesis and Colloquium				
Examination & Credits	Th & Ko I 15 ECTS				

Explanation

The university reserves the right to make changes.

LT: Learning Diary
Präs: Presentation
Ber: Report
Kls: Written Exam
TLP: Technical Problem-Solving
StA: Student Research Project
PA: Project Work
Lab: Laboratory
PB: Internship Report
DIV: Various Types of Exams
Th: Thesis
Ko: Colloquium

♥ Electives: Please refer to the next page for module content within your elective.

Compulsory elective modules Sharpen your profile.

Compulsory electives

Compulsory electives	ECTS
Compulsory Elective I	4
Compulsory Elective II	4
Compulsory Elective III	4
Compulsory Elective IV	4

At the end of your studies, you can choose four elective subjects from a wide range and deepen and sharpen your skills. The range of elective subjects' changes depending on the actual topic. (Examples from recent years: medical technology, additive manufacturing, battery technology, environmental technology, renewable energy technology, introduction of IOT, big data, key company figures, foreign trade, production logistics, and many more ...).