

# study facts



## Optimise your academic success

A mix of small groups, individual support and manifold learning formats offers ideal study conditions and prepares you most effectively for your career.



## Professional experience as part of your studies

A practical semester and projects with real clients help you to establish contacts in the professional world at an early stage.



## Benefit from the practical experience of our teaching staff

They come from the professional world, impart up-to-date knowledge and prepare you for the demands of the industry.



## State University

Our study programmes are accredited and therefore quality-assured. As a state university we do not charge tuition fees.



## Outstanding Place of Learning

According to UNESCO, h\_da is an 'Outstanding Place of Learning for Sustainable Development'.

## Study Programme Polymer Engineering

Faculty of Mechanical and Plastics Engineering  
Darmstadt Institute of Plastics Processing – ikd  
Haardtring 100, Building A 14  
64295 Darmstadt  
Phone +49 6151 533-68523  
sekretariat.fbmk@h-da.de

## Dual Study Programme

Polymer Engineering can also be pursued as a dual study programme:  
[h-da.de/dual](http://h-da.de/dual)



## Study Programme+

The study programme is also offered as Polymer Engineering+ (8 semesters), allowing more time, individual skills training and personal support.  
[fbmk.h-da.de/polymer-engineering-bachelor/plus](http://fbmk.h-da.de/polymer-engineering-bachelor/plus)

## Counselling & Advice

The first point of contact for most questions about studying is the Student Service Center, or SSC for short. In addition to study counselling and information on the details of the application procedure, the SSC also offers advice on the organisation or financing of your studies.

## Student Service Center

Schöfferstraße 3, Building C 23  
64295 Darmstadt  
Phone +49 6151 533-5555  
[studienberatung@h-da.de](mailto:studienberatung@h-da.de)  
[h-da.de/studienberatung](http://h-da.de/studienberatung)

## BAföG Student Grant & Student Accommodation

[studierendenwerkdarmstadt.de](http://studierendenwerkdarmstadt.de)

## Study Abroad

[international.h-da.de](http://international.h-da.de)

## All information about the study programme:

[fbmk.h-da.de/polymer-engineering-bachelor](http://fbmk.h-da.de/polymer-engineering-bachelor)



**h\_da**  
hochschule  
darmstadt



also offered  
as a dual  
programme

# Polymer Engineering

Bachelor of Engineering

## More on studying at h\_da:

[h-da.de/praktischunschlagbar](http://h-da.de/praktischunschlagbar)



member of  
**eut+**  
EUROPEAN UNIVERSITY  
OF TECHNOLOGY

Course Outline

Plastics are an integral part of our everyday lives: they are found in smartphones, bicycles and shoes, and often fulfil several technical functions at once. Yet, how do plastics differ? How are products developed and manufactured from them? What about sustainability and recycling? And what machines and digital tools are needed?

In the six-semester bachelor's programme in Polymer Engineering, students acquire comprehensive basic engineering knowledge in this versatile field. The programme is oriented towards mechanical engineering and process engineering. The first year of study is closely interlinked with the Mechanical Engineering and Mechatronics study programmes, so that a change is possible. In projects, students learn to design processes and tools in a practical manner from the very first semester. Many core elective modules, such as 3D Printing, Recycling and Biopolymers, allow students to choose their own specialisations. In addition, students improve their teamwork and language skills. The EUT+ university alliance and established partnerships outside Europe offer a wide range of study abroad opportunities.

We have had close ties with the Faculty of Mechanical and Plastics Engineering at h\_da for many years. As several of our employees – including myself – are graduates of the faculty, we enjoy working with the university. Graduates and students working on their bachelor's and master's theses are always welcome at our company."

Julian Kremer  
Dipl.-Ing, Managing Director,  
Kremer-Kautschuk-Kunststoff GmbH Co. KG



Entry Requirements

- no admission restrictions (no NC)
- start of studies in the winter or summer semester

The entry requirements include qualifications, such as:

- general higher education entrance qualification (allgemeine Hochschulreife)
- subject-specific higher education entrance qualification valid in Hesse (fachgebundene Hochschulreife)
- technical college entrance qualification valid in Hesse (Fachhochschulreife)
- vocational qualifications: [h-da.de/studium-ohne-abi](https://h-da.de/studium-ohne-abi)

Applications with a foreign certificate need to be made via [uni-assist.de/en](https://uni-assist.de/en). The 8-week pre-study internship may be completed either before or while studying.

Career Prospects

- product development, design, manufacturing, sales
- jobs at a technical level, in management positions or as a freelancer
- jobs in global companies or regional SMEs

Industries (selection):

- plastics manufacturing, processing and recycling
- machine and tool construction
- construction and building components
- aerospace technology, automotive industry
- medical technology, electrical and electronics industry
- sports, leisure and consumer goods

Polymer Engineering Bachelor of Engineering					Master				
1 <sup>st</sup> semester	2 <sup>nd</sup> semester	3 <sup>rd</sup> semester	4 <sup>th</sup> semester	5 <sup>th</sup> semester	6 <sup>th</sup> semester	7 <sup>th</sup> semester	8 <sup>th</sup> semester	9 <sup>th</sup> semester	10 <sup>th</sup> semester
Development of Sustainable Systems, 10 CP	Mathematics, 15 CP	Polymer Chemistry, 5 CP	Electrical Engineering and Electric Drives, 5 CP	Sustainability Assessment, 5 CP	Practical Phase and Basics of Project Work (introduction in the 5 <sup>th</sup> semester), 15 CP	The following consecutive master's programmes can be pursued after completing the bachelor's degree:  1. Polymer Engineering – Master of Science 4 semesters – 90 CP  2. Mechanical Engineering – Master of Science 4 semesters – 120 CP  3. Automotive Engineering – Master of Science 4 semesters – 120 CP  Qualification courses prepare students for following master's programmes:  4. Industrial Engineering – Master of Science 4 semesters – 120 CP  5. Mechatronics – Master of Science 4 semesters – 120 CP  The Diploma Supplement, which assigns an ECTS grade from A to E to the grade, simplifies the recognition of the degree abroad.			
		Heat and Mass Transport, 10 CP	Automation Engineering, 5 CP						
Engineering Mechanics: Fundamentals of Elastostatics, 5 CP	Engineering Mechanics: Elastostatics Specialisation, 5 CP	Introduction to Rheology, 5 CP	Injection Molding, 5 CP	Polymer Engineering Core Elective, 5 CP	Bachelor's Thesis with Colloquium, 15 CP				
		Machine Elements from Polymeric and Metallic Materials, 5 CP	Design Project/CAD, 5 CP	Polymer Engineering Core Elective, 5 CP					
Materials Engineering and Manufacturing Technology, 5 CP	Plastics Materials Science, 5 CP	Designing with Plastics, 5 CP	Polymer Engineering Core Elective, 5 CP	Fundamentals of Business Administration, 5 CP					
		Extrusion and Compounding, 5 CP	Polymer Engineering Core Elective, 5 CP	Interdisciplinary Challenges of Social Developments, 5 CP					
Computer Science, 5 CP	Measurement Technology, 5 CP								
Technical English, 2.5 CP	Chemistry, 2.5 CP								

CP: The size of the module blocks corresponds to the average amount of studying and learning required. Credit points (CP) are awarded for modules completed - usually 30 CP per semester.

Colour legend:   standard module   final thesis   practical phase   core elective, specialisations   interdisciplinary qualifications