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.



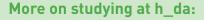
State University

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'.



h-da.de/praktischunschlagbar



Study Programme Mechatronics

Faculty of Mechanical and Plastics Engineering Schöfferstraße 3, Building C 12 64295 Darmstadt Phone +49 6151 533-5650 sekretariat.fbmk@h-da.de

Dual Study Programme

Mechatronics can also be pursued as a dual study programme: h-da.de/dual



Study Programme+

The study programme is also offered as Mechatronics+ (9 semesters), allowing more time, individual skills training and personal support.

fbmk.h-da.de/mechatronik-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 h-da.de/studienberatung

BAföG Student Grant & Student Accommodation studierendenwerkdarmstadt.de

Study Abroad

international.h-da.de

All information about the study programme:

fbmk.h-da.de/mechatronik-bachelor





Mechatronics

Bachelor of Science



Course Outline

The world of mechatronics encompasses many areas, such as 3D printing, driver assistance systems, Industry 4.0 and autonomous robots. The common thread is the development of intelligent networked systems with mechanical and electronic components.

The bachelor's programme in Mechatronics lies at the interface of mechanical and electrical engineering, as well as computer science. It enables students to understand, design and implement complex systems according to requirements. Over seven semesters, students acquire comprehensive basic engineering knowledge, which they put to practical use in project work and laboratory phases from the first semester onwards. Specialisation is offered in the fields of drive technology, automation and robotics. Furthermore, language skills and team qualifications are taught.

Optional preliminary courses and the Study Programme+ facilitate entry. The first year of study is closely interlinked with the Mechanical Engineering and Polymer Engineering study programmes, so that a change is possible. The EUT+ university alliance and established non-European partnerships offer a wide variety of study abroad opportunities.

We have already taken on h_da students twice for their practical phase – they were well-prepared for HiL testing and test automation. Both wrote their theses with us and are now part of our team. The close cooperation with h_da ensures that we attract highly-trained young talent."

Markus Steitz

Test&Validation, tracetronic GmbH, Dresden



Entry Requirements

- no admission restrictions (no NC)
- · start of studies in the winter 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

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

Career Prospects

Industries (selection):

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

Activities (selection):

- automation and robotics
- mechanical and plant engineering
- vehicle construction and drive technology
- aerospace technology
- information and entertainment technology
- chemical, process and process engineering
- management consulting

1st semester	1st semester 2nd semester	3rd semester	4th semester	5th semester	6 th semester	7th semester	8th semester	9th semester	10th semester
Development of Sustainable Systems, 10 CP	ainable Systems,	Measurement Technology, 5 CP	Control Engineering, 5 CP	Specialisation: Drive Technology		Practical Phase and Basics of Project Work	The following consecutive Master's programmes pursued after completing the Bachelor's degree:	The following consecutive Master's programmes can be oursued after completing the Bachelor's degree:	ammes can be degree:
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Mamematics, 13 CP		systems ineory, 5 CP	Mechatronic Systems, 5 CP	• Robotics, 40 CP		5	2. Mechanical Engineering – Master of Science 4 semesters – 120 CP	ering – Master of Sci CP	ence
		Electronics, 5 CP	Actuators, 5 CP				3. Electrical Engineering and Information Technology International – Master of Science 3/4 semesters – 90/120 CP	ing and Information ster of Science /120 CP	Technology
Computer Science I,	Computer Science II,						4. Data Science – Master of Science 4 semesters – 120 CP	ster of Science CP	
5 C P	5 C P	Engineering Mechanics: Kinematics and	Sensors, 5 CP			or's Thesis olloquium,	5. Automotive Engineering – Master of Science	ering – Master of Sci	ence
Physics, 5 CP	Engineering Mechanics:	Kinetics, 5 CP					6. Polymer Engineering – Master of Science	or ng – Master of Scienc	ø,
		Software Engineering,	Networks, 5 CP	eering Elective,	Engineering Core Elective,		4 semesters – 120 CP	CP -ing - Macter of Scie	9
Electrical Engineering,	Digital Technology, 5 CP	D D		5 CP	5 CP		4 semesters – 120 CP	CP rigate of other	D 2
d.		Microprocessors, 5 CP	Specialisation, 5 CP	Interdisciplinary Challenges	Fundamentals of Business		The Diploma Supplement, which assigns an ECTS grade from A to E to the grade, simplifies the recognition of the degree abroad.	The Diploma Supplement, which assigns an ECTS grade rom A to E to the grade, simplifies the recognition of the learnes abroad.	an ECTS grade cognition of th
Materials Science, 2.5 CP	Technical English, 2.5 CP			nents,	Administration, 5 CP				