

Welcome to Velbert/Heiligenhaus Campus (CVH)

We are happy to have you here!

Prof. Dr.-Ing. Markus Lemmen

Introducing myself

- >Campus Spokesperson
- >Programme Director
- >Professor for Controls and Automotive Systems
- >In your programme:
 - >'Signals and Controls' – 2nd semester
 - >'Automated Driving' – 3rd semester



What to **expect today**

- > Information about our campus
- > Your programme at a glance
- > Get to know some contact persons
- > Outlook for the next days
- > How to study at CVH (website, schedule, exams, AI)
- > Safety instructions (12:30)
- > Barbecue with the Student Council (from 13:00)



Our Campus

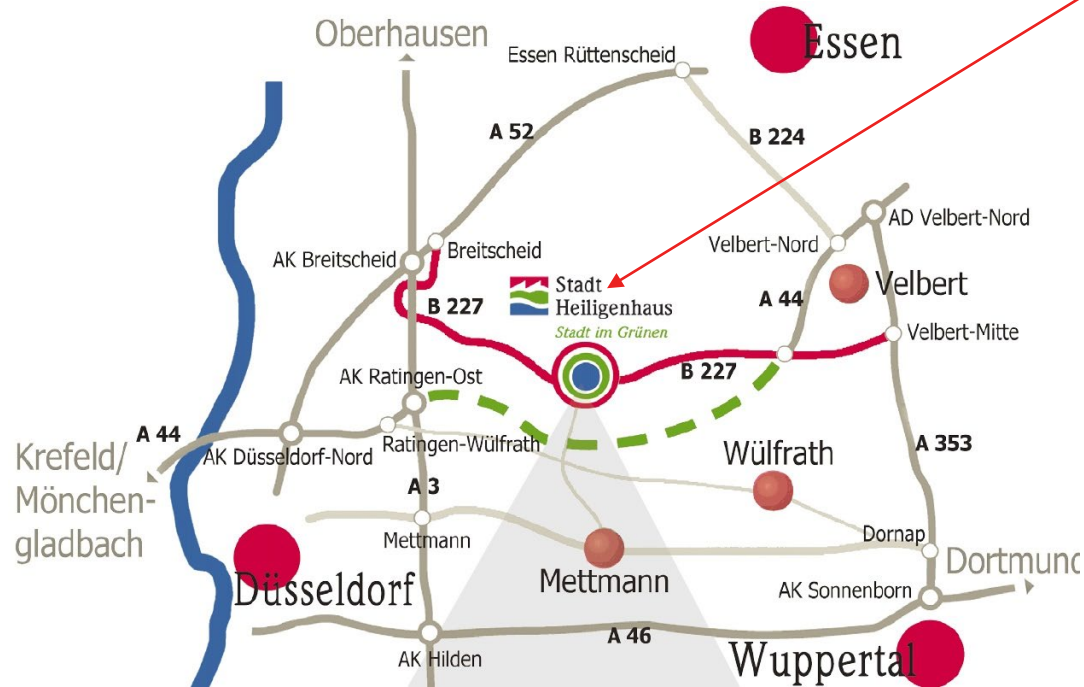
Facts

- › Founded as an external location of Bochum University of Applied Sciences
- › 13 professors + further employees
- › Around 350 students
- › Focus on STEM degree programmes (German: MINT – Mathematics, Computer Science, Natural Sciences, Technology), especially computer science and engineering
- › Bachelor's and Master's degree programmes
 - First time 'Mechatronics' in winter semester 2026/27 (first programme in English)



Our campus

Located between three big cities



> Where do you live now?

Where do you **come from?**

Our first Mechatronics cohort

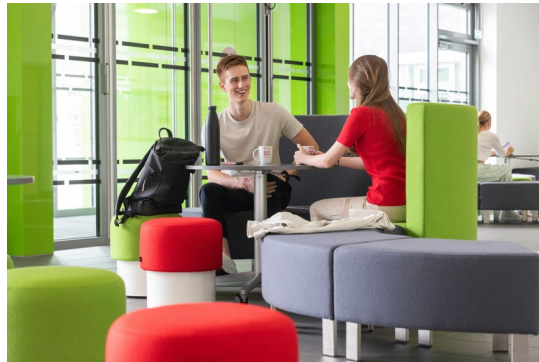
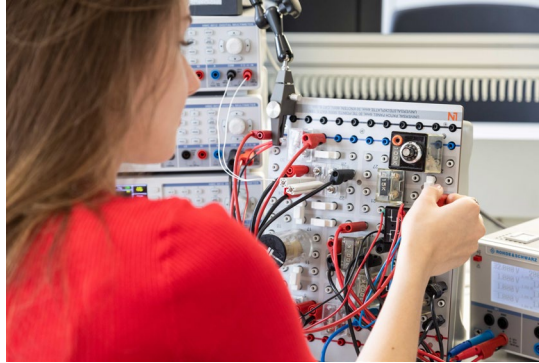


33 students from India, Canada, Egypt, Togo, Tunisia, Yemen and beyond – including one who joins us from our Central Campus in Bochum

Our **campus**

What sets us apart

- › Personal atmosphere
- › Modern equipment
- › Practical training
- › Regional proximity



Selection of **research specialisations**

- Cyber-physical systems
- Smart Systems
- Applied Artificial Intelligence & Data Science
 - including the AKIS Institute focussing on sustainability, water and the environment, robotics and Industry 4.0, autonomous driving and intelligent mobility
 - Practical training courses for machine learning and artificial intelligence
- Sensor technology, measurement technology, pattern recognition, computer vision
- Automotive



More information at the website and in the brochure

Research-relevant **equipment** on campus

- > Own workshop (turning, milling, sawing, welding, ... , manufacturing circuit boards)
- > Multi-technology centre with steering system test bench (dSPACE), hydropulser, robot
- > Industry 4.0 training factory with Delta robot, among other things
- > Very powerful computers and servers for machine learning and artificial intelligence, among other things
- > 3D printer



Selection of **research activities** with students

VDI Autonomous Driving Challenge
German Engineering Association



Tiny House



Transfer Traiber NRW



Selection of **research activities** with students

Recognising ragwort in pastures

Problem

- Horses can eat ragwort as hay
- The herb is (irreversibly) toxic to the liver
- Spread is increasing in Germany
- Removal with great effort

Project **objective**

- Automate the detection and localisation of ragwort in pastures

Solution **approach**

- Drone flies over meadow before harvesting & shows the affected areas
- Use of image processing methods and AI



Your **programme** at a glance

Master Mechatronics – 4 semesters, 120 ECTS

1st semester winter 2026/27	2nd semester summer 2027	3rd semester winter 2027/28	4th semester summer 2028
Vehicle Dynamics Sensors and Mobile Robots Applied Electromagnetism Software for Mechatronic Systems German Language	Advanced Computer-Aided Engineering Signals and Controls Electric Drives Lab Project (part 1) German Language	Functional Materials Automated Driving Digital Image Processing Control of Electric Drives Lab Project (part 2)	Master's Thesis & Colloquium

Lab Project: a hands-on project over two semesters, supervised by all professors. Details for each module: Module Manual.

Contact Persons

Prof. Dr.-Ing. **Mohammad Ashfaq**

>Professor for Applied Electronics and
Electrical Engineering

>In your programme:

>‘Electric Drives’ – 2nd semester

>‘Control of Electric Drives’ – 3rd semester



Prof. Dr.-Ing. **Stefan Breuer**

- › Professor for Mechanics and Vehicle Dynamics
- › In your programme:
 - › ‘Vehicle Dynamics’ – 1st semester



Prof. Michael Danner, Ph.D.

>Professor for Autonomous Systems

>In your programme:

- >'Sensors and Mobile Robots'
 - 1st semester



Prof. Dr.-Ing. **Dietmar Gerhardt**

›Professor for Electronics and
Signal Processing

›In your programme:

›‘Digital Image Processing’ – 3rd semester



Prof. Dr. **Peter Gerwinski**

- › Professor for Embedded Systems
- › In your programme:
 - › ‘Software for Mechatronic Systems’
 - 1st semester



Prof. **Herbert Schmidt**, Ph.D.

>Professor for Physics and Materials

>In your programme:

>‘Applied Electromagnetism’ – 1st semester

>‘Functional Materials’ – 3rd semester



Prof. Dr.-Ing. **Gregor Steinberger**

>Professor for Construction and CAE

>In your programme:

- >'Advanced Computer-Aided Engineering'
 - 2nd semester

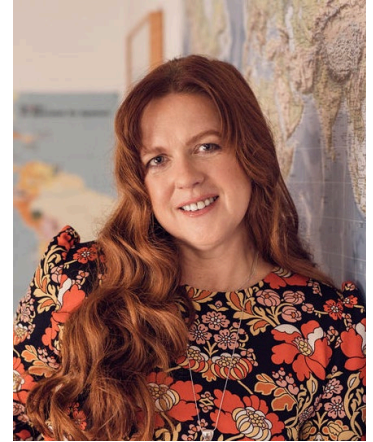


Stephanie Klein, M.A.

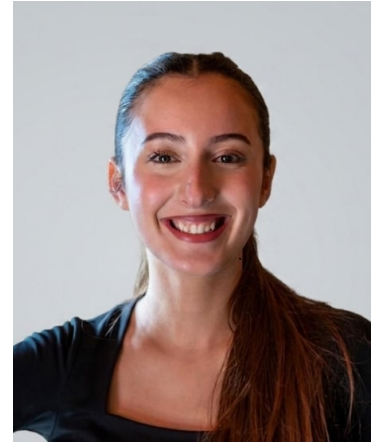
›Lecturer for Languages

›In your programme:

›‘German Language’ – 1st & 2nd semesters



Doae El Hassouni, Bachelor's student



- › Assistant for the students in the 'Master Mechatronics' programme
- › Contact her via Just (BO App) or via email (doae.el-hassouni@stud.hs-bochum.de)
 - › For organisational questions
 - › Either she knows the answer, or she'll forward your question to the appropriate person

More Contact Persons

You will meet them in the next days

Kathrin Hell

> Study Office



Sabrina Allkämper & Marie Ziegler

> Campus Library



More Contact Persons

You will meet them in the next days

Cora Brose & **Birgit Funke**

> Campus Organisation



The Student Council

You will meet some of them at the barbecue

- › Students helping students – ask them anything about studying and living here
- › Join the WhatsApp group for first-year students (link on the ‘First-year students’ page)
- › Website of the Student Council:

<https://www.hochschule-bochum.de/en/cvh/student-council>



International Office

Katrin Heymann (Head of)

Bochum University of Applied Sciences

An aerial photograph of the Bochum University of Applied Sciences campus. The image shows several large, modern buildings with glass and concrete facades, interspersed with dense green trees. In the background, a cityscape is visible under a blue sky with scattered clouds. The university's logo, a red 'BO' with a stylized 'U' and 'A' inside, is visible on one of the buildings.

Bochum University
of Applied Sciences
TECHNOLOGY · BUSINESS · HEALTH



Facts

- Founded in 1971 and 2009
- 3 campuses
- 10.000 students
- 80 study programs
- Around 200 professors
- No tuition fees



Central Campus

- Diverse Programs
- Innovation & Research
- Industry Connections
- Student Life
- Global Opportunities



- Therapy Sciences, Health Sciences & Healthcare
- Interdisciplinary Approach
- Practical Training & Innovation Labs
- Collaboration with healthcare institutions

Health Campus



- Mechatronics, Electrical & Mechanical Engineering, IT
- Strong collaboration with regional companies
- Modern Learning
- Dual Study Options
- Supportive Environment

**Campus Velbert/
Heiligenhaus**

- Our team: 6 colleagues
 - Student Exchange (Incoming/ Outgoing)
 - International Degree Seeking Students
 - Scholarships

International Office

Katrin Heymann

Head International Office





International Office

Kerstin Barton

International Students

welcome@hs-

bochum.de

Support with administrative and organisational
matters

- First contact for concerns and problems





International Office

- Connecting international students
- Social activities to help integrate into university life
- Events
- Networking support
- Scholarships for International Students (Antonia Gawronski)



Do not miss

- 2. October: “Living in Germany” – Intercultural Workshop with Kerstin Barton
- 14./15. November: “Weekend at River Rhine” – Visit the iconic “Dragon’s Rock” (Drachenfels): Registration needed
- International X-Mas Party at Main Campus Bochum
- Excursions (X-Mas Market, BVB Stadium etc.)



Do not miss

- 14./15. November: Weekend at the Rhine
- Visit to the medieval Drachenfels Castle Ruins
- Cooking Night Together
- Exclusively for students in the Master's programme in Mechatronics
- Registration by 14.10.2026
- Costs (all inclusive): 23€



Internationalisation

- 97 partner universities
- 33 countries
- 50 incoming exchange students per year
- 180 outgoing students per year
- 800 international degree seeking students



- English-taught master programmes
- Study programmes with obligatory stay abroad
- Language courses
- Intercultural workshops

Internationalisation



Stay in Contact

- Follow us on Instagram and never miss a thing



internationaloffice_hsbochum

Outlook for the next days

Activities 1–6 October 2026

<https://www.hochschule-bochum.de/en/cvh/first-year-students/>

October 1 (Thursday)

- > 10:00–12:15: Welcome to CVH (room 0-02)
- > 12:30–13:00: Safety Instructions (room 0-02)
- > 13:00–open end: Barbecue with the Student Council

October 2 (Friday)

- > 09:30–12:30: Living in Germany (room 0-02)
- > 12:30–13:30: Lunch & Questions (room 3-29)
- > 13:30–14:15: IT for Students: Moodle, exam registration (room 0-02)
- > 14:15–14:45: Campus Tour

October 5 (Monday)

- > Start of lectures, 09:00–14:45 (see schedule)

October 6 (Tuesday)

- > Lecture day, 09:00–15:30

Activities 7–9 October 2026

<https://www.hochschule-bochum.de/en/cvh/first-year-students/>

October 7 (Wednesday)

- > 09:30–12:30: Summer School Part I – Check your Python skills! Are you ready for your programme? (room 2-53)
- > 13:30–14:30: Important places to go in Heiligenhaus
- > 14:30–15:30: Coffee & Questions (room 3-29)
- > 15:30–open end: Social activity (details to follow)

October 8 (Thursday)

- > Lecture day, 11:30–19:00

October 9 (Friday)

- > 09:30–10:30: The Healthcare System in Germany (room 0-31)
- > 10:30–11:30: Coffee & Questions (room 3-29)
- > 11:30–14:30: Summer School Part II (room 2-53)

The schedule is still subject to change – please check the website regularly for updates.

A 5-minute break

How to study at CVH

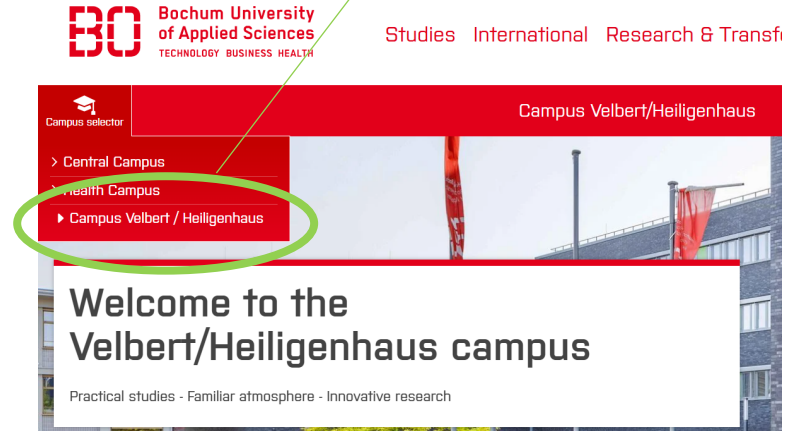
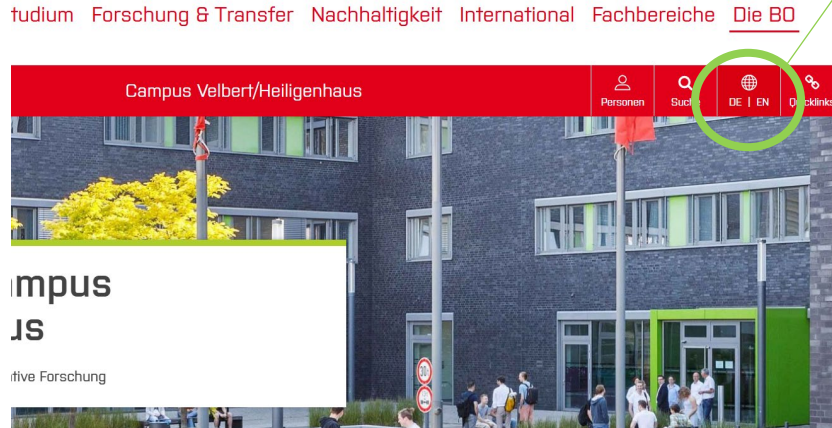
- › Use the website! → **CVH** (not the main BO page)
 - › Schedule & Courses
 - › Important Documents (Study Plan, Module Manual ...)
- › Exams and the use of AI
- › Communication
 - › Email and Just Social
- › Good to know: useful links

Use the website

Find Your Way Around

Language

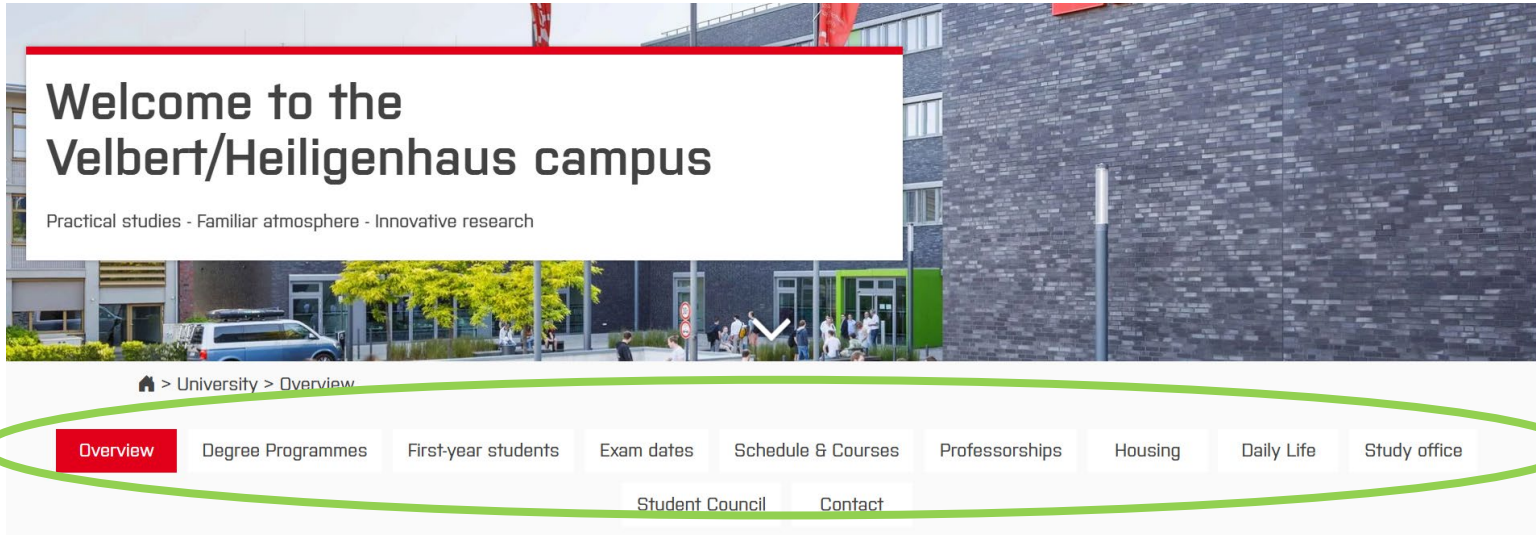
Campus



> Choose Language and Campus

Use the website

All information you need

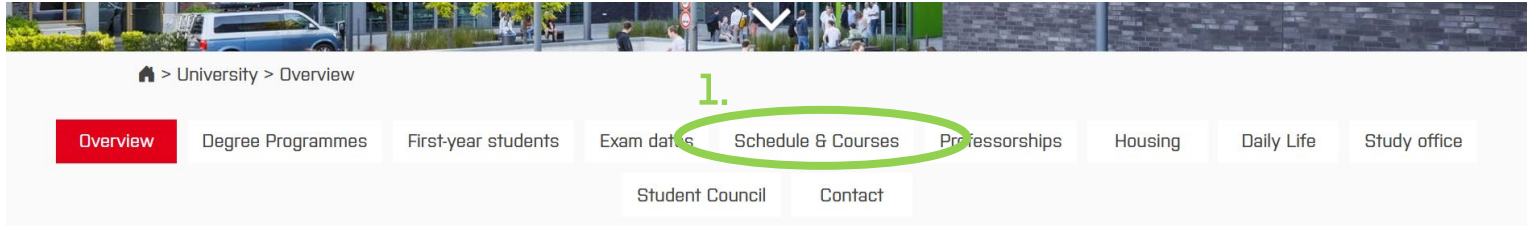


> Check the menu UNDER the picture

> Get familiar with the website

Use the website

Schedule & Courses: Schedule



Schedule and Courses

Schedule WS 2026/2027

Lectures begin for everyone on October 5, 2026.

Last day of lectures: January 26, 2027.

2.

Schedule Master Mechatronics 1. Semester >

A screenshot of a weekly schedule for "Master M". The schedule is presented as a grid with days of the week (Monday to Friday) as columns and time slots (8:00 to 19:00) as rows. The grid is color-coded: green for regular lectures, red for seminars, and grey for non-lecture times. A legend at the top right indicates "green and red" for "lecture" and "seminar". The schedule shows various lecture and seminar times for different courses, including "Mechanics", "Electronics", and "Control Systems".

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00					
9:00	Electronics 1.01 - Seminar	Electronics 1.02 - Seminar			
10:00					
11:00	Electronics 1.01 - Seminar	Electronics 1.02 - Seminar			
12:00					
13:00	Lunch break	Lunch break			
14:00	Electronics 1.01 - Seminar	Electronics 1.02 - Seminar			
15:00					
16:00					
17:00					
18:00					
19:00					

Use the website

Schedule

Master M

Bochum University of Applied Sciences – Campus Velbert/Heiligenhaus – winter semester 2026/27 – effective: 2026-09-18

lecture and exercise practical course review

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00					
9:00	Electromagnetism 0-01 – Seminarraum	Vehicle dynamics 1-43 – Seminarraum			
10:00					
11:00	Electromagnetism 0-01 – Seminarraum	Vehicle dynamics 1-43 – Seminarraum			
12:00				Software for mechatronic systems 3-30 – Seminarraum	
13:00	lunch break	lunch break			
14:00	Revision Course Electromagnetism 0-01 – Seminarraum	Sensors and mobile robots 1-43 – Seminarraum		lunch break	
15:00				Software for mechatronic systems 3-30 – Seminarraum	
16:00		Sensors and mobile robots 1-20 – RACE-Lab 4 events per semester See notice board.			
17:00				German language 3-30 – Seminarraum	
18:00				German language 3-30 – Seminarraum	
19:00					

No elective courses

> All Mechatronics students
have the same schedule

Practical course:

- > Does not take place every
week
- > Attendance is mandatory

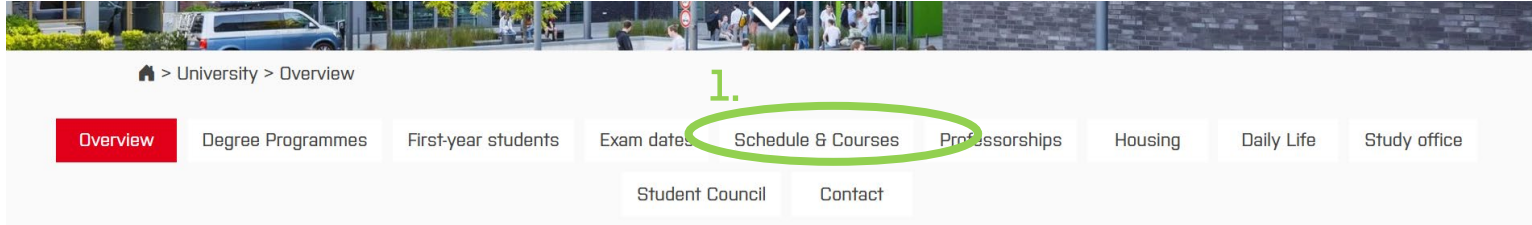
Room numbers:

> 0-01 3-30

→ #Floor - #Room

Use the website

Schedule & Courses: Courses



2.

Current courses

Here you will find more detailed information about your courses.

For most courses you have to register in [moodle](#) .

Master Mechatronics [English]

- ✓ Sensors and mobile Robots [Danner]
- ✓ Software for mechatronic systems [Gerwinski]
- ✓ Vehicle Dynamics [Breuer]
- ✓ Electromagnetism [Schmidt]
- ✓ Revision Course Electromagnetism [Schmidt]
- ✓ German Language [Klein]

> Here you will find all the courses offered this semester in the Master's programme in Mechatronics.

Use the website

Schedule & Courses: Courses

Example: Sensors and Mobile Robots

Master Mechatronics (English)

^ Sensors and mobile Robots (Danner)

- This course will be held in person.
- The first session will take place on **6 October 2026**, as scheduled in the timetable.
- Please enrol in the Moodle course "[Sensors and mobile Robots](https://moodle.hs-bochum.de/course/view.php?id=11582)", where you will find the lecture notes and additional learning materials.
<https://moodle.hs-bochum.de/course/view.php?id=11582>
- The dates for the practical sessions will be announced later by email and during the lectures.
- If you have any questions, please contact [M. Danner](#).

[Close]

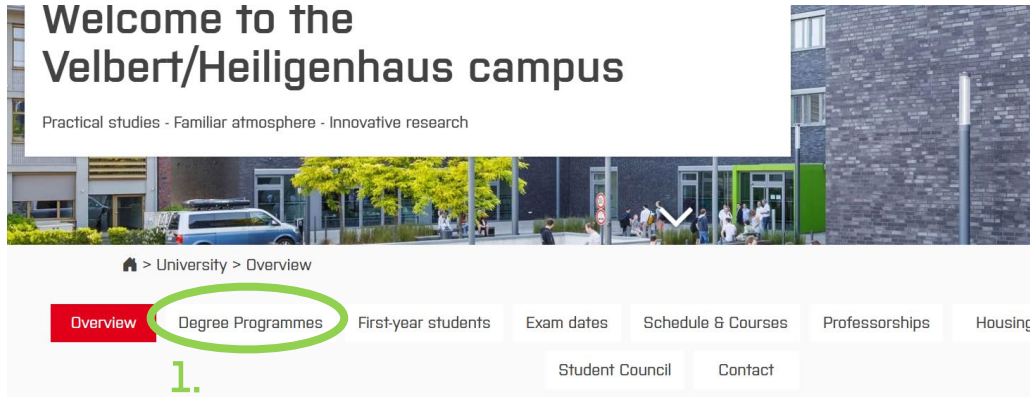
✓ Software for mechatronic systems (Gerwinski)

> Please read through the information.

> Do you need to do anything?
For example, log in to Moodle.

Use the website

Important Documents



> Choose your degree programme

Degree Programmes

Master's degree programmes

At CVH, master's-level courses are generally held only two provides a great opportunity to work part-time while studyi



2.

Mechatronics (English language)

Design, develop, and optimize intelligent machines;
In-depth expertise in classical mechatronics—with a special focus on autonomous robotics and automated driving.



Computer Science (German language)

Possible to study at Heiligenhaus

Use the website

Important Documents

✓ Admission requirements

3. Degree Programme Regulations

Prüfungsordnung vom 04.02.2026 [AB 1383]

 Prüfungsordnung	PDF 205 KB
 Studienverlaufsplan englisch	PDF 72 KB
 Studienverlaufsplan deutsch	PDF 71 KB
 Modulprüfungen englisch	PDF 59 KB
 Modulprüfungen deutsch	PDF 31 KB
 Module Manual for the Master's Degree Programme in Mechatronics As of: April 2026	PDF 310 KB

- > Prüfungsordnung = Examination Regulations
- > Studienverlaufsplan = Study Plan
- > Modulprüfungen = Overview of Module Exams
- > Module Manual

How **exams** work in Germany

Key rules – details in your Examination Regulations

- › You must register for every exam yourself – attending the course is not enough (more in ‘IT for Students’ on Friday)
- › Deadlines for registration and withdrawal are strict – check the exam dates on the CVH website
- › The number of exam attempts is limited – see the Examination Regulations (Prüfungsordnung)
- › Cheating and plagiarism are taken very seriously and can lead to a failed exam
- › If in doubt, ask early: your lecturers or the Study Office

Using **AI tools** in your studies

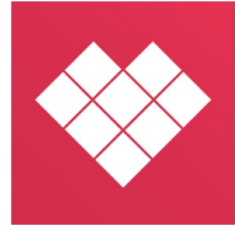
Transparency and responsibility

- › There is no uniform rule for AI across Hochschule Bochum – if in doubt, ask your lecturer
- › Be transparent: state how, for what and to what extent you have used AI
- › You are always responsible for the content and its correctness – not the AI
- › **Our recommendation:**
 - › Fine: improving individual sentences and phrasing
 - › Not fine: having AI write whole chapters or even your entire work
 - › AI is a tool – not the main “supplier” of your assessed work

Communication

Email and Just Social (BO App)

- › Please use only your university email address (no private email address).
- › Registration at 'Just Social' is necessary.
- › The official communication channel of Hochschule Bochum.
- › The only channel that still works in the event of a cyber attack.
- › Join the official group for incoming students.
- › Registration instructions: see the 'First-year students' page.



Good to know

Useful links for your start

- › Moodle – our central learning platform: moodle.hs-bochum.de (please sign up!)
- › Wi-Fi on campus: eduroam – instructions at help.hs-bochum.de
- › Handbook for Incomings from the International Office – linked on the ‘First-year students’ page
- › Housing and daily life: see ‘Housing’ and ‘Daily Life’ in the CVH menu
- › Follow CVH on Instagram, Facebook and YouTube

Thank you!
Now a short break

12:30
Safety instructions (Prof. Breuer)