

Mechatronics Master of Science

Entry requirements:

A qualified bachelor's degree or diploma in one of the fields of mechatronics, mechanical or electrical engineering with an overall grade of 2.5 or better and at least 210 CP for the 3-semester master's programme. Applicants with a qualified bachelor's degree or diploma in one of the fields of mechatronics, mechanical or electrical engineering with an overall grade of 2.5 or better and at least 180 CP can be admitted to the 4-semester master's programme.

- The faculty offers qualification courses for applicants lacking basic knowledge (e.g. in the fields of mathematics, engineering mechanics, electrical engineering, computer science) for the core subjects of the master's programme. Participation in and successful completion of these qualification courses may be defined by the Examination Board as additional courses to the regular master's programme for those applicants.
- In individual cases, applicants with a grade of better than 3.0 and an ECTS grade of "C" or better may be admitted on application. The prerequisite for this is that candidates show a clear affinity to the field of study, in particular through good performance in basic subjects.
- Admission also requires sufficient knowledge of English, which can be demonstrated by one of the following options:
 - TOEFL internet based score 88 or better
 - IELTS minimum band score 6.5 or better
 - Cambridge Certificate FCE First Certificate of English (General English, B2), Grade A BEC Vantage (B2), Grade B or better
 - Cambridge Certificate BEC Higher (C1), Grade C or better
 - for graduates from h_da: language skills according to qualification level B2 based on a course of the Language Centre to be specified by the Examination Board of the master's programme (equivalent to the aforementioned certificates).

For detailed and binding information, please refer to the BBPO.

	1 st semester	2 nd semester	3 rd semester	Career Prospects:
<p>Real-time and Structural Simulation, 5 CP</p> <p>Requirements Engineering and Management, 5 CP</p> <p>Mechatronics Core Elective or Research Project, 5 CP</p> <p>Mechatronics Core Elective or Research Project, 5 CP</p> <p>Engineering Research Project, 7.5 CP</p> <p>Interdisciplinary Challenges of Social Developments, 5 CP</p>	<p>Structural Dynamics, Simulation, and Validation, 7.5 CP</p> <p>Industry 4.0 - IIoT and the Digital Factory, 5 CP</p> <p>Mechatronics Core Elective or Research Project, 5 CP</p> <p>Mechatronics Core Elective or Research Project, 5 CP</p> <p>Economics and Sustainability in Enterprises Core Elective, 5 CP</p>	<p>Master's Seminar on Scientific Publishing, 5 CP</p> <p>Master's Thesis with Colloquium, 25 CP</p>	<p>The master's degree</p> <ul style="list-style-type: none"> qualifies graduates e.g. for positions <ul style="list-style-type: none"> in research and development, in production, sales and product management, at technical level, in management or as a freelancer, in global companies or regional SMEs <p>in the following industries (selection)</p> <ul style="list-style-type: none"> machine, plant and automotive engineering, electrical engineering and automation, information and entertainment technology, aerospace technology, chemical and process engineering, energy and environmental technology <ul style="list-style-type: none"> qualifies graduates for higher civil service positions and provides an opportunity to pursue a doctorate. <p>The Diploma Supplement, which assigns an ECTS grade from A to E to the grade, simplifies the recognition of the degree abroad.</p>	

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