

Master of Science (M. Sc.) Mechanical Engineering / Mechatronics Hochschule Kaiserslautern (HS KL) Dept. of Engineering

**Fact Sheet Double Degree
in cooperation with University West (UW), Trollhättan, Sweden**

01.07.2021

Curriculum for Outgoings

60 ECTS Master Programme (M. Sc. in Mechanical Engineering) at University West

start: autumn or spring

elective module 1
elective module 2
elective module 3

1. semester

Mobility Module 30 ECTS at University West (UW)
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2. semester

Master's thesis and colloquium
2 supervisors: HS KL & UW

3. semester

Curriculum for Outgoings

120 ECTS Master Programme (M. Sc. in Mechanical Engineering) at University West

start: autumn or spring

elective module 1
elective module 2
elective module 3

1. semester

Mobility Module 30 ECTS at University West (UW)
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2. semester

Master's thesis and colloquium 2 supervisors: HS KL & UW

3. semester

additionally needed 30 ECTS at UW also online
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4. semester

Courses available for Double Degree students at UW for the academic year 2021 – 2022

Manufacturing Engineering / Metal Additive Manufacturing

- Advanced Materials Science (6 ECTS)
- Additive Manufacturing Processes (7.5 ECTS)
- Surface Engineering (7.5 ECTS)
- Phase Transformation (6 ECTS)
- Machining (6 ECTS)
- Academic Writing (3 ECTS)
- Operations Management (7.5 ECTS)
- Statistical Process Control and DoE (7.5 ECTS)
- Process Simulation & Modelling in Welding and AM (7.5 ECTS)
- Robot Systems (7.5 ECTS)
- Hybrid Manufacturing (3 ECTS)
- Computer Aided Manufacturing (3 ECTS)

Courses available for Double Degree students at UW for the academic year 2021 – 2022

Manufacturing Engineering / Metal Additive Manufacturing

- Post Processing in AM (6 ECTS)
- Fatigue and Fracture Mechanics (6 ECTS)
- Thermal Spraying (6 ECTS)
- Welding processes (6 ECTS)
- Non-destructive Evaluation (4 ECTS)
- Materials Characterisation and Testing (3.5 ECTS)
- Welding Metallurgy (7.5 ECTS)

Courses available for Double Degree students at UW for the academic year 2021 – 2022

Robotics and Automation

- Robot Certificate (1.5 ECTS)
- Robot Modelling (6 ECTS)
- Digital Factories (6 ECTS)
- Manufacturing process optimisation (5 ECTS)
- Robot Simulation (6 ECTS)
- Robot Systems (6 ECTS)
- Scientific Methods in Robotics and Automation (3 ECTS)
- Automation Systems (6 ECTS)
- Automation and Robotics Research (6 ECTS)
- Simulation of Automated Production (3 ECTS)
- Dynamics and Motion Planning (6 ECTS)
- Smart Sensing (6 ECTS)
- Machine Vision (3 ECTS)

Courses available for Double Degree students at UW for the academic year 2021 – 2022

Project courses

- Industrial Placement (15 ECTS)

Contacts

Hochschule Kaiserslautern

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University West

- <https://www.hv.se/en>
- Double Degree: Dr. Hanna Aknouche-Martinsson,
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