

Curriculum for the Master's programme Renewable Energy and E-Mobility 4-semester variant with internship semester

The study plan for the 4-semester Master's programme Renewable Energy and E-Mobility with internship semester is composed of the following compulsory and elective modules.

Course	Type	1.	2.	3.	4	SWH	ECTS
Mathematical-scientific and technical bases						8	12
REEMM1300 - System Theory	CM		4+0			4	6
REEMM2140 - Modelling of Physical Systems	CM	2+2				4	6
Specialized technical bases of renewable energy						12	18
REEMM1400 - Renewable Energy Systems	CM	4+0				4	6
REEMM2130 - Power Electronics ^A	CM	3+1				4	6
REEMM2200 - Methods of Power Engineering	CM		3+1			4	6
Application-oriented profiling, elective modules						16	24
REEMM2010 - Elective Module (AO) I	EM	4				4	6
REEMM2020 - Elective Module (AO) II	EM		4			4	6
REEMM2030 - Elective Module (AO) III	EM		4			4	6
REEMM2040 - Elective Module (AO) IV ^B	EM		4			4	6
Interdisciplinary qualifications (1 from 2)						4	6
REEMM3600 - Quality in Automotive Industry	EM *)	3+1				4	6
REEMM3800 - Energy and Environmental Management	EM *)		3+1			4	6
Internship semester	CM			21W		21W	30
Master-Thesis with colloquium	CM				6M	6M	30
Total		20	20	5M	6M	40+11M	120

Open list of elective modules (AO) (according to § 6 of the regulations of study programme):

- Hydrogen Technology
- Solar Systems
- Wind Power Plants
- Advanced Power Electronics
- Vehicle Management Systems
- Control of electrical drives
- Project Seminar E-Mobility
- Current Topics of renewable energy use I and II
- Project Renewable Energy
- Sustainable non-fossil mobility
- Vehicle Simulation & Test Drive
- Fuel Cell Systems

Open list of elective modules (F) (according to §6 of the regulations of study programme):

- Selected Topics of Control Engineering
- International Accounting
- German as a foreign Language I
- Electrical Energy Conversion and Transmission
- Human Resources Management
- German as a foreign Language II

- This list also contains all modules of the list AO.
- It is also possible to choose one of the modules "Quality in Automotive Industry" or "Energy and Environmental Management" if it was not chosen in the category interdisciplinary qualifications.

Explanations:

- CM = Compulsory Module,
EM = Elective Module
A = If students have already taken the subject Power Electronics in their bachelor studies according to § 3 FPO, they must choose a module from the list of elective modules (F) instead.
B = If, according to § 3 FPO, students do not have a bachelor's degree in electrical engineering or a related program, they must take the module REMMM 2120 "Electrical Energy Conversion and Transmission" instead. In this case, the module may not be chose again as an elective.
*) = One of these two modules must be selected; on request, additional modules from the area of "Interdisciplinary qualification" from other Master's degree courses in the Department of Electrical Engineering and Computer Science can also be selected.
6M = 6 months
x + y = Lecture-/ seminar-style tuition- / exercise hours + laboratory-/seminar hours

The subdivision of the semester week hours (SWH) during lecture-/ seminar-style tuition- / exercise hours + laboratory-/seminar hours is a proposal, which can be varied by the instructor in his / her own direction.