Curriculum for the Master's programme Renewable Energy and E-Mobility 3-semester variant

The study plan for the 3-semester Master's programme Renewable Energy and E-Mobility consists of the following compulsory and elective modules. The study plan is valid for enrolment in the summer semester. If enrolment takes place in the winter semester, the first and second semesters must be exchanged.

Course	Type	1.	2.	3.	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
Master-Thesis with colloquium	CM			6M	**6M**	**30**
Total		**20**	**20**	**6M**	**40 + 6M**	**90**

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.