SuRE Curriculum

Last Update 06.02.2025

Valid from Winter Term 2025/26

Start 1st Semester:
Every Winter Term

Mandatory Module	Elective Module
Mandatory Course	Elective Course

For navigation in StudIP:
pre017 to pre132 Module Code Number
05.06.M101 … Lecture Code Number

1st Semester - Winter Term

pre017 Renewable Energy Laboratories 6 CP		pre225 Renewable Heat and Programming Tools 6 CP		pre220 Energy Systems and Management 6 CP		pre210 Photovoltaics 6 CP	pre215 Wind Energy 6 CP
Introductory Laboratory 5.06.M101	Renewable Energy Laboratories 5.06.M106	Python Programming for Data Analysis 5.06.M113	Renewable Energy Heat 5.06.M123	Renewable Energy Management 2.02.320	Energy Systems 5.06.M119	Photovoltaics (New)	Basics of Wind Energy (New)

2nd Semester - Summer Term

pre041 Sustainability of Renewable Energy 6 CP	Compulsory Electives Renewable Energy Systems Laboratory 6 CP	Specialisation *Choose one of the specialisations below <u>including two of the respective modules</u>* 12 CP			Electives 6 CP
Sustainability of Renewable Energy 5.06.M201	pre240 Advanced Solar Energy Lab 6 CP	Specialisation: Solar Energy			*Students choose two modules, each worth 6 CP, from one of the specialisation areas, from the Renewable Energy Systems Laboratory or from the modules listed below. Further modules can be approved by the Examination Board on application.* *pre230* *Simulation of Renewable Energy Systems* *pre064* *Renewable Energy Complementary Topics and Transferable Skills* *preXXX* *Language Course*
		pre113 Photovoltaic Systems 6 CP		pre114 Solar Energy Meteorology 6 CP	
	To be defined	Photovoltaic Systems *Lecture + Seminar* 5.06.M207		Solar Energy Meteorology 5.04.M211	
	phy646 Wind Physics Students' Lab 6 CP	Specialisation: Wind Energy			
		phy616 Computational Fluid Dynamics 6 CP		phy648 Wind Resources and its Applications 6 CP	
	Wind Physics Students` Laboratory: Wind Turbine Rotor in Turbulent Inflow 5.04.4239	Computational Fluid Dynamics I 5.04.4072	Computational Fluid Dynamics II 5.04.4074	Advanced Wind Energy Meteorology 5.04.4065	Wind Energy Applications - from Wind Resource to Wind Farm Operations 5.06.M213
		phy649 Design of Wind Energy Systems 6CP		phy987 Control of Wind Turbines and Wind Farms 6 CP	
		Design of Wind Energy Systems *Lecture + Project* 5.04.4235		Control of Wind Turbines and Wind Farms *Lecture + Exercise* 5.04.4256	
	pre245 Advanced Grid Integration Lab 6 CP	Specialisation: System Integration of Renewable Energy			
		phy647 Future Power Supply Systems 6 CP		inf5112 Digitalised Energy System Modeling and Control 6 CP	
	To b defined	Future Power Supply Systems *Lecture* 5.06.M215	Future Power Supply Systems *Seminar* 5.06.M216	Digitalised Energy System Modeling and Control *Lecture + Exercise* 2.01.5112	
				pre250 Energy Storage 6 CP	
				Energy Storage 5.06.M127	

3rd Semester - Winter Term

pre290 Renewable Energy Project 6 CP	pre280 Internship 6 CP	Electives 6 CP	pre152 Resilient Energy Systems 6 CP	pre200 Selected RE Technologies 6 CP	
Renewable Energy Project 5.06.M301	Internship 5.06.M305	Students choose two modules, each worth 6 CP, from one of the specialisation areas, from the Renewable Energy Systems Laboratory or from the modules listed below. Further modules can be approved by the Examination Board on application. (see Electives 2nd semester)	Resilient Energy Systems *Lecture + Seminar* 5.06.M308	Hidden champions of RE 5.06.M315	Hydrogen & Fuel Cells 5.06.M317

4th Semester - Summer Term

mam Master's Thesis Module 30 CP	
Master Thesis (supervising professor and PPRE staff member and/or local supervisor)	Master Thesis Colloquium 5.06.000 W

New Lecture Code Numbers
5.06.MXYYY
5 - Faculty
06 - PPRE
M - Master
X - Semester
YYY - Course Number