

Modul CMS-EE-EPM	Electric Power Markets			Responsible Lecturer:			Prof. Dr. Dominik Möst	M1100-CMS50
Compulsory Module								
Course Title	Faculty	Lecturer	SWS Effort	Language	Semester	Examiner	Examination performance	Course number Selma
Elektrizitätswirtschaft / Power System Economics	Wiwi	Dominik Möst	2V/2Ü	german (with english slides)	Winter	Dominik Möst	Written Examination 90 min/ Oral Assessment 45 min < 10 participants	K1001-14M050V/Ü

Modul CMS-EE-EL1		Computational Modelling in Energy Economics Basics			Responsible Lecturer:	Prof. Dr. Dominik Möst					M1100-CMS51	
Compulsory Module with Electives Catalogue (Setpoint: 8 SWS)												
Eine Lehrveranstaltung des Katalogs CMS-EE-EL1 kann nicht gewählt werden, wenn diese bereits in einem anderen Pflichtmodul mit wahlpflichtigem Inhalt bzw. in einem Wahlpflichtmodul der Grundlagenausbildung im Masterstudiengang Computational Modeling and Simulation gewählt wurde.												
Please note that any course of the catalogue CMS-EE-EL1 cannot be selected if it has been already selected for another CMS-module.												
Die Modulnote ergibt sich aus dem nach Semesterwochenstunden (SWS) gewichteten Durchschnitt der Noten der Prüfungsleistungen. The module grade is the average of the grades of the individual examinations, weighted by course effort (SWS, lecture hours per week).												
Nr.	Course Title	Faculty	Lecturer	SWS Effort	Language	Semester	Examiner	Examination performance	Duration	Weighting according to SWS	Course number Selma	Information
1	Advanced Problem Solving and Search	INF	Dr. Lucía Gómez Álvarez Sarah Alice Gaggl	2V/2Ü	english	Winter	Sebastian Rudolph	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1107-MA0056	
2	Advanced User Interfaces	INF	Raimund Dachzelt Anke Lehmann	2V/2Ü	german/ english	Summer	Raimund Dachzelt Anke Lehmann	Written Examination	90 min	4	K1104-MA0001	Exercise is a prerequisite
3	Applied Power System Economics	Wiwi	Dominik Möst	4 Seminar	english	Winter	Dominik Möst	1. Seminar paper 2. Oral Presentation		4	K1001-14M607S	
4	Data Visualization	INF	Raimund Dachzelt Stefan Gumhold	2V/2Ü	german/ english	Winter	Raimund Dachzelt Stefan Gumhold	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1104-CMS03	
5	Design Patterns and Frameworks	INF	Uwe Aßmann Sebastian Götz	2V/2Ü	english	Winter	Uwe Aßmann Sebastian Götz	Written Examination 90 min/ Oral Assessment 15 min < 20 participants		4	K1104-MA0020	
6	Digitization and Data Analytics: Architectures, Methods and Consequences	INF	Wolfgang Nagel Sunna Torge	2V/2Ü	english	Summer	Wolfgang Nagel	Written Examination 90 min/ Oral Assessment 20 min < 10 participants		4	K1102-ZIH03	
7	High Performance Computers and their Programming	INF	Wolfgang Nagel Robert Schöne	2V/2Ü	english	Winter	Wolfgang Nagel Robert Schöne	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1102-MA0002	
8	Interactive Information Visualization	INF	Raimund Dachzelt Anke Lehmann	2V/2Ü	german/ english	Summer	Raimund Dachzelt Anke Lehmann	Written Examination	90 min	4	K1104-MA0004	Exercise is a prerequisite
9	Introduction to Mathematical Biology 1	INF	Andreas Deutsch Lutz Bruschi	2V/1Ü	english	Winter 20/21	Andreas Deutsch Lutz Bruschi	Oral Assessment	30 min	3	K1102-ZIH001	
10	Introduction to Mathematical Biology 2	INF	Andreas Deutsch Lutz Bruschi	2V/1Ü	english	Winter 21/22	Andreas Deutsch Lutz Bruschi	Oral Assessment	30 min	3	K1102-ZIH002	
11	Knowledge Graphs	INF	Markus Krötzsch Maximilian Marx	2V/2Ü	english	Winter	Markus Krötzsch	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1101-MA0024	
12	Machine Learning 1	INF	Björn Andres	2V/2Ü	english	Winter	Björn Andres	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1107-MA0060	
13	Machine Learning 2	INF	Björn Andres	2 Seminar	english	Summer	Björn Andres	Oral Presentation	30 min	2	K1107-MA0062S	
14	Numerics with partial differential equations - Advanced concepts	MATH	Oliver Sander Patrick Jaap	3V/1Ü	german/ english	Summer	Oliver Sander	Oral Assessment (Group) 20 min		4	K0108-40545x	only remaining places
15	Numerical Mathematics of Partial Differential Equations	MATH	Oliver Sander Patrick Jaap	3V/1Ü	german/ english	Winter	Oliver Sander	Oral Assessment (Group) 20 min		4	K0108-40543x	only remaining places

16	Particle Methods	INF	Ivo Sbalzarini	2V/2Ü	english	Summer	Ivo Sbalzarini	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1107-MA0006	
17	Scientific Programming - Advanced aspects	MATH	Wolfgang Walter Simon Praetorius	3V/1Ü	german/ english every		Wolfgang Walter Simon Praetorius	Oral Assessment (Group) 20 min		4	K0108-40643x	only remaining places
18	Scientific Visualization	INF	Stefan Gumhold	2V/2Ü	english	Summer	Stefan Gumhold	Written Examination 90 min/ Oral Assessment 20 min < 15 participants		4	K1104-MA0032	
19	Scalable Data Engineering	INF	Dirk Habich Claudio Hartmann	2V/2Ü	english	Winter	Wolfgang Lehner Dirk Habich	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1106-MA0023	
20	User Interface Engineering	INF	Raimund Dachzelt Anke Lehmann	2V/2Ü	german/ english	Winter	Raimund Dachzelt Anke Lehmann	Written Examination 90 min/ Oral Assessment 20 min < 10 participants		4	K1104-MA0024	Exercise is a prerequisite
21	Scientific Arithmetic - Advanced Aspects	MATH	Axel Voigt Marco Salvalaglio	3V/1Ü	english	Summer	Axel Voigt Marco Salvalaglio	Oral Assessment (Group) 20 min		4	K0108-40642x	only remaining places

Modul CMS-EE-SCEE	Case Studies in Energy Economics				Responsible Lecturer:	Prof. Dr. Dominik Möst	M1100-CMS53	
Compulsory Module								
Lehrveranstaltung darf nicht im Modul CMS-SEM gewählt werden. Course cannot be chosen in the CMS-SEM module.								
Course Title	Faculty	Lecturer	SWS Effort	Language	Semester	Examiner	Examination performance	Course number Selma
Case Studies in Energy Economics	Wiwi	Dominik Möst Christoph Zöphel	2 SWS Seminar	english	Summer	Dominik Möst	1. Seminar paper 60 hr 2. oral Presentation 30 min	K1001-EXM040S

Modul CMS-EE-LSEE	Literature Studies in Energy Economics			Responsible Lecturer:	Prof. Dr. Dominik Möst			M1100-CMS54
Compulsory Module								
Lehrveranstaltung darf nicht im Modul CMS-SEM gewählt werden.								
Course Title	Faculty	Lecturer	SWS Effort	Language	Semester	Examiner	Examination performance	Course number Selma
Literaturanalyse zu aktuellen Fragestellungen der Energiewirtschaft / Literature Studies of topics of interest in Energy Economics	Wiwi	Dominik Möst Constantin Dierstein Dirk Hladik	2 SWS Seminar	english	Winter	Dominik Möst	1. Seminar paper 90 hr 2. ungraded Oral Presentation 30 min	K1001-14M054S

Modul CMS-EE-REEP	Resource Economics and Environmental Policy				Responsible Lecturer:		Prof. Dr. Dominik Möst	M1100-CMS55
Compulsory Module								
Course Title	Faculty	Lecturer	SWS Effort	Language	Semester	Examiner	Examination performance	Course number Selma
Resource economics and environmental policy	Wiwi	Dominik Möst Matthew Schmidt	2 V/2Ü/2 SWS Projektbearbeitung	german (with english slides)	Summer	Dominik Möst	1. Written Examination 90 min/ Oral Assessment 45 min <=10 participants 2. Project report 150 hr	K1001-14M040

Modul CMS-EE-EL2		Computational Modelling in Energy Economics Advanced			Responsible Lectur	Prof. Dr. Dominik Möst					M1100-CMS52	
Compulsory Module with Electives Catalogue (Setpoint: 8 SWS)												
Eine Lehrveranstaltung des Katalogs CMS-EE-EL2 kann nicht gewählt werden, wenn diese bereits in einem anderen Pflichtmodul mit wahlpflichtigem Inhalt bzw. in einem Wahlpflichtmodul der Grundlagenausbildung im Masterstudiengang Computational Modeling and Simulation gewählt wurde.												
Please note that any course of the catalogue CMS-EE-EL2 cannot be selected if it has been already selected for another CMS-module.												
Die Modulnote ergibt sich aus dem nach Semesterwochenstunden (SWS) gewichteten Durchschnitt der Noten der Prüfungsleistungen. The module grade is the average of the grades of the individual examinations, weighted by course effort (SWS, lecture hours per week).												
Nr.	Course Title	Faculty	Lecturer	SWS Effort	Language	Semester	Examiner	Examination performance	Duration	Weighting according to SWS	Course number Selma	Notes
1	Advanced Problem Solving and Search	INF	Dr. Lucía Gómez Álvarez Sarah Alice Gaggl	2V/2Ü	english	Winter	Sebastian Rudolph	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1107-MA0056	
2	Advanced User Interfaces	INF	Raimund Dachzelt Anke Lehmann	2V/2Ü	german/ english	Summer	Raimund Dachzelt Anke Lehmann	Written Examination	90 min	4	K1104-MA0001	Exercise is a prerequisite
3	Data Visualization	INF	Raimund Dachzelt Stefan Gumhold	2V/2Ü	german/ english	Winter	Raimund Dachzelt Stefan Gumhold	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1104-CMS03	
4	Design Patterns and Frameworks	INF	Uwe Aßmann Sebastian Götz	2V/2Ü	english	Winter	Uwe Aßmann Sebastian Götz	Written Examination 90 min/ Oral Assessment 15 min < 20 participants		4	K1104-MA0020	
5	Digitization and Data Analytics: Architectures, Methods and Consequences	INF	Wolfgang Nagel Sunna Torge	2V/2Ü	english	Summer	Wolfgang Nagel	Written Examination 90 min/ Oral Assessment 20 min < 10 participants		4	K1102-ZIH03	
6	High Performance Computers and their Programming	INF	Wolfgang Nagel Robert Schöne	2V/2Ü	english	Winter	Wolfgang Nagel Robert Schöne	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1102-MA0002	
7	Interactive Information Visualization	INF	Raimund Dachzelt Anke Lehmann	2V/2Ü	german/ english	Summer	Raimund Dachzelt Anke Lehmann	Written Examination	90 min	4	K1104-MA0004	Exercise is a prerequisite
8	Knowledge Graphs	INF	Markus Kröttsch Maximilian Marx	2V/2Ü	english	Winter	Markus Kröttsch	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1101-MA0024	
9	Machine Learning 1	INF	Björn Andres	2V/2Ü	english	Winter	Björn Andres	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1107-MA0060	
10	Machine Learning 2	INF	Björn Andres	2 Seminar	english	Summer	Björn Andres	Oral Presentation	30 min	2	K1107-MA0062S	
11	Particle Methods	INF	Ivo Sbalzarini	2V/2Ü	english	Summer	Ivo Sbalzarini	Written Examination 90 min/ Oral Assessment 30 min < 10 participants		4	K1107-MA0006	
12	Scientific Visualization	INF	Stefan Gumhold	2V/2Ü	english	Summer	Stefan Gumhold	Written Examination 90 min/ Oral Assessment 20 min < 15 participants		4	K1104-MA0032	
14	User Interface Engineering	INF	Raimund Dachzelt Anke Lehmann	2V/2Ü	german/ english	Winter	Raimund Dachzelt Anke Lehmann	Written Examination 90 min/ Oral Assessment 20 min < 10 participants		4	K1104-MA0024	Exercise is a prerequisite

15	Numerics with partial differential equations - Advanced concepts	MATH	Oliver Sander Patrick Jaap	3V/1Ü	german/ english	Summer	Oliver Sander	Oral Assessment (Group) 20 min		4	K0108-40545x	only remaining places
16	Numerical Mathematics of Partial Differential Equations	MATH	Oliver Sander Patrick Jaap	3V/1Ü	german/ english	Winter	Oliver Sander	Oral Assessment (Group) 20 min		4	K0108-40543x	only remaining places
17	Scientific Programming - Advanced aspects	MATH	Wolfgang Walter Simon Praetorius	3V/1Ü	german/ english	every	Wolfgang Walter Simon Praetorius	Oral Assessment (Group) 20 min		4	K0108-40643x	only remaining places
18	Scientific Arithmetic - Advanced Aspects	MATH	Axel Voigt Marco Salvalaglio	3V/1Ü	english	Summer	Axel Voigt Marco Salvalaglio	Oral Assessment (Group) 20 min		4	K0108-40642x	only remaining places
19	Computational Fluid Dynamics	MW	Jochen Fröhlich Jordi Ventosa Molina	2V/2Ü	english	Winter	Jochen Fröhlich Jordi Ventosa Molina	Written Examination 120 min/ Oral Assessment 20 min < 10 participants		4	K1302-EX3040	
20	Applied Power System Economics	Wiwi	Dominik Möst	4 Seminar	english	Winter	Dominik Möst	1. Seminar paper 2. Oral Presentation		4	K1001-14M607S	