

## **Master Course Computational Engineering**

Ruhr-Universität Bochum Fakultät für Bau- und Umweltingenieurwissenschaften RUHR UNIVERSITÄT BOCHUM



## **EXAMINATION DATES WINTER SEMESTER 2024/25**

Module		Module Coordinator	Date in 2025	Sem.	Perpetual date
WEEK 1					
CE-WP08	Numerical Methods and Stochastics	Prof. Dehling / Prof. Kronbichler	17.02.	2	1 <sup>st</sup> Monday
CE-P04	Scientific Programming	Prof. Vogel	10.00	1	1 <sup>st</sup> Tuesday
CE-P04	Modern Programming Concepts in Engineering	Prof. König	18.02.	1	1 <sup>st</sup> Tuesday
CE-WP04	Advanced Finite Element Methods	Prof. Sauer	19.02.	2	1 <sup>st</sup> Wednesday
CE-WP26	High-Performance Computing on Clusters	Prof. Vogel	20.02.	3	1 <sup>st</sup> Thursday
CE-W10	Scientific C++ Programming (Advanced)	Prof. Vogel	21.02.		1 <sup>st</sup> Friday
WEEK 2					
CE-P02	Mechanical Modelling of Materials	Prof. Balzani	24.02.	1	2 <sup>nd</sup> Monday
CE-WP25	High-Performance Computing on Multicore Processors	Prof. Vogel	25.02.	2	2 <sup>nd</sup> Tuesday
CE-W09	Scientific C++ Programming (Basics)	Prof. Vogel	26.02.	1	2 <sup>nd</sup> Wednesday
CE-P07	Continuum mechanics	Prof. Hackl	07.00	2	2 <sup>nd</sup> Thursday
CE-WP20	Materials for Aerospace Applications	Prof. Bartsch	27.02.	3	2 <sup>nd</sup> Thursday
CE-WP13	Advanced Control Methods for Adaptive Mechanical Systems	Prof. Nestorovic	28.02.	3	2 <sup>nd</sup> Friday
WEEK 3					
CE-P01	Mathematical Aspects of Differential Equations and Numerical Mathematics	Prof. Röhrle	03.03.	1	3 <sup>rd</sup> Monday
CE-WP05	Computational Fluid Dynamics	Prof. Henning	04.03.		3 <sup>rd</sup> Tuesday
CE-WP01	Variational Calculus and Tensor Analysis	Prof. Waimann	Vaimann <b>05.03.</b>		3 <sup>rd</sup> Wednesday
CE-WP03	Adaptronics	Prof. Nestorovic	06.03.		3 <sup>rd</sup> Thursday
CE-WP15	Coupled Multiphysical Modeling and Simulations	Dr. Kozinov	07.03.	3	3 <sup>rd</sup> Friday
WEEK 4					
CE-P03	Computer-based Analyses of Steel Structures	M. Numanovic 10.03		1	4 <sup>th</sup> Monday
CE-WP09	Numerical Simulation in Geotechnics and Tunneling	Prof. Meschke	e <b>11.03.</b>		4 <sup>th</sup> Tuesday
CE-WP17	Numerical Methods for Conservation Laws	Prof. Henning 1		3	4 <sup>th</sup> Wednesday
CE-WP14	Computational Wind Engineering	Prof. Höffer	13.03.	3	4 <sup>th</sup> Thursday
CE-WP12	Computational Plasticity	Prof. Hartmaier	14.03.	2	4 <sup>th</sup> Friday
WEEK 5					
CE-WP02	Optimization Aided Design – Reinforced Concrete	Prof. Mark	17.03.	2	5 <sup>th</sup> Monday
CE-P05	FE Methods in Linear Structural Mechanics	Prof. Sauer	18.03.	1	5 <sup>th</sup> Tuesday
CE-W06	Advanced Constitutive Models for Geomaterials	Prof. Wichtmann	10.02	2	5 <sup>th</sup> Wednesday
CE-WP06	FEM for Nonlinear Analyses of Materials and Structures	Prof. Sauer	19.03.	2	5 <sup>th</sup> Wednesday
CE-WP19	Computational Fracture Mechanics	Prof. Hartmaier	20.03.	3	5 <sup>th</sup> Thursday
CE-P06	Fluid Dynamics	Prof. Höffer	21.03.	2	5 <sup>th</sup> Friday

Module with individual dates		Module Coordinator	Date in 2025	
CE-WP16	Computational Modelling of Membranes and Shells	Prof. Sauer	HW (Bonus points) & OT   TBA	3
CE-W05	Machine Learning – Evolutionary Algorithms	Prof. Glasmachers	04.02. / 13.03. (Resit exam)	2
CE-WP21	Quantum Computing	Prof. Vogel	by arrangement, by March 2025 at the latest	3

<sup>\*</sup> The submission deadlines for the Homework (HW) and the oral test (OT) will be announced in the corresponding lecture.

07th October 2024

Subject to change without notice!