



Name: \_\_\_\_\_

Matricule Number: \_\_\_\_\_ Year of Enrollment: 20\_\_\_\_

**New exam regulation valid from winter term 2025/2026!**

1. Semester (Winterterm)					
	CP				
MAF	5	Ordinary Differential Equations (ODE)			
	5	Partial Differential Equations (PDE)			
	5	Algorithms & Programming			
ENG	10	<b>Solid and Structural Mechanics</b>	<b>Fluid Mechanics</b>	<b>Information Technology</b>	<b>Track:</b>
		Linear Solid Mechanics	Fluid Mechanics	Nonlinear Photonics	<b>Date:</b>
		Introduction to FEM	Introduction to FVM	Information Theory	<b>Signature:</b>
CEQ	5	Career Entry Qualifications			
	<b>30</b>				

2. Semester (Summerterm)						
	CP					
MAF	5	Numerical methods für ordinary and partial different equations				
ENG	5	<b>Solid and Structural Mechanics</b>	<b>Fluid Mechanics</b>	<b>Information Technology</b>		
		Nonlinear Solid Mechanics	Turbulent Flows	Pattern Recognition		
CEM	10	<b>Electives – Choose 1-2</b>			<b>Date:</b>	<b>Signature:</b>
		Data-driven material modeling				
		Methods of Uncertainty Analysis and Qualification I				
		Multi-Scale Methods				
		Scientific Software Engineering (Lab)				
		Network Security				
		Quantum Communication Networks				
		Dynamik Optimization (10 CP)				
		Numerische Lineare Algebra (10 CP, German)				
		Multidisciplinary Design Optimization (MDO)				
ECL	5	<b>Elective Class(es)</b>				
		1.			<b>Date:</b>	
					<b>Signature:</b>	
CEQ	5	Career Entry Qualifications				
	<b>30</b>					

3. Semester (Winterterm)				
	CP			
<b>CEM</b>	5	<b>Electives - Choose 1-2</b>	<b>Date:</b>	<b>Signature:</b>
		Nonlinear FEM		
		Advanced FEM (for structures)		
		Introduction to Lattice-Boltzmann-Methods		
		Simulationsmethoden der Partikeltechnik (GER)		
		Deterministic and Stochastic Computations ("Uncertainty" II)		
		Spoken Language Processing ("Pattern Recognition II")		
		Computer Network Engineering		
		Algorithms for Solving the Euler and Navier Stokes Equations		
		Statistical methods: Optimality and high dimensionality (10 CP)		
<b>ECL</b>	10	<b>Elective Class(es)</b>		
		1.	Date:	
			Signature:	
		2.	Date:	
			Signature:	
<b>PRO</b>	15	Research Project		
	<b>30</b>			

4. Semester (Summerterm)		
	CP	
<b>MTH</b>	<b>30</b>	Master Thesis

Additional Courses
1.
2.
3.
4.
5.

**Notes:**

MAF courses are compulsory and do not require signatures

The courses in the chosen engineering track are compulsory and not interchangeable!