

Study Plan Overview

1. Semester (WS)	2. Semester (SS)	3. Semester (WS)	4. Sem. (SS)
Tensor Calculus FG 1.2 (PM; 7/4/210)	Finite Element Method Foundation FG 1.2 (PM; 7/4/210)	Nonlinear Finite Element Method FG 1.2 (PM 7/4/210)	Master-Thesis (30/-/900) Modul 9
Continuum Mechanics FG 1.3 (PM; 7/4/210)	Thermodynamics of Materials FG 1.2 (PM; 7/4/210)	Elective Courses (WPM; 5/4/150)	
Introduction to Numerical Methods FG 1.1 (PM; 7/4/210)	Elective Courses (WPM; 5/4/150)	Elective Courses (WPM; 5/4/150)	
Computer Languages for Engineers FG 2.6 (PM; 5/4/150)	Elective Courses (WPM; 5/4/150)	Elective Courses (WPM; 5/4/150)	
Testing of Metallic Materials FG 2.7 (PM; 5/4/150)	Elective Courses (WPM; 5/4/150)	Soft Skills I (WM; 4/3/120)	
		Soft Skills II (WM; 4/3/120)	
Module (CR/SWS/work load=CR*30h)			
5 (31/20/930)	5 (29/20/870)	5 (30/22/900)	- (30/-/900)
<u>Elective Courses</u>			
	2. Semester (SS)	3. Semester (WS)	
Fächergruppe 1 (FG 1): Mathematisch-naturwissenschaftliche Grundlagen			
1.1 Mathematik	Advanced Numerical Methods	Parallel Computing	
1.2 Mechanik	-	Computational Inelasticity	
1.3 Computational Mechanics	FEM - Coupled Problems	FEM - Multiphase Materials	
Fächergruppe 2 (FG 2): Fachspezifische Grundlagen / Anwendungen			
2.1 Abfallwirtschaft	-	Simulation of Landfill Bodies	
2.2 Bodenmechanik/Geotechnik	Geotechnics Project with Lab	Modeling and Numerical Simulation of Geotechnical Problems	
2.3 Informatik	Advanced Computer Architecture	CSCW and Software Engineering	
2.4 Massivbau	Design of Concrete Structures	Pre-stressed Concrete	
	Computer Supported Design Processes in Distributed Environments	Finite Element Method Modeling Concrete Structures	
2.5 Stahlbau	Finite Element Method: Modeling in Steel Structures	Finite Element Method Design of Structural Connection	
2.6 Statik	CAD in Civil Engineering	Analysis of Structures	
2.7 Materialtechnik / Umformtechnik	Fatigue and Lifetime of Machine Elements	Schwingungsanalyse mit Matlab	
2.8 Umwelttechnik / CFD	Computational Fluid Dynamics		
2.9 Werkstofftechnik	--	Technische Schadensanalyse	
	Werkstoffauswahl II	Werkstoffauswahl I	
2.10 Mechatronik	Advanced Modeling and Simulation Techniques	--	