Modulname	**Finite Element Method**	
Modulverantwortlicher/ Modulverantwortliche	Prof. Dr. Hendrike Raßbach	
Qualifikationsziele	On completion of this course, the students should have some basic knowledge on the method of finite elements and they should be able to build up simple FEM-models. Some examples will be solve with the program ANSYS. The students can critically judge and interpret results.	
Modulinhalte	Basic Ideas of the Method of Finite Elements Different Finite Elements for Structural Mechanics The Applications of FEA Basic Procedure Creating a FEA-Model Accuracy, Reliability, Errors Possibilities for Verification Structure of FEAPrograms ANSYS – The Layout of the GUI Goal and StartingPoint of a FE-Analysis Reasonable Simplifications Coupling of FEA and CAD-Programs Examples	
Lehrformen	Vorlesung (1 SWS) Praktikum (3 SWS)	
Voraussetzungen für die Teilnahme	fundamentals of technical mechanics	
Literatur/multimediale Lehr- und Lernprogramme	Adams, V., Askenazi, A.; “Building Better Products with Finite Element Analysis”, On Word Press, 1999, SAN 694-0269 Saeed Moaveni; “Finite Element Analysis”; Pearson Education, 2003, ISBN 0-13-191857-5 Supporting documents: scriptum	
Lehrbriefautor	keiner	
Verwendbarkeit	Pool International (English Lectures for Contact students) F MB PI	
Arbeitsaufwand/Gesamtworkload	Präsenzzeit 60 h + Vorbereitung 90 h = 150 Stunden = 5.0 Credit Punkte	
ECTS und Gewichtung der Note in der Gesamtnote	5	1
Leistungsnachweis	written examination and work with program ANSYS: 120 min	
Semester	1. Fachsemester	
Häufigkeit des Angebots	annually in the winter semester, 2019 in summer semester	
Dauer	1 Semester	
Art der Lehrveranstaltung (Pflicht, Wahl, etc.)	anually in winter semester	
Besonderes		