

MODULE DESCRIPTION		Last up-date: 20.02.2006		
Abbr.	Description	Lecturer		
MA_W10	Structural Dynamics	Zhang		
Position in the study progress, time extent, credit points				
4 SWH, 6 CP				
Applicability, module type, offer frequency				
Master of Science, optional obligatory module, yearly offer				
Admission requirements for examination				
Approved home works				
Achievement and examination forms, requirements, work expenditure, credit points				
Form of achievement	Requirements	Work expenditure	CP	Mark weights
Presence, self-study	Approved home works	130 h		
Elaborations		50 h	-	-
Examination	Examination (2 h)		6	100 %
Sum		180 h	6	100 %
Which technical, methodical and practical contents will be conveyed?				
<ul style="list-style-type: none"> • Kinematics and kinetics of a system of masses • Central and oblique impact of two rigid bodies • d'Alembert's principle, Lagrange's equations 2. kind • Undamped and damped vibrations of a single mass • Undamped and damped vibrations of multiple masses • Vibrations of bars, rods and beams 				
Which technical/methodical competence and key qualifications should be gained?				
<p>This course deals with fundamental topics of structural dynamics. The students should learn the methods for describing the kinematics and kinetics of a system of masses, the impact of two rigid bodies, undamped and damped vibrations of single mass and multiple masses, as well vibrations of bars, rods and beams.</p>				