MODULE DESCRIPTION

Abbr.	Description	Lecturer
BA_G3	**Engineering Mechanics I**	**Zhang**

Position in the study progress, time extent, credit points	Module responsible
1. Semester, 4 SWH, 6 CP	Zhang

Applicability, offer frequency

Study program:	Bachelor	Module type:	Obligatory	Offer:	Yearly

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		130 h		
Home works	Written elaborations. Approved home works.	50 h		
Examination	Examination, duration 2h			100 %
	Sum	**180 h**	**6**	**100 %**

Which technical, methodical and practical contents will be conveyed?

- Introduction to statics of rigid bodies
- Definition of forces and basic laws in statics of rigid bodies
- Plane central force systems
- General plane central force systems
- Centroid of parallel forces, centroid of masses, centroid of areas and centroid of lines
- Bearing reactions
- Forces in members of trusses
- Internal forces in beams and frames
- Internal forces in arched girders
- Adhesion and friction

Which technical/methodical competence and key qualifications should be gained?

The students should learn in EM 1 the fundamentals and the methods in statics of rigid bodies. This includes the definition and meaning of forces, basic laws in statics of rigid bodies, force systems, equilibrium conditions, determination of bearing reactions, and methods for the determination of internal forces in trusses, beams, frames and arched girders. In addition, basic knowledge to adhesion and friction is conveyed.