UNIVERSITÄT ZU LÜBECK

TECHNISCHE HOCHSCHULE LÜBECK

Joint Master´s program Biomedical Engineering

X4M 2345 Specialized Biomechanics	**Lecture, 1 SWS** **Computer Lab 1 SWS**
Workload:	see related module
Credit-points:	3
Lecturer:	Robert Wendlandt
Language:	English
Curriculum:	Master`s program Biomedical Engineering, 2nd Semester
Prerequisites according to examination regulations	None
Recommended prerequisites:	Basic knowledge in Biomechanics, Linear algebra
Learning outcomes:	Basis regulatory requirements for orthopaedic medical devices. Theoretical and practical knowledge on simulation methods in biomechanics.
Content:	• Mechanical testing of artificial joints and fracture plates • Motion analysis • Simulation of rigid body systems • Theory and application of finite element analysis
Literature:	Hibbeler, R.. Mechanics of Materials. Prentice Hall, 2010 Madenci, E., Guven, I.: The Finite Element Method and Applications in Engineering Using ANSYS. Springer, 2006
Examination:	Written examination and project (Portfolio)
Teaching methods:	Board, LCD-projector, models, Computer Lab