

COURSE DETAIL

STRUCTURAL DYNAMICS

Country

Germany

Host Institution

Technical University Berlin

Program(s)

Technical University Berlin

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Engineering Civil Engineering

UCEAP Course Number

103

UCEAP Course Suffix**UCEAP Official Title**

STRUCTURAL DYNAMICS

UCEAP Transcript Title

STRUCTURAL DYNAMICS

UCEAP Quarter Units

5.50

UCEAP Semester Units

3.70

Course Description

This course covers the following topics: definitions, notations and repetition of basic principles of mechanics; elastic body in general spatial movement, theoretical foundations for the modeling elastic bodies in MKS programs; fundamentals for solving dynamic tasks using FEM or other discretizing methods; model reduction; algorithms for solving the large-scale general matrix eigenvalue problem; response spectra method; attenuation; measurement of modal parameters (modal analysis) and model updating; controllability and observability. It is a combination of lecture and an exercise class going over problems.

Language(s) of Instruction

German

Host Institution Course Number

0530 L 279

Host Institution Course Title

STRUKTURDYNAMIK

Host Institution Course Details

Host Institution Campus

FAKULTÄT V VERKEHRS- UND MASCHINENSYSTEME

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mechanik

Course Last Reviewed

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