

# 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

STRUCTURAL DYNAMICS

## Host Institution Campus

FAKULTÄT V VERKEHRS- UND MASCHINENSYSTEME

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Mechanik

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