

# COURSE DETAIL

## MECHANICAL VIBRATIONS

**Country**

Sweden

**Host Institution**

Lund University

**Program(s)**

Lund University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mechanical Engineering Engineering

**UCEAP Course Number**

113

**UCEAP Course Suffix****UCEAP Official Title**

MECHANICAL VIBRATIONS

**UCEAP Transcript Title**

MECH VIBRATIONS

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course presents the theoretical foundation of mechanical vibrations in multi-dimensional systems. The course covers applications that are directed towards machine and structural dynamics, vibrations in n-degree of freedom systems, damping mechanisms, gyroscopic forces, modal analysis (classical normal modes and complex modes), transfer functions, transient response, continuous systems, vibration damping, and vibration isolation. Applications include the numerical analysis of mechanical vibrations.

## Language(s) of Instruction

English

## Host Institution Course Number

FMEN11

## Host Institution Course Title

MECHANICAL VIBRATIONS

## Host Institution Campus

Lund University

## Host Institution Faculty

Engineering

## Host Institution Degree

## Host Institution Department

Engineering- Mechanics

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