COURSE DETAIL

MODERN EXPERIMENTAL MECHANICS
Country Sweden
Host Institution Lund University
Program(s) Lund University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Mechanical Engineering Engineering Civil Engineering
UCEAP Course Number 179
UCEAP Course Suffix
UCEAP Official Title MODERN EXPERIMENTAL MECHANICS
UCEAP Transcript Title MOD EXPERIMNTL MECH
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course introduces the techniques and possibilities in modern experimental mechanics for the characterization of the mechanics of solid, porous, and granular materials using a range of physics techniques and full-field analyses. The course pays particular attention to full-field analyses using optical methods (with a focus on digital image correlation), x-ray and neutron imaging and scattering approaches, and wave propagation. The course includes both theoretical and practical parts, and involves study visits to MAX IV and ESS. Inverse analyses and digital image/signal processing in the context of experimental analyses are also covered.

Language(s) of Instruction
English

Host Institution Course Number
FHLN10

Host Institution Course Title
MODERN EXPERIMENTAL MECHANICS

Host Institution Course Details
https://www.solid.lth.se/education/courses/modern-experimental-mechanics-fhln10/

Host Institution Campus
Engineering

Host Institution Faculty

Host Institution Degree

Host Institution Department
Engineering- Solid Mechanics

Course Last Reviewed
2021-2022

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