COURSE DETAIL

THEORETICAL PHYSICS: CLASSICAL MECHANICS
Country Sweden
Host Institution Lund University
Program(s) Lund University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Physics
UCEAP Course Number 152
UCEAP Course Suffix
UCEAP Official Title Theoretical Physics: Classical Mechanics
UCEAP Transcript Title CLASSICAL MECHANICS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

In this course, students get a solid knowledge of Lagrange and Hamilton formulations of classical mechanics with connections to field theory and relativity. The course contains the following: the variation principle and Lagrange's equations; Hamilton's principle; the central force problem with two bodies; motion of rigid bodies; small oscillations; Lagrange formulation of special relativity; Hamilton formalism; Canonical transformations; the Hamilton-Jacobi equation and Poisson brackets; Perturbation theory; and continuous systems and fields.

Language(s) of Instruction
English

Host Institution Course Number
FYTN16

Host Institution Course Title
Theoretical Physics: Classical Mechanics

Host Institution Course Details
https://www.lunduniversity.lu.se/lubas/i-uoh-lu-FYTN16

Host Institution Campus

Host Institution Faculty
Science

Host Institution Degree

Host Institution Department
Astronomy and Theoretical Physics

Course Last Reviewed
2021-2022

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