

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 Campus

Host Institution Faculty

Science

Host Institution Degree

Host Institution Department

Astronomy and Theoretical Physics

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