

## COURSE DETAIL

### ELECTROMAGNETISM: THEORETICAL PHYSICS

**Country**

Sweden

**Host Institution**

Lund University

**Program(s)**

Lund University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Physics

**UCEAP Course Number**

130

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

ELECTROMAGNETISM: THEORETICAL PHYSICS

**UCEAP Transcript Title**

ELECTROMAGNETISM

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

The course covers electromagnetism based on Maxwell's equations and the Lorentz force. Students learn how to apply and solve Maxwell's equations, the potential formulation, how to treat polarization and magnetization phenomena, energy transport, boundary conditions, electromagnetic waves, basic vector analysis, and related integral theorems needed to solve electromagnetic problems.

## Language(s) of Instruction

English

## Host Institution Course Number

FYTB13

## Host Institution Course Title

ELECTROMAGNETISM- THEORETICAL PHYSICS

## Host Institution Course Details

<https://www.lunduniversity.lu.se/lubas/i-uoh-lu-FYTB13>

## Host Institution Campus

Lund

## Host Institution Faculty

Science

## Host Institution Degree

## Host Institution Department

Theoretical Physics

## Course Last Reviewed

2023-2024

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