# COURSE DETAIL

| ELECTROMAGNETISM: THEORETICAL PHYSICS |
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| **Country**<br>Sweden |
| **Host Institution**<br>Lund University |
| **Program(s)**<br>Lund University |
| **UCEAP Course Level**<br>Upper Division |
| **UCEAP Subject Area(s)**<br>Physics |
| **UCEAP Course Number**<br>130 |
| **UCEAP Course Suffix** |
| **UCEAP Official Title**<br>ELECTROMAGNETISM: THEORETICAL PHYSICS |
| **UCEAP Transcript Title**<br>ELECTROMAGNETISM |
| **UCEAP Quarter Units**<br>6.00 |
| **UCEAP Semester Units**<br>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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