

COURSE DETAIL

ELECTRICITY AND MAGNETISM

Country

Japan

Host Institution

Tohoku University

Program(s)

Engineering and Science

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Physics Electrical Engineering

UCEAP Course Number

110

UCEAP Course Suffix**UCEAP Official Title**

ELECTRICITY AND MAGNETISM

UCEAP Transcript Title

ELECTRICITY&MAGNETM

UCEAP Quarter Units

3.00

UCEAP Semester Units

2.00

Course Description

This course discusses the basic theories and analysis methods for electromagnetic fields in vacuum and dielectric/magnetic media: Maxwell's equations, plane wave and its reflection/transmission, dielectric/magnetic media and their boundary conditions, etc. It also explores the basic principles and analysis methods for electromagnetic induction and radiation: Faraday's law, radiation from electric dipole, etc.

Language(s) of Instruction

English

Host Institution Course Number

N/A

Host Institution Course Title

ELECTRICITY AND MAGNETISM

Host Institution Course Details

https://uceap.sharepoint.com/:w:/s/DocumentLibrary/IQAZrxUKnD_ST69AoG3BPevrAcvf...

Host Institution Campus

Tohoku University

Host Institution Faculty

Host Institution Degree

Host Institution Department

JYPE

Course Last Reviewed

2025-2026

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