

COURSE DETAIL

INTRODUCTION TO PHYSICAL ELECTRONICS

Country

Korea, South

Host Institution

Korea Advanced Institute of Science and Technology (KAIST)

Program(s)

Korea Advanced Institute of Science and Technology, KAIST

UCEAP Course Level

Lower Division

UCEAP Subject Area(s)

Electrical Engineering

UCEAP Course Number

33

UCEAP Course Suffix**UCEAP Official Title**

INTRODUCTION TO PHYSICAL ELECTRONICS

UCEAP Transcript Title

INTRO PHYS ELECTRNC

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

This course introduces the fundamental properties and characteristics of solid-state materials and structures used in modern semiconductor devices and integrated circuit (IC) technologies.

Topics include Solid-State Electronics and applications, Crystal structure of solids, Introduction to quantum mechanics, Introduction to the quantum theory of solids, Semiconductor in equilibrium, Carrier transport phenomena, Excess carriers in semiconductors, The pn junction.

Language(s) of Instruction

English

Host Institution Course Number

EE.20011

Host Institution Course Title

INTRODUCTION TO PHYSICAL ELECTRONICS

Host Institution Course Details

<https://erp.kaist.ac.kr/com/lgin/SsoCtr/initExtPageWork.do?link=estblSubjt>

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed

2025-2026

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