

COURSE DETAIL

ELECTRIC CIRCUITS

Country

Korea, South

Host Institution

Seoul National University

Program(s)

Seoul National University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Electrical Engineering

UCEAP Course Number

103

UCEAP Course Suffix**UCEAP Official Title**

ELECTRIC CIRCUITS

UCEAP Transcript Title

ELECTRIC CIRCUITS

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

This course covers working principles and models of basic circuit components such as resistor, capacitor, inductor, diode, and transistor. Students learn to analyze the complex electric circuit problems composed of multiple circuit components using abstractions and various mathematical methods and gain an understanding of the working principles of various logic, memory, and amplifier circuits. The course provides students the ability to understand/modify/write LabView code that can be used to test electric circuits. Topics include Network analysis, Node voltage, Mesh current, Superposition, Impedance, RLC circuit, Diode, MOSFET, Amplifier, Logic and memory devices, Bipolar junction transistor (BJT), BJT small signal model, Lab work via LabView.

Language(s) of Instruction

English

Host Institution Course Number

445.325

Host Institution Course Title

ELECTRIC CIRCUITS

Host Institution Course Details

<https://sugang.snu.ac.kr/>

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed

2025-2026

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