

# COURSE DETAIL

## MICROELECTRONICS WITH DESIGN AND MANUFACTURING 3

**Country**

United Kingdom - Scotland

**Host Institution**

University of Edinburgh

**Program(s)**

University of Edinburgh

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Electrical Engineering

**UCEAP Course Number**

137

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

MICROELECTRONICS WITH DESIGN AND MANUFACTURING 3

**UCEAP Transcript Title**

MICROELECTRONICS 3

**UCEAP Quarter Units**

8.00

**UCEAP Semester Units**

5.30

## Course Description

This course provides students with an in-depth understanding of electronic device operation as well as the fabrication techniques used in their manufacture, and it introduces students to the design and manufacture of electronic products and the importance of quality control and design for manufacture. It covers the basics of semiconductor physics, the important building blocks of the p-n junction and MOS capacitor, and the operation and fabrication of MOS and bipolar transistors. Students are also introduced to electronics industry relevant materials relating to product design and manufacture as well as the important developments that are driving future technologies.

### Language(s) of Instruction

English

### Host Institution Course Number

ELEE09034

### Host Institution Course Title

MICROELECTRONICS WITH DESIGN AND MANUFACTURING 3

### Host Institution Campus

Edinburgh

### Host Institution Faculty

School of Engineering

### Host Institution Degree

### Host Institution Department

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