B37XO Electronics and Circuits (Ocean U)

COURSE DETAILS
Course Code: B37XO
Full Course Title: Electronics and Circuits (Ocean U)
SCQF Level: 7
SCAF Credits: 15
Available as Elective: No

DELIVERY LEVEL
Undergraduate: Yes  Postgraduate Taught: No  Postgraduate Research: No

Additional Information:
Ocean U equivalent of HWU course B38EB

COURSE AIMS
To investigate circuit theory, circuit design and analysis methods

LEARNING OUTCOMES – SUBJECT MASTERY
Understanding the basic theory, knowledge, and analytical methods in the field of circuit electronics

Awareness of the difference between discrete device and integrated circuit

Ability to design circuits according to given requirements

Ability to verify relevant circuit theory through experiments

Understanding common flip-flops feature expressions, state transition tables and stimulus tables

LEARNING OUTCOMES – PERSONAL ABILITIES
Ability to practice and innovate

Ability to think and solve problems independently

Rigorous and serious scientific attitude to problem solving

Ability to think and solve problems working in groups

SYLLABUS
Basic concepts and basic laws of circuit

Circuit analysis method

Circuit transient analysis

Sinusoidal AC circuit

Semiconductor diode, bipolar junction transistor

Basic amplifier circuit

Integrated Operational Amplifier

Feedback in Electronic Circuits

Experimental work

COURSE RELATIONSHIPS

N/A

LOCATION AND ASSESSMENT METHODS

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