

The Hong Kong University of Science and Technology

UG Course Syllabus (Simplified version uploading to SENG website)

Course Title: Introduction to Integrated Circuits and Systems

Course Code: ELEC 3400

Number of Credits: 4

Prerequisite(s): ELEC 2400.

Instructor's Name: Howard LUONG

Instructor's Email: eeluong@ust.hk

Course Description

This course presents an overview, applications, fundamentals and design flow of the state-of-the- art integrated circuits (IC) and systems. Course contents include fabrication process; diodes, bipolar transistors and MOS transistors and modes of operations; and fundamental of analog, digital and mixed-signal IC design.

Assessments:

Homework	15%
Laboratory	20%
Mid-Term Examination	25%
Final Examination	40%

Required Texts and Materials

Textbook(s): R. Jaeger and T. Blalock, *Microelectronic Circuit Design*, 6th Edition, McGraw Hill, 2023

Reference Books/Materials:

A.S. Sedra and K.C. Smith, *Microelectronic Circuits*, 5th ed., New York, Oxford University Press, 2004.