Course Title: Digital Electronics Lab.  
Prerequisite: Digital Electronics  
Text Book: Lab Manual for Digital electronics  
Credit Hours: 1  
Level 4th Year

Course Goals:
To deal with digital integrated circuits its structure, function, design with certain applications

Time Schedule:
Duration: 16 weeks
Lectures: None
Tutorial: None
Laboratories: 3 hours / week

Objectives:
At Completing this module the student should be able to:
- Understand the, transistor switch, and logic families of TTL and CMOS.
- Understand how to use and implement ADC and DAC, and how to design the timing circuits.

Course Outline:
Experiment No.1: The Transistor Switch.
Experiment No.2: TTL Logic Specifications.
Experiment No.3: Monostable and Astable Multivibrators.
Experiment No.4: Comparator and Schmitt Triggers.
Experiment No.5: A/D and D/A Converters.
Experiment No.6: IC Timers.
Experiment No.7: Sweep - Voltage Waveforms.
Experiment No.8: Oscillators Made from Inverters.
Experiment No.9: Sample-and-Hold Circuit.
Experiment No.10: Interfacing TTL and CMOS Gates.

Mode of Assessment
Reports & Participation 30 %
Midterm Exam 30 %
Final Exam 40 %

References: