Module Title:	**Digital System 1** – Semester 7
Academic year:	2009 – 2010
Credit Value:	4 - Mandatory
Pre- requisites:	None
Assessment:	70% Final Exam, 30% Continuous Assessment (CA)
Aims	To bring to the student the knowledge and skills to understand and design digital circuits- from state machine design to their implementation using flip flops. Real world effects like setup and hold times issues are examined.
Module Content	• Boolean Switching Theory; • Synchronous State Machine Design; • Electrical Characteristics; • Asynchronous State Machines.
Intended Learning Outcomes:	**On successful completion of the module the student will be expected to be able to:** 1. Describe, analyse, design circuits using Boolean switching functions; 2. Describe, analyse, design, construct and debug synchronous states machine; 3. Implement state machines in a variety of hardware and software architectures; 4. Describe, analyse and design solutions for problems associated with the electrical characteristics of logic gates; 5. Describe and analyse the operation of simple asynchronous state machines.