SU DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
SYLLABUS (Tentative)
COSC 250 Microcomputer Organization

Description: A course on the organization and internal behavior of a microcomputer. Three hours lecture and two hours lab per week.

Objectives: To study the inner workings of a digital computer system. To study the architecture of various microprocessors.

Prerequisite: COSC 117 or COSC 120.


“A Microcomputer Organization Class Notes and Lab Manual,” by Dean DeFino and Asif Shakur; 2006. (Available only through SU’s Bookstore) SU In-house Publication, may also be required. Please contact the SU bookstore or your Instructor.

Unit 1 Combination Logic

Unit 2 Sequential Logic and CPU Organization
Sequential circuits (flip flops). Resistors and counters. Memory organization and types of memory components. Organization of various microprocessors.

Unit 3 CPU Design, Machine-level Instructions and Assembly Language
CPU architecture, Machine instructions. Wait states and machine cycles.

Tests 1.0

EVALUATION
Homework 15%
Tests 65%
Lab 20%

14.0

NOTE: ONCE A STUDENT HAS RECEIVED CREDIT, INCLUDING TRANSFER CREDIT, FOR A COURSE, CREDIT MAY NOT BE RECEIVED FOR ANY COURSE WITH MATERIAL THAT IS EQUIVALENT TO IT OR IS A PREREQUISITE FOR IT.

DDF/jlh 7/2016