COMP 3350, Computer Organization and Assembly Language Programming

Credit hours: 3 lecture
Contact hours: 3 lecture

Catalog Description: Stored Program Computers, hardware and software components; data representation, instruction sets, addressing modes; assembly language programming; linkers, loader, and operating systems.

Prerequisites: ELEC 2200 or ELEC 2210
Corequisites: None

Required Course (CSCI, SWEN, WIRS)

Instructor or Course Coordinator: Dr. Jeff Overbey

Required Textbook

Course Outcomes
The student will be able to
• understand computer organization and fundamental computer architecture.
• understand data representation techniques, addressing modes, instruction sets, interfaces, and interrupts.
• apply basic knowledge of digital logic circuits to computer organization.

Topics Covered
• Introduction to microprocessors (3 hours)
• Software architecture of microprocessor (6 hours)
• Machine language programming (6 hours)
• Software development tools (3 hours).
• Instruction set (9 hours).
• Memory interface (6 hours).
• I/O interface (6 hours).
• Interrupts (3 hours)
• Exams (3 hours)

Course Requirements
• Homework Assignments (40%)
• Midterm Exams (35%)
• Final Exam (30%)

Syllabus prepared: Spring 2016