CSCI 2160  

Assembly Language

Credit Hours: 4
Contact Hours: 4
Course Coordinator: Gene Bailey
Text(s): None

Catalog Description:

The assembly language of a modern computer including the instruction set, pseudo-operations, macros, and conditional assembly, object code, use of dumps, coding and linkage conventions, addressing techniques, and use of the assembler. Laboratory use of the computer in designing, coding, debugging, and executing programs is an integral part of the course.

Prerequisite(s): CSCI 1260 and CSCI 2150

CS: REQUIRED
IS: MAJOR ELECTIVE
IT: MAJOR ELECTIVE

Course Outcomes:

Understand the internal (to the computer) representation of information - ETSU Outcomes 3, CS-1; ABET Outcomes c, CS-k

Understand what lies "behind" the high level programming languages and the operating system user interface - ETSU Outcome 3; ABET Outcomes CS-j, i

Write assembly language programs that will perform File I/O, binary arithmetic, and string manipulations - ETSU Outcomes 5c, CS-1, CS-2; ABET Outcomes c, CS-j, CS-k

Write assembly language functions that can be linked to programs in assembly and higher level languages - ETSU Outcomes 4b, 5c, CS-1, CS-2; ABET Outcomes c, CS-j, CS-k

Describe the relationship between code, data, and stack segments and program development - ETSU Outcomes 3, CS-1, CS-2; ABET Outcomes c, CS-j, CS-k

Understand how the use of arguments in higher level languages are handled at the assembly level - ETSU Outcomes 3, CS-1, CS-2; ABET Outcomes c, CS-j, CS-k
Major Topics:

ASCII codes
Segment:Offset addressing
Instruction Addressing and Execution
Keyboard Operations
Binary instructions
Table processing
Disk storage
Reading/Writing files
Macros
Linking subprograms