Course Title: Mainframe Assembler Language Programming

Course Description:
Learn the basics of the Mainframe Assembler Language

Course Prerequisite(s):
Introduction to Mainframe Computing I and II, COBOL Programming or experience with a procedural language

Course Objectives:
Demonstrate function and structure of the Assembler Language, Operating System Macros and Services.

Textbook(s):
Murach’s MVS Assembler Language

Next Class Possibilities:
Mainframe Advanced Assembler Language Programming, DB/2 Fundamentals for Z/OS, Mainframe Hardware and Operating System

Lesson Plan – by week or session
Session 1: Assembler Language Overview
- Language Hierarchy
- Program Components
Session 2: Memory Usage
- Hardware Components
- Numbering Systems and Conversions
- Data Representation
Session 3: Addressing and Instructions
- Main Storage Addressing
- Machine Instruction Formats
- Assembler Language Formats
Session 4: Program Development
- Assembler Language Syntax
- The Assemble Process
Session 5: Decimal Arithmetic
- Type Conversions
- Arithmetic Operations
- Editing Decimal Data
Session 6: Data Manipulation Instructions
- Load and Store Instructions
- Move Instructions
Session 7: Comparing and Branching
- Decision Making
- Compare Instructions
- Branching