

**Duration:** 5 days

**Course Number:** ISI-COB-01

## **Description**

This course introduces students to the skills required to write COBOL programs. The course starts with an overview of structured programming concepts. The four divisions of a COBOL program and their functions are reviewed in detail. File processing, program looping, conditional program statements, and table processing are covered in detail. Development of clear and understandable program designs is stressed along with building maintainable programs.

Upon successful completion of the course, students will be able to:

- Design and develop structured programs.
- Define variables and build program code.
- Define / discuss the internal descriptions of data in a COBOL program.
- READ and WRITE files.
- Use IF, EVALUATE, and PERFORM statements.
- Use arithmetic statements.
- Use explicit scope (END-) terminators.
- Load and process COBOL tables.
- Analyze the File-Status field
- Analyze a program abend.
- Debug a COBOL program's logic via displays and walk-throughs.
- Use COBOL intrinsic functions.
- Code COBOL calls to the Language Environment (LE).
- Use the COBOL Internal Sort facility.

A series of written and workshops will be used to reinforce the classroom education.

## **Audience**

The course is for entry-level students who must understand, design, code, test, and debug COBOL programs.

## **Prerequisites**

- TSO/ISPF, or equivalent experience.
- No previous COBOL experience is required.

## Course Agenda

### Day 1

Introduction to Structured Techniques

COBOL Program Components

- Identification Division
- Environment Division
- Data Division
- Procedure Division
- Program Examples

Input / Output Operations

- Environment Division - SELECT and ASSIGN
- Procedure Division - FD and Record Definition
- Procedure Division - OPEN/CLOSE, READ/WRITE

Program Control Statements

- The Family of PERFORMs
- End Processing Statements - GOBACK
- Conditional Statements - IF, EVALUATE
- Statement Terminators (-END)
- Sub Program Access - CALL statement

Hands-on Workshops

### Day 2

Program Code

- Data Storage Types
- Character and Numeric Moves
- Edit Picture Characters
- Special Features - Reference Modification, Figurative Constants,
- Special Registers, INITIALIZE, SET, STRING, COPY
- Arithmetic Statements - Add, Subtract, Multiply, Divide, Compute

Hands-on Workshops

---

## Course Agenda (continued)

### Day 3

Table Processing

- Table Definitions
- Search Modes - SEARCH, SEARCH ALL
- Subscripting vs. Indexing

Hands-on Workshops

### Day 4

Additional Topics

- Internal SORT
- Debugging Abends
- Intrinsic Functions
- File Status
- Calls to LE

Hands-on Workshops

### Day 5

Hands-on Workshops