

Introduction to Programming with SAS/IML Software

Duration: 1.0 days

This course teaches you how to use the IML procedure via the programming language. You will benefit from this course if you plan to use SAS/IML for matrix manipulations or if you plan to use it to implement statistical, econometric, or operations research methods.

Learn how to

- explicitly assign values to a new matrix create a matrix from a SAS data set and
- create a data set from a matrix control which rows and columns are read from (or written to) a data set
- use matrix operators and functions in assignment statements
- use IML commands to control the programming environment
- use subscript operators to summarize and subset matrices
- use iterative and conditional processing to control program flow
- write, store, and retrieve IML modules

Who should attend

SAS programmers, statisticians, econometricians, engineers, or others who manipulate data using matrix operators and matrix algebra

Prerequisites

Before attending this course, you should

- have completed the *SAS Programming I: Essentials* course or understand the material within
- possess an understanding of elementary matrix algebra or linear algebra concepts and operations, including matrix dimensions, matrix addition and multiplication, matrix inversion, and scalars.

Course Contents

SAS/IML Matrices

- types of matrices
- assigning values to matrices

SAS/IML Language

- control statements
- command statements
- call statements and functions
- assignment statements and operators

Subscripting Operations

- selecting submatrices
- performing row and column reduction

Processing Data Sets

- creating matrices from data sets
- creating data sets from matrices

Developing a SAS/IML Program

- creating modules as subroutines and functions
- iterative processing
- conditional processing

SAS/IML Storage Features

- storing modules and matrices
- loading modules and matrices

Managing Memory and Workspace

The IML Module Library (IMLMLIB)

Classroom Course Materials

Students attend classroom courses in one of our public training centers. You receive a hardcopy of the course notes.