

**Duration:** 3 days

**Course Number:** ISI-CICS-05

## Description

The primary objective of this course is to develop basic CICS applications and access files and/or databases using IBM's MQ Series Queuing APIs. CICS and/or Java programmers need to know how to develop e-business client applications using the MQ Series APIs. Upon successful completion of this course, students should be able to:

- Design and develop application programs for CICS using the MQ Series APIs.
- Describe the basic architectural concepts of messaging and queuing.
- Describe the four types of messages used by MQSeries.
- Explain the function of the Queue Manager.
- Explain how the Queue Manager handles message queues.
- Describe how a client and server communicate via MQSeries queues.
- Describe the function of the Queue Manager in the Server Machine.
- List each of the eleven most important MQI calls and their functions.
- Explain the function of the MQSeries client for communicating via TCP/IP.
- Describe how the MQM is implemented in the mainframe CICS environment.
- Code several basic client and server transaction programs.

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

## Audience

Java and/or CICS programmers who want to learn how to develop eCommerce applications using CICS as a Web Server and MQSeries as the messaging and queuing service. Developers who want to write Web-enabled applications using CICS and MQSeries queuing service on the mainframe.

## Prerequisites

- Java Programming using VisualAge for Java, *or*
- CICS application programming experience and Java application programming experience.

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## Course Agenda

Introduction to MQSeries Products

Using CICS resources with MQM

How to Place a Message on the Queue and Get a Reply From Another Queue

Three Different Clients for MQSeries

MQSeries Clients for Java Support

Writing Programs for MQSeries Clients

Writing Application Programs for CICS and MQSeries Servers

The MQSeries Java Programming Interface

Setting up the MQEnvironment

Accessing Queues and Processes

CICS Message Handling

CICS Exception handling

Compiling MQSeries Java Programs

Connecting CICS Communications to MQSeries Products