



MICROSOFT TRAINING

Embedded Systems Classes

Master embedded systems design and programming. Develop firmware and hardware interfaces for real-world IoT devices.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

-
- Globally Recognized Certification
 - Expert-Led Hands-On Training
 - Flexible Scheduling

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COURSE OVERVIEW

This intermediate-level course on Embedded Systems, leveraging Microsoft technologies, offers a foundational yet practical dive into the world of intelligent devices and the Internet of Things (IoT). Participants will explore key concepts behind designing, developing, and deploying embedded solutions using Microsoft's robust ecosystem. The curriculum is designed to equip learners with the knowledge to connect physical hardware with software logic, laying the groundwork for creating smart, connected systems.

Over the intensive 2-hour session, you will gain exposure to core principles of embedded programming, understanding how to interact with hardware components and integrate them seamlessly into larger systems. This course is particularly beneficial for IT professionals looking to expand their skill set into the rapidly growing IoT and embedded devices sector, offering a clear pathway to applying Microsoft-specific tools and platforms in real-world applications and enhancing their professional value within the tech industry.

Duration	2 hours
Level	Intermediate
Vendor	Microsoft

COURSE CURRICULUM

01 Module 1: Introduction to Microsoft Embedded Systems

- Overview of Embedded Systems and IoT
- Introduction to Microsoft's Role in Embedded Development
- Key Microsoft Embedded Platforms: Windows IoT Core and Azure RTOS (brief overview)
- Understanding Device-to-Cloud Communication Principles

02 Module 2: Basic Embedded Programming with C# and .NET

- Introduction to C# for Embedded Applications
- .NET Micro Framework Concepts (brief)
- Setting up a Basic Development Environment (Visual Studio)
- Simple Input/Output Operations with Simulated Devices

03 Module 3: Connecting to the Microsoft Azure IoT Ecosystem

- Introduction to Azure IoT Hub
- Device Provisioning and Authentication Concepts
- Sending Telemetry Data to Azure IoT Hub (conceptual)
- Receiving Commands from Azure IoT Hub (conceptual)

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **IoT Device Developer specializing in Microsoft Azure IoT solutions**
- > **Firmware Engineer integrating with Windows IoT Core**

> Embedded Systems Integrator for smart edge devices

FREQUENTLY ASKED QUESTIONS

Q: What specific Microsoft development tools and platforms will I get hands-on experience with in this 2-hour course?

While this 2-hour course is an introductory overview, you will be introduced to the foundational concepts of developing with Visual Studio for embedded applications and understanding the architecture of Windows IoT Core and Azure IoT Hub. The focus will be on conceptual understanding and setting up a basic mental model for using these tools, rather than in-depth hands-on labs due to the duration.

Q: What are the recommended prerequisites for someone to get the most out of these 'Embedded Systems Classes'?

This course is designed for individuals with an intermediate understanding of programming concepts, preferably in C# or a similar object-oriented language. Basic familiarity with general computing hardware and networking principles will also be beneficial, although not strictly required.

Q: How does this course prepare me for developing real-world IoT projects using Microsoft's cloud services?

This course provides a crucial first step by demystifying the connection between embedded devices and Microsoft's Azure IoT platform. You'll learn the fundamental concepts of device communication, data flow to the cloud, and the role of Azure IoT Hub, enabling you to confidently pursue more advanced learning paths for building robust, scalable IoT solutions on Azure.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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