Course Description
This course consists of lectures, demonstrations, laboratory exercises, and question and answer sessions designed to educate the learner in the configuration of a FOUNDATION Fieldbus System.

Duration
3 Days

Objectives/Outcomes
Upon completing this course, the learner will be able to exhibit the ability to:
- Recognize FOUNDATION Fieldbus basic concepts
- Identify and define the function of each system component
- Identify and interact with the Fieldbus Builder and Device Panel
- Work with System View to create new FOUNDATION Fieldbus projects
- Design FOUNDATION Fieldbus Segments
- Implement Feedback Control Instruments using FOUNDATION Fieldbus Function Blocks
- Configure Parameters of FOUNDATION Fieldbus Function Blocks

Intended Audience
All Plant personnel whom are responsible for the installation, configuration and/or maintenance of a FOUNDATION Fieldbus System.

Course Prerequisites
- CS3000 or CENTUM VP Engineering

Technical Requirements
- Basic file/folder manipulation in a Windows environment and basic networking skills
- Basic CS 3000 or CENTUM VP operation
- Knowledge in plant instrumentation

Materials
Each learner will be provided with the appropriate course workbook.

Requirements to Be Awarded Certification
- Submit completed course Registration Form
- Fulfill financial obligations
- Fulfill the 90% attendance requirement by signing-in each day of facilitated course
- Fulfill the 70% or above overall scoring requirement on labs and projects

Evaluation Methods
- Laboratory exercises
- Question and answer sessions
**Course Syllabus**

**Day 1**
- Definition of FOUNDATION Fieldbus Technology
- Definition of User Layer – User Applications (Resource Block, Transducer Block and Function Block)
- Fieldbus Management (System and Device Management)
- Description of DD and CFF Files
- FOUNDATION Fieldbus Topologies
- FOUNDATION Fieldbus Segment Design
- FOUNDATION Fieldbus Application Design (Control Functionality, Macrocycle, Number of Functions Blocks per Segment)
- Exercises

**Day 2**
- FOUNDATION Fieldbus Field Device Configuration (Parameters in the Blocks)
- Engineering and Configuration of FOUNDATION Fieldbus in CS 3000/CENTUM VP (System View, Control Drawing Builder, Fieldbus Builder, Device Registration, and Device Panel, and Device Replacement)
- Engineering and Configuration of FOUNDATION Fieldbus in CS 3000/CENTUM VP (Device Replacement)
- Exercises

**Day 3**
- FOUNDATION Fieldbus Trouble Shooting and Maintenance Tools
- Use of Device Panel for Checkup, Trouble Shooting and Field Device Replacement
- Use of Relcom FBT-6 for Checkup and Trouble Shooting
- Use of Digital Oscilloscope for Checkup and Trouble Shooting
- Use of 375 Handheld for checkup and Trouble Shooting
- Exercises

**Intellectual Property Rights**

Yokogawa’s Education Center owns unlimited exclusive rights to all works, including literary works, pictorial, graphic and sculptural works, architectural work, works of visual art and other work that may be subject matter of copyright protection; advertising and marketing concepts; information; data, formulas, designs specifications, and flowcharts; trade secrets; and any invention that may be subject matter of patent protection; and all statutory protection obtained or obtainable thereon.