

# ControlLogix/Studio 5000

Studio 5000 Logix Designer Level 1:  
ControlLogix Fundamentals  
and Troubleshooting



**Rockwell  
Automation**



**Allen-Bradley**  
by ROCKWELL AUTOMATION

## Course Number

CCP299

## Course Purpose

Upon completion of this course, you should be able to troubleshoot a previously operational ControlLogix® system and restore normal operation.

You will have the opportunity to develop and practice these skills by:

- Learning basic concepts and terminology used with:
  - ControlLogix system hardware
  - Studio 5000 Logix Designer® application
- Practicing a systematic strategy for diagnosing and troubleshooting problems:
  - Configuration issues
  - Electrical noise
  - Faulty/malfunctioning field devices
  - Controller I/O, or other hardware issues
- Performing hands-on exercises

All Logix5000™ systems use the same control engine; therefore, tasks are similar. You will see applicable references for other systems

## COURSE AGENDA

- Locating ControlLogix Components
- Navigating through the Studio 5000 Logix Designer Application
- Connecting a Computer to a Communications Network
- Downloading and Going Online
- Locating I/O Tags and Devices
- Interpreting Studio 5000 Logix Designer Project Organization and Execution
- Interpreting Ladder Logic Structure
- Locating and Editing Tag Values
- Interpreting Bit Instructions
- Interpreting Frequently Used Instructions
- Interpreting Arrays
- Interpreting Tags of User-Defined Data Types
- Searching for Project Components
- Integrated Practice - Interpreting a Basic Project
- Forcing I/O and Toggling Bits
- Troubleshooting Digital I/O Problems
- Troubleshooting Analog I/O Problems
- Troubleshooting Remote I/O Problems
- Updating Logix5000 Firmware
- Troubleshooting Controller Problems
- Troubleshooting Power Supply Problems
- Analyzing and Troubleshooting a System Using a Trend Chart
- Integrated Practice-Troubleshooting Basic Projects
- Editing Ladder Logic Online
- Managing Studio 5000 Logix Designer Project Files
- Documenting and Printing Components
- Troubleshooting Noise-Related Problems

## WHO SHOULD ATTEND

This course is intended for individuals who need to maintain and troubleshoot a ControlLogix system – but have no current working experience with ControlLogix systems.

**Curriculum Note:** This course contains many of the lessons in courses CCP146 and CCP153 – in a consolidated four and a half-day format. Do not take all three courses.

## PREREQUISITES

To successfully complete this course, the following prerequisites are required:

- Ability to perform basic Microsoft Windows tasks
- Previous experience with common industrial control system concepts

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual:
  - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book:
  - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback.
- Logix5000 System Glossary:
  - Contains terms and definitions specific to Logix5000 systems and defines key Logix5000 systems terminology

- Studio 5000 Logix Designer and Logix5000 Procedures Guide:
  - Provides the steps required to complete basic tasks that are common to all Logix5000 hardware platforms
- ControlLogix Troubleshooting Guide:
  - Contains a systematic approach to diagnosing and troubleshooting common ControlLogix system problems

## HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises using an ABT-TDCLX3-B ControlLogix workstation. Exercises focus on the skills introduced in each lesson.

Integrated practices combine and practice several key skills at once.

## COURSE LENGTH

This is a four-and-a-half-day course.

## IACET CEUS

Rockwell Automation is authorized by IACET to offer 3.2 CEUs for this program.







## TO REGISTER

To register for this or any other Rockwell Automation training course, contact your local authorized Allen-Bradley® Distributor or your local Sales/Support office for a complete listing of courses, descriptions, prices, and schedules.

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# ControlLogix/Studio 5000

Studio 5000 Logix Designer Level 2:  
Basic Ladder Logic Programming



**Rockwell  
Automation**



**Allen-Bradley**

by ROCKWELL AUTOMATION

## Course Number

CCP151

## Course Purpose

After completing this course, you should be able to program basic ladder logic instructions for Logix5000™ controllers. This is a skill-building course that provides you with the resources and hands-on practice required to complete this objective.

You will have an opportunity to use the Studio 5000 Logix Designer® application to perform basic software tasks to meet the requirements of a given functional specification. In addition, you will set up a sequencer to run equipment through a predefined procedure and separate production procedure from equipment control.

### COURSE AGENDA

#### DAY 1

- Starting a Ladder Diagram for a Studio 5000 Logix Designer Project
- Testing a Ladder Diagram in a Studio 5000 Logix Designer Project
- Programming Timer Instructions in a Studio 5000 Logix Designer Project
- Programming Compare Instructions in a Studio 5000 Logix Designer Project
- Programming Move Instructions in a Studio 5000 Logix Designer Project
- Programming Math Instructions in a Studio 5000 Logix Designer Project

#### DAY 2

- Programming Counter Instructions in a Studio 5000 Logix Designer Project
- Handling Expressions in a Studio 5000 Logix Designer Project
- Documenting and Searching Ladder Logic Using the Studio 5000 Logix Designer Application
- Programming a Procedure in a Studio 5000 Logix Designer Project
- Separating the Procedure from Equipment Control in Studio 5000 Logix Designer Project
- Copying and Filling an Array in a Studio 5000 Logix Designer Project

## WHO SHOULD ATTEND

Programmers that have little or no working experience with controllers, are responsible for programming Logix5000 controllers using the Logix Designer application, and need to learn how to draft ladder logic for any application should attend this course.

## PREREQUISITES

To successfully complete this course, completion of the Studio 5000 Logix Designer Level 1: ControlLogix System Fundamentals course (Course No. CCP146) or equivalent experience is required.

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
  - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book
  - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback.
- Studio 5000 Logix Designer and Logix5000 Procedures Guide
  - Provides the steps required to complete basic software tasks that are common to all Logix5000 hardware platforms

## HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises using an ABT-TDCLX3-B workstation. Exercises focus on the skills introduced in each lesson.

## NEXT LEARNING LEVEL

Once you have an understanding of the topics and skills covered in this course, you may want to attend one or more of the following courses:

- Studio 5000 Logix Designer Level 3: Project Development (Course No. CCP143)
- DeviceNet and RSNetWorx Configuration and Troubleshooting (Course No. CCP164)
- ControlNet and RSNetWorx Configuration and Troubleshooting (Course No. CCP173)

## COURSE LENGTH





This is a two-day course.

### TO REGISTER

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# ControlLogix/Studio 5000

Studio 5000 Logix Designer Level 2:  
ControlLogix Maintenance  
and Troubleshooting



**Rockwell  
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## Course Number

CCP153

## Course Purpose

Upon completion of this course, you will be able to troubleshoot a previously operational ControlLogix® system and restore normal operation.

This course adds to your skill set by introducing new tasks such as connecting to a network, interpreting project execution, editing ladder logic online, and more.

You will then be presented with a systematic strategy for diagnosing and troubleshooting a variety of common system errors:

- Controller, I/O, and other hardware problems
- Noise-related problems
- Software configuration problems

## COURSE AGENDA

### DAY 1

- Optional Locating: ControlLogix System Components
- Connecting a Computer to a Network
- Interpreting Project Organization and Execution
- Locating and Editing Tag Values
- Interpreting Frequently Used Instructions

### DAY 2

- Interpreting Arrays
- Interpreting Tags of User-Defined Data Types
- Searching for Project Components
- Integrated Practice-Interpreting a Basic Project
- Forcing I/O and Toggling Bits
- Troubleshooting Digital I/O Module Problems

### DAY 3

- Troubleshooting Analog I/O Module Problems
- Troubleshooting Remote I/O Problems
- Updating Logix5000 Firmware
- Troubleshooting Controller Problems
- Troubleshooting Power Supply Problems
- Analyzing and Troubleshooting a System Using a Trend Chart

### DAY 4

- Integrated Practice-Troubleshooting Basic Projects
- Editing Ladder Logic Online
- Optional: Editing FBDs Online
- Managing Project Files
- Documenting and Printing Project Components
- Troubleshooting Noise-Related Problems

## WHO SHOULD ATTEND

Individuals who need to maintain and troubleshoot a ControlLogix or other Logix5000™ system should attend this course.

## PREREQUISITES

To successfully complete this course, completion of the Studio 5000 Logix Designer Level 1: ControlLogix System Fundamentals course (Course No. CCP146) or equivalent experience is required.

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
  - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book
  - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback.
- Studio 5000 Logix Designer and Logix5000 Procedures Guide
  - Provides the steps required to complete basic software tasks that are common to all Logix5000 hardware platforms
- ControlLogix Troubleshooting Guide
  - Contains a systematic approach to diagnosing and troubleshooting common ControlLogix system problems

## HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises. Exercises focus on the skills introduced in each lesson and are performed on an ABT-TDCLX3-B ControlLogix workstation.

Integrated practices combine and practice several key skills at once.

The basic skills taught in this course apply to all Logix5000 platforms; you can apply what you have learned to the specific platform used in your plant

## NEXT LEARNING LEVEL

Once you have mastered the maintenance and troubleshooting skills covered in this course, you may be interested in one or more of the following courses:

- Studio 5000 Logix Designer Level 3: Basic Ladder Logic Interpretation (Course No. CCCL21)
- DeviceNet and RSNetWorx Configuration and Troubleshooting (Course No. CCP164)
- ControlNet and RSNetWorx Maintenance and Troubleshooting (Course No. CCP173)

## COURSE LENGTH

This is a four-day course.

## IACET CEUS

Rockwell Automation is authorized by IACET to offer 2.8 CEUs for this program.







## TO REGISTER

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# ControlLogix/Studio 5000

Studio 5000 Logix Designer Level 3:  
Project Development



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## Course Number

CCP143

## Course Purpose

Upon completion of this course, given a functional specification for a Logix5000™ application, you should be able to develop a project to meet the specification requirements.

This course covers tasks common to the following hardware, which all use the Logix5000 control engine:

- ControlLogix® controllers
- CompactLogix™ controllers
- SoftLogix™ controllers

This course builds upon your knowledge of common controller terms and operation and your experience with basic ladder logic programming.

You can gain a deeper understanding of project development tasks that are common to all Logix5000 controllers. Such tasks include organizing tasks and routines, organizing controller data, configuring modules, and sharing data.

You will also use producer/consumer technology for multicasting to input and output devices, sharing data between controllers, and controlling remote I/O.

## COURSE AGENDA

### DAY 1

- Creating and Organizing a Project
- Creating a Periodic Task
- Creating an Event Task
- Developing an Add-On Instruction in a Ladder Diagram

### DAY 2

- Organizing Arrays
- Creating a User-Defined Data Type
- Importing Components
- Entering, Editing, and Verifying Ladder Logic
- Configuring a Controller to Produce and Consume Data
- Configuring a Logix5000 Message

### DAY 3

- Configuring Controllers and Modules to Communicate and Share Data over EtherNet/IP
- Communicating with a Local 1756-I/O Module
- Allocating Connections
- Retrieving and Setting Controller Status Values with GSV/SSV Instructions
- Programming a BTI Instruction
- Handling a Major Fault

### DAY 4

- Managing Project Files
- Updating Logix5000 Firmware
- Integrated Practice: Developing a Studio 5000 Logix Designer Project

## WHO SHOULD ATTEND

Individuals who need to develop Studio 5000 Logix Designer® projects for any Logix5000 controller should attend this course.

## PREREQUISITES

To successfully complete this course, the following prerequisites are required:

- Ability to perform basic Microsoft Windows tasks
- Knowledge of common controller terms and operation through experience or one of the following courses:
  - Studio 5000 Logix Designer Level 1: ControlLogix System Fundamentals (Course No. CCP146)
  - RSTrainer for ControlLogix Fundamentals computer-based training (9393-RSTCLX)
- Ability to write basic ladder logic with common instructions, such as bit, timer, counter, move, and comparison instructions through experience or this course:
  - Studio 5000 Logix Designer Level 2: Basic Ladder Logic Programming (Course No. CCP151)

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
  - Includes the key concepts, definitions, examples, and activities
- Lab Book
  - Provides learning activities and hands-on practice
- Studio 5000 Logix Designer and Logix5000 Procedures Guide
  - Provides the steps required to complete basic software tasks common to all Logix5000 controllers
- Logix5000 Controllers Design Considerations Reference Manual:
  - Contains guidelines for designing a Logix5000 application

## HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises using an ABT-TDCLX3-B workstation. Exercises focus on the skills introduced in each lesson.

## NEXT LEARNING LEVEL

Once you have an understanding of the topics and the skills covered in this course, you may want to attend specific programming training such as:

- Studio 5000 Logix Designer Level 4: Function Block Programming (Course No. CCP152)
- Studio 5000 Logix Designer Level 4: Kinetix 6000 (SERCOS) Programming (Course No. CCN145)
- Studio 5000 Logix Designer Level 4: Kinetix 6500 (CIP) Programming (Course No. CCN144)

## COURSE LENGTH

This is a four-day course.

## IACET CEUS

Rockwell Automation is authorized by IACET to offer 2.8 CEUs for this program.







## TO REGISTER

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# ControlLogix/Studio 5000

Studio 5000 Logix Designer Level 4:  
Function Block Programming



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## Course Number

CCP152

## Course Purpose

This course is a skill-building programming course that provides you with an understanding of Studio 5000 Logix Designer® function block diagrams and terminology. This course also provides you with the resources and hands-on practice required to efficiently program a Logix5000™ controller using function block diagrams.

You will have an opportunity to use Logix Designer application and perform software tasks to meet the requirements of a given functional specification. In addition to using function blocks, you will perform parameter modifications to individual function block instructions, as well as create and develop function block diagram programs and routines. You will also gain experience with a variety of function block instructions, including PIDE and add-on instructions.

## COURSE AGENDA

### DAY 1

- Creating a Function Block Diagram
- Programming Logical Function Block Instructions
- Programming Timer and Counter Function Block Instructions
- Programming Analog Function Block Instructions
- Programming Device Driver Function Block Instructions
- Selecting Timing Modes in a Function Block Instruction

### DAY 2

- Programming a Totalizer Function Block Instruction
- Programming and Monitoring an RMPS (Ramp/Soak) Function Block Instruction
- Controlling Program Flow Using Function Block Instructions
- Programming a PID Loop Using Function Block Diagram
- Tuning a PID Loop Using ActiveX Controls
- Developing an Add-On Instruction in Function Block Diagram

## WHO SHOULD ATTEND

Individuals who are responsible for developing, debugging, and programming Logix5000 controllers using the Logix Designer application with function block diagrams should attend this course.

Also, individuals who use ActiveX controls in an operator interface, such as FactoryTalk® View ME software, should attend this course.

## PREREQUISITES

To successfully complete this course, the following prerequisites are required:

- Ability to perform basic Microsoft Windows tasks
- Understanding of basic measurement and control theory, including basic loop control
- Completion of the Studio 5000 Logix Designer Level 3: Project Development course (Course No. CCP143) or equivalent experience

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
  - Contains the topical outlines and exercises
  - Used to follow presentations, take notes, and work through exercises
- Studio 5000 Logix Designer and Logix5000 Procedures Guide
  - Provides the steps required to complete basic software tasks common to all Logix5000 controllers

## HANDS-ON PRACTICE

To gain real-world programming experience, you will be given a functional specification for a fictitious batch process mixer, where bulk ingredients are mixed to produce a product. You will be the programmer for this batch mixer and must follow the functional specification, which will be the basis for all hands-on exercises in this course.

After completing all exercises, you will have developed a Logix5000 project for the fictitious batch process mixer. As you develop your project, you will be given opportunities to run it using an ABT-TDCLX3-B workstation. This programming and process-based application experience can then be transferred to your own job responsibilities.

## NEXT LEARNING LEVEL

Once you have mastered the function block diagram skills covered in this course, you will be able to expand your Logix5000 programming knowledge by attending other Logix5000 programming courses, such as the Studio 5000 Logix Designer Level 4: Kinetix 6000 (SERCOS) Programming course (Course No. CCN145).

## COURSE LENGTH





This is a two-day course.

### TO REGISTER

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# Visualization

FactoryTalk View ME and  
PanelView Plus Programming



**Rockwell  
Automation**



**Allen-Bradley**  
by ROCKWELL AUTOMATION

## Course Number

CCV204-A

## Course Purpose

After completing this course, given a computer with FactoryTalk® View Machine Edition (ME) software and a PanelView™ Plus 7 terminal, you should be able to produce an operational application running on the terminal.

During class, you will practice the following hands-on skills:

- Prepare a PanelView Plus 7 terminal for operation
- Create a new application and run it on a terminal
- Create, configure, and animate graphic objects on graphic displays
- Configure security for granting/restricting access to certain graphic displays or for rights to perform certain actions
- Create and configure messages and alarms for alerting operators to changes in a process

## COURSE AGENDA

### DAY 1

- Configuring a PanelView Plus 7 Terminal
- Creating and Customizing a FactoryTalk View ME Application
- Configuring RSLinx® Enterprise Communications
- Configuring FactoryTalk Security
- Creating and Modifying Tags
- Adding and Configuring FactoryTalk View ME Graphic Displays

### DAY 2

- Creating and Manipulating Graphic Objects
- Creating and Configuring Interactive Controls
- Configuring Security for FactoryTalk View ME Displays
- Creating and Managing FactoryTalk View ME Runtime Files
- Configuring Basic Animation for FactoryTalk View ME Objects

### DAY 3

- Creating and Configuring Alarms
- Creating and Configuring Macros
- Configuring Recipes with the RecipePlus System
- Configuring Language Switching
- Creating Data Logs and Trends

### DAY 4

- Creating Tag Placeholders and Parameter Files
- Creating and Configuring Information Messages
- Adding Global Objects to a FactoryTalk View ME Application
- Inserting Faceplates in a FactoryTalk View ME Application

## WHO SHOULD ATTEND

Individuals who need to create FactoryTalk ME applications for use on a PanelView Plus terminal should attend this course.

## PREREQUISITES

To successfully complete this course, the following prerequisites are required:

Completion of the *Studio 5000 Logix Designer Level 1: ControlLogix System Fundamentals* (Course Number CCP146) or basic experience with ControlLogix® tags and architecture.

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
  - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book
  - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback
- FactoryTalk View ME and PanelView Plus Procedures Guide:
  - Provides the steps required to complete the tasks in the exercises

## HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises using a CompactLogix™ and PanelView Plus 7 workstation (Catalog Number ABT-TDCMPX-PVP7). Exercises focus on the skills introduced in each lesson.

## NEXT LEARNING LEVEL

The skills covered in this course can help you prepare for other visualization training courses. One such course is *FactoryTalk View SE Programming* (Course Number CCV207), which focuses on creating distributed, plant-wide applications.

## COURSE LENGTH

This is a four-day course.

## IACET CEUS

Rockwell Automation is authorized by IACET to offer 2.8 CEUs for this program.







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# Visualization

## FactoryTalk View SE Programming



**Rockwell  
Automation**



**Allen-Bradley**  
by ROCKWELL AUTOMATION

## Course Number

CCV207

## Course Purpose

Upon completion of this course, you should be able to organize and develop FactoryTalk® View Site Edition (SE) applications.

This course provides opportunities for you to work with local FactoryTalk View SE applications.

During class, you will have the opportunity to practice the skills used to create an application and build graphic displays.

You will learn how to configure alarms and security, trend data, and test your application using FactoryTalk View SE Client. You will also work with RSLinx® Enterprise communications software and the FactoryTalk Diagnostics system.

After practicing these skills in a local application, you will receive a high-level overview of how a network application is created.

## COURSE AGENDA

### DAY 1

- Getting Started with FactoryTalk View SE Software
- Creating and Configuring a Local FactoryTalk View SE Application
- Creating a Graphic Display and Adding Basic Objects in a FactoryTalk View SE Application

### DAY 2

- Adding Interactive Objects to a Display and Creating a FactoryTalk View SE Client
- Animating a Graphic Display in a FactoryTalk View SE Application
- Creating and Managing HMI Tags in a FactoryTalk View SE Application

### DAY 3

- Creating, Modifying, and Viewing a Data Log Model in a FactoryTalk View SE Application
- Creating Trends and Trend Overlays in a FactoryTalk View SE Application
- Using Tag Placeholders in a FactoryTalk View SE Application
- Configuring Global Objects and Global Object Parameters in a FactoryTalk View SE Application
- Adding VBA Display Code in a FactoryTalk View SE Application

### DAY 4

- Creating a Derived Tags File and an Event File in a FactoryTalk View SE Application
- Creating Keys, Macros and Symbols in a FactoryTalk View SE Application
- Configuring HMI Tag-Based Alarms in a FactoryTalk View SE Application
- Configuring FactoryTalk Alarms and Events in a FactoryTalk View SE Application
- Planning and Configuring Basic Security in the FactoryTalk Directory

### DAY 5

- Configuring Security in a FactoryTalk View SE Application
- Displaying a FactoryTalk View SE Application in FactoryTalk ViewPoint
- Creating and Configuring a Network Distributed FactoryTalk View SE Application

## WHO SHOULD ATTEND

Individuals who need to develop FactoryTalk View SE local (stand-alone) or network distributed applications should attend this course.

## PREREQUISITES

To successfully complete this course, experience operating a personal computer within a Microsoft Windows 7 environment is recommended.

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual:
  - Includes the key concepts, definitions, examples, and activities
- Lab Book:
  - Provides learning activities and hands-on practice
- FactoryTalk View SE Procedures Guide:
  - Provides all the steps required to complete common FactoryTalk View SE application development tasks
  - Allows you to immediately apply what is learned in the course to your own job

## HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises. These exercises focus on the skills introduced in each lesson.

## COURSE LENGTH

This is a four-and-a-half day course.

## IACET CEUS

Rockwell Automation is authorized by IACET to offer 3.2 CEUs for this program.







## TO REGISTER

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# Visualization

FactoryTalk View ME and PanelView Plus  
Maintenance and Troubleshooting



**Rockwell  
Automation**



**Allen-Bradley**  
by ROCKWELL AUTOMATION

## Course Number

CCV209

## Course Purpose

This course provides you with the skills necessary to maintain and troubleshoot FactoryTalk® View Machine Edition (ME) applications that run on PanelView™ Plus 7 terminals.

This course provides opportunities to work with both the hardware and software. During class, you will gain the hands-on skills required to prepare a PanelView Plus 7 terminal for operation. You will also work with FactoryTalk View ME software and RSLinx® Enterprise software and will practice downloading FactoryTalk View ME applications to a PanelView Plus terminal.

### COURSE AGENDA

#### DAY 1

- Identifying PanelView Plus 7 Components
- Setting Options on a PanelView Plus 7 Terminal
- Managing Existing Runtime Files on a PanelView Plus 7 Terminal
- Managing Development Files Using the Application Manager
- Modifying RSLinx Enterprise Communications in a FactoryTalk View ME Application

#### DAY 2

- Creating Tags and Testing Data in a FactoryTalk View ME Application
- Downloading and Uploading FactoryTalk View ME Runtime Files
- Modifying Graphic Displays in a FactoryTalk View ME Application
- Modifying Security at Runtime in a FactoryTalk View ME Application
- Troubleshooting a PanelView Plus 7 Terminal
- Viewing and Printing FactoryTalk View ME Components Using the Application Documenter
- Integrated Practice: Troubleshooting System Communications

## WHO SHOULD ATTEND

Individuals who need to maintain FactoryTalk ME applications and troubleshoot PanelView Plus 7 terminals should attend this course.

## PREREQUISITES

To successfully complete this course, the following prerequisites are required:

Completion of the *Studio 5000 Logix Designer Level 1: ControlLogix System Fundamentals* (Course Number CCP146) or basic experience with ControlLogix® tags and architecture.

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual:
  - Includes the key concepts, definitions, examples, and activities presented in the course
- Lab Book:
  - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback.
- FactoryTalk View ME and PanelView Plus Procedures Guide:
  - Provides the steps required to complete the tasks in the exercises
- PanelView Plus 7 Performance Terminals User Manual:
  - Provides terminal parameters and error messages
  - Contains frequently referenced troubleshooting documentation.

## HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises using a ControlLogix® workstation (Catalog Number ABT-TDCLX3-B) and a PanelView Plus 7 terminal.

## NEXT LEARNING LEVEL

The skills covered in this course can help you prepare for other visualization training courses. One such course is *FactoryTalk View ME and PanelView Plus Programming* (Course No. CCV204), which focuses on creating FactoryTalk View ME applications.

## COURSE LENGTH

This is a two-day course.

## IACET CEUS

Rockwell Automation is authorized by IACET to offer 1.4 CEUs for this program.







## TO REGISTER

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# Drives

## PowerFlex 750-Series Configuration and Startup



**Rockwell  
Automation**



**Allen-Bradley**  
by ROCKWELL AUTOMATION

## Course Number

CCA182

## Course Purpose

Upon completion of this course, given a wired PowerFlex® 750-Series drive (PowerFlex 753 or PowerFlex 755) and AC motor, you will be able to properly install the drive, start up the drive, and configure drive parameters to meet application-specific needs.

Throughout the course, you will have the chance to use a variety of hardware and software tools, including:

- The A6 LCD HIM
- Connected Components Workbench™ software
- DriveExecutive™ software

After each demonstration, you will be given exercises that offer extensive hands-on practice using a PowerFlex 753 or PowerFlex 755 drive.

This two-day course can be taken as a standalone course, or it can be taken in conjunction with other courses in the PowerFlex 7-Class curriculum to further broaden skills development.

## COURSE AGENDA

### DAY 1

- Verifying the PowerFlex 750-Series Drive Installation Environment
- Verifying PowerFlex 750-Series Drive Wiring and Grounding
- Locating and Modifying PowerFlex 750-Series Drive Data Using the A6 HIM
- Configuring EtherNet/IP Communications for a PowerFlex 750-Series Drive

### DAY 2

- Locating and Modifying PowerFlex 750-Series Drive Data Using Drive Software
- Starting Up a PowerFlex 750-Series Drive
- Interpreting PowerFlex 750-Series Control Block Diagrams
- Controlling PowerFlex 750-Series Drive Operation

## WHO SHOULD ATTEND

This course is intended for individuals who need to configure and start up PowerFlex 750-Series drives.

## PREREQUISITES

To successfully complete this course, the following prerequisites are required:

- Working knowledge of electricity, and knowledge of electrical and industrial safety (including PPE requirements and safe practices)
- Completion of the AC/DC Motors and Drives Fundamentals course (Course No. CCA101) or equivalent experience

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
  - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book
  - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback.
- PowerFlex 750-Series AC Drives Programming Manual
  - Source of drive parameters and other key data
  - Contains frequently referenced programming documentation
- PowerFlex 750-Series AC Drives Installation Instructions
  - Source for the basic steps for mechanical installation and for connecting incoming power, the motor, and basic I/O

- Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives
  - Provides basic information to install, protect, wire, and ground PWM AC drives

## HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises using either an ABT-TDPF755CLS or ABT-TDPF753CLS workstation. Exercises focus on the skills introduced in each lesson.

## NEXT LEARNING LEVEL

Once you have an understanding of the topics and the skills covered in this course, you may want to attend other PowerFlex 750-Series drive training such as:

- PowerFlex 750-Series Configuration for an Integrated Architecture System course (Course No. CCA184).

## COURSE LENGTH





This is a two-day course.

### TO REGISTER

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# Drives

## PowerFlex 750-Series Maintenance and Troubleshooting



**Rockwell  
Automation**



**Allen-Bradley**  
by ROCKWELL AUTOMATION

## Course Number

CCA183

## Course Purpose

This skill-building course introduces concepts and techniques that will assist you in successfully maintaining and troubleshooting a PowerFlex® 750-Series (PowerFlex 753 or PowerFlex 755) drive. You will learn how to recognize PowerFlex 750-Series drive hardware and properly wire the drive. You will also learn to diagnose specific faults.

Throughout the course, you will have the chance to use a variety of maintenance and troubleshooting tools, including:

- The A6 LCD HIM
- Connected Components Workbench™ software
- DriveExecutive™ software

After each demonstration, you will be given exercises that offer extensive hands-on practice using a PowerFlex 753 or PowerFlex 755 drive.

This two-day course can be taken as a stand-alone course, or it can be taken in conjunction with other courses in the PowerFlex curriculum for further skills development.

## COURSE AGENDA

### DAY 1

- Locating PowerFlex 750-Series Drive Hardware
- Locating and Modifying PowerFlex 750-Series Drive Data Using the A6 HIM
- Locating and Modifying PowerFlex 750-Series Drive Data Using Drive Software
- Clearing PowerFlex 750-Series Drive Alarms and Faults

### DAY 2

- Performing Predictive Maintenance Using PowerFlex 750-Series Parameters
- Troubleshooting PowerFlex 750-Series Load and Environmental Faults
- Troubleshooting PowerFlex 750-Series Equipment Malfunctions
- Integrated Practice: Maintaining and Troubleshooting a PowerFlex 750-Series Drive

## WHO SHOULD ATTEND

Individuals responsible for maintaining and troubleshooting PowerFlex 750-Series drives should take this course.

## PREREQUISITES

To successfully complete this course, the following prerequisites are required:

- Working knowledge of electricity, and knowledge of electrical and industrial safety (including PPE requirements and safe practices).
- Completion of the AC/DC Motors and Drives Fundamentals course (Course No. CCA101) or Fundamentals of AC and DC Motors and Drives or equivalent experience
- Previous experience with PowerFlex 700 Vector Control and/ or PowerFlex 700S drives is recommended but **not** required.

## STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual:
  - Includes the key concepts, definitions, examples, and activities
- Lab Book:
  - Provides learning activities and hands-on practice

- *PowerFlex 750-Series AC Drives Programming Manual:*
  - Source of drive parameters and other key data
  - Contains frequently referenced programming documentation
- *PowerFlex 750-Series AC Drives Installation Instructions:*
  - Provides steps for installing and wiring drives
  - Contains frequently referenced installation data

## HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises using either an ABT-TDPF753CLS or ABT-TDPF755CLS workstation. Exercises focus on the skills introduced in each lesson and allow students to replace PowerFlex 750-Series drive components and troubleshoot faults and alarms. The PowerFlex 750-Series drive workstation introduces real-world maintaining and troubleshooting situations into a classroom setting.

## COURSE LENGTH





This is a two-day course.

### TO REGISTER

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# Medium Voltage Drives & Soft starters



**Course No.:**  
K400

## Course Objectives:

Upon completion of these course, you should be able to:

- Prescribe drives
- Select the right drive
- Consider application needs
- Consider environmental conditions and personal safety

## Course Outline:

- Rockwell Portfolio (PowerFlex 6000 & PowerFlex 7000)
- Specifications and features of each family.
- Selection of drives based on your application.
- Internal arc protection (ArcShield Technology).
- Synchronous transfer system.

## Who Should Attend:

This course is intended for individuals who want to know more about Rockwell medium voltage drives and how to get its maximum advantage.

**Course Duration:**  
2 Days

Get in touch



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# Motor Control Center



**Course No.:**  
K401

## Course Objectives:

Upon completion of these course, you should be able to:

- Prescribe MCC
- Select the right MCC
- Consider application needs
- Consider environmental conditions and personal safety

## Course Outline:

- Rockwell Portfolio (CENTERLINE 2500, CENTERLINE 2100 and CENTERLINE 1500)
- Specifications and features of each family
- Thermal management study.
- Coordination and selectivity between incomers and outgoings.
- Smart motor control center (INTELLICENTER)
- Internal arc protection (ArcShield Technology).

## Who Should Attend:

This course is intended for individuals who want to know more about Rockwell motor control centers and how to get its maximum advantage.

**Course Duration:**  
2 Days

Get in touch



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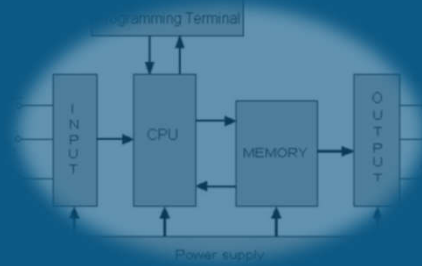
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# Industrial Automation Basics



**Course No.:**  
K001

## Course Objectives:

Upon completion of these course, you should be able to:

- Understand the main concept of the Automation and having the ability to join the upper levels of the Automation field.

## Course Outline:

- What is a PLC
- Input Output System
- PLC Operating Cycle
- Communication
- PLC Programming
- What is HMI/SCADA

## Who Should Attend:

This course is designed for fresh Engineers.

## Course Duration:

15 hours - 3 days.

Get in touch



## Egypt

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# Instrumentation for Automation

Instrumentation basics, process measurements, control valves, control systems, and basic process control.



**Course No.:**  
K100

## Course Objectives:

Upon completion of this course, you should be able to:

- Identify the instrumentation basics such as instrument types, classifications, and functions.
- Read different documents like P&ID, PFD, and wiring diagram.
- Differentiate between types of process measurements like pressure, level, flow, and temperature and their applications in different processes.
- Identify the continuous and discrete instruments.
- Be aware of control valve function, main components, and importance

## Course Outline:

### ➤ Instrumentation Basics

- Piping & Instrumentation Diagram (P&ID)
- Process Control Definition
- Basic Elements of Control Loop
- Open Loop & Closed Loop Control
- Sensors & Transducers
- Standard Instrument Signal
- Basic Definitions
  - Range & Span
  - Accuracy Vs. Precision
  - Linearity
  - Hysteresis
  - Rangeability & Turndown
  - Dynamic Conditions Affecting Measurement
  - Smart Transmitter

### ➤ Pressure Measurements Fundamentals

- Mechanical Pressure Elements
- Electrical Pressure Elements
- Differential Pressure Transmitters
- Pressure Sensor Accessories
- Pressure Switches

### ➤ Level Measurements Fundamentals

- Level Gauges (Sight Glasses)
- Hydrostatic Pressure
- Displacement
- Echo
  - Ultrasonic Level Measurement
  - Radar Level Measurement

### ➤ Flow Measurements Fundamentals

- Pressure-based Flowmeters
- Variable-area Flowmeters
- Velocity-based Flowmeters
  - Magnetic Flowmeter
  - Vortex Flowmeter
  - Turbine Flowmeter
  - Ultrasonic Flowmeter

### ➤ Temperature Measurements Fundamentals

- Concepts of Temperature Measurements
- Industrial Assembly for Electric Contacting Thermometers
- Signal Processing & Transmitter Configurations
- Accuracy, Calibration, & Verification
- Applications in Chemical Industries



- Control Valves
  - Introduction
  - Valve Body
  - Control Valve Actuators
    - Pneumatic Actuators
    - Hydraulic Actuators
    - Electric Actuators
  - Valve Positioners
  - Solenoid Valve

**Who Should Attend:**

This course is designed for Instrumentation and process engineers, supervisors, and technicians.

**Course Duration:**

30 hours - 5 days.

Get in touch

**Egypt**

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# Control Valves (Selection & Sizing)



**Course No.:**  
K102

## Course Objectives:

Upon completion of these course, you should be able to:

- Identify the types and functions of valves.
- Differentiation between various types of valves
- Select the proper valve size and type
- Be aware of the common standards and terminology in valve industry.

## Course Outline:

- What is the Valve?
- Valves' types
- Valve's Selection
- Operating C/s of valves
- What to consider when selecting / sizing valves?
- Standards
- Testing of control valves

## Who Should Attend:

Engineers and Operations/Maintenance Teams

## Course Duration:

(10-12) hours – (2-3) days.

Get in touch



## Egypt

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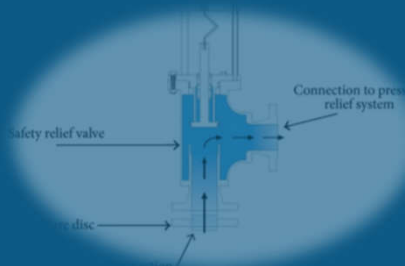
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# Pressure Relief Safety Systems



**Course No.:**  
K103

## Course Objectives:

Upon completion of this course, you should be able to:

- Know the terminology of safety concepts and reasons of using safety devices.
- Identify the main aspects in selecting safety valve and rupture.
- Differentiate between the safety valves & rupture disks.
- Test and codes of safety valves and rupture disks.

## Course Outline:

- Objective of Pressure Relief Systems
- Overview of Pressure Relief Valves
- Selection of Pressure Relief Valves
- Sizing Pressure Relief Valves
- Overview of Rupture Disks
- Selection of Rupture Disks
- Explosion Venting Technology
- Sizing of Rupture Disks
- Buckling Pin technology

## Who Should Attend:

Mechanics, instrument engineers, operations and maintenance teams.

## Course Duration:

(10-12) hours – (2-3) days.

Get in touch



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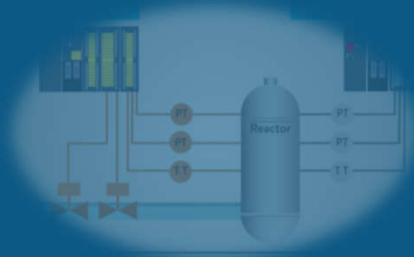
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# Safety Instrumented Systems (SIS)



**Course No.:**  
K200

## Course Objectives:

Upon completion of these course, you should be able to:

- Differentiate between basic process control system and safety control system.
- Identify the hazard area classification and related protective methods.
- Identify the basics of evaluating process risk levels.
- Differentiate between techniques of determining Safety Integrity Level (SIL).
- Deal with ISA84 (IEC 61511) standard.
- Identify detailed Engineering of "ESD" Emergency Shutdown Systems.
- Identify detailed engineering of "F&G" Fire & Gas Systems.

## Course Outline:

- **Classified Areas and Electrical Safety Measures**
- **Protective Measures**
- **Concepts of Probability**
- **Practical Measures of Reliability, Failure Rate and MTBF, Probability of Failure on Demand (PFD)**

- **Safety Integrity Levels (SIL)**
- **Safety Standards**
- **Layers of Protection**
- **Preventive Layer: ESD System**
- **Mitigation Layer: F&G System**

## Who Should Attend:

Electro Engineers, Instrument Engineers, Process Engineers, Safety Engineers, and Operation and/or Maintenance personnel who are involved with different phases of the Functional Safety Lifecycle from Hazard and Risk Assessment to the Operation and Maintenance phase.

## Course Duration:

18 hours – 3 days

**Get in touch**



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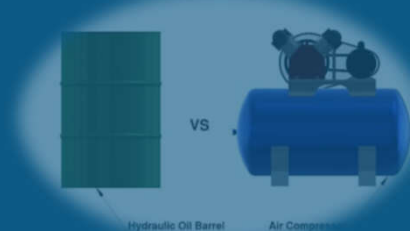
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# Pneumatic and Hydraulic Systems



**Course No.:**  
K500

## Course Objectives:

Upon completion of these course, you should be able to:

- Identify the Fluid physics.
- Be familiar with the symbols drawn to the relevant standards
- Analyze the pneumatic & Hydraulic circuit diagrams.
- Identify the functioning of standard cylinders and valves.
- Be familiar with the pneumatic controls.
- Identify the specification and selection of the required system components.
- Be familiar with the safety practices.

## Course Outline:

- **Introduction to pneumatic and hydraulic systems: Physical principles, electrical versus hydraulic versus pneumatic systems.**
- **Applications of pneumatic and hydraulic systems, and electro-hydraulic systems.**
- **Hydraulic system: Power units, reservoirs, filters, piping and hoses, accumulators.**
- **Pneumatic systems: Service unit, compressors (piston, screw, rotary), filters, air dryers, lubricators, pressure regulation valves, control valves, actuators, pneumatic circuits.**
- **System Design & Representation:**
  - Standard Symbols
  - Circuit Diagram
  - Technical Data
- **Valves:**
  - Types: Spool valve, poppet valve, pilot-operated valves, pressure control valves, flow control valves, check valves, sequence valves, Proportional valves, servo valves, cartridge valves, modular valves.
  - Pressure valves: Pressure relief valves, Pressure regulators
  - Directional control valves
  - Non-return valves
  - Flow control valves

- **Actuators: Rotary (motors) and linear (cylinders)**
- **Safety regulations**
- **Basic logic elements and functions**
- **Wiring and Connection of circuits.**

## Who Should Attend:

All personnel involved with the design, installation, maintenance, operation, and servicing of industrial pneumatic equipment and basic control systems.

## Course Duration:

18 hours – 3 days

Get in touch



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# Firefighting Systems Design



**Course No.:**  
K502

## Course Objectives:

Upon completion of these course, you should be able to:

- Identify the sprinkler fire protection systems design.
- Be familiar with standpipe systems design.
- Be familiar with different gaseous systems like CO<sub>2</sub>, clean agents.
- Identify the fire pumps and water supply tanks.
- Be familiar with the manual fire extinguishers design.

## Course Outline:

- **Introduction to NFPA code and knowing how to determine project firefighting requirements and design procedures.**
- **Classification of different hazards of buildings based on NFPA and Egyptian code.**
- **Determination of firefighting system that is most convenient for the project application and occupancy.**
- **Sprinkler system design (sprinkler distribution criteria, obstruction rules, piping network layout and sizing).**
- **Standpipe system design and different classes of hose valves.**
- **Hydraulic calculation for wet systems.**

- **Design of dry, pre-action and deluge systems.**
- **Fire pumps and tanks design.**
- **Design of gas suppression systems, CO<sub>2</sub>, clean agents.**
- **Introduction to how to prepare and read Firefighting design drawings on AutoCAD and Revit.**

## Who Should Attend:

Mechanical engineers who are involved in the building construction field.

## Course Duration:

15 hours – 5 days

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# Plumbing Systems Design



**Course No.:**  
K503

## Course Objectives:

- Upon completion of these course, you should be able to:
- Be familiar with buildings water supply systems design.
  - Be familiar with Buildings sanitary and storm drainage systems design.
  - Differentiate between international and local plumbing codes.
  - Identify water supply pumps and tanks.

## Course Outline:

- Introduction to Plumbing codes and standards. (IPC, ASPE, UPC, Egyptian Codes...)
- Project Plumbing Requirements and Design Procedures.
- Plumbing Fixture Types & Requirements.
- Water storage tanks.
- Water Pumps
- Buildings Cold & Hot Water Piping Networks (Sizing, Valves, Layout)
- Hot Water System Design (Individual & Central Heating Systems).
- Buildings Gravity Drainage Systems Design.
- Sump Pits & Sump Pumps.
- Drainage Interceptors (Grease, Sand, Lint)

- Plumbing for High Rise Buildings.
- Water Features (Swimming Pools, Fountains, Waterfalls)
- Introduction to How to Prepare and Read Plumbing Design Drawings on AutoCAD and Revit.

## Who Should Attend:

Mechanical engineers who are involved in the building construction field.

## Course Duration:

5 days – 3 Hours per Day

Get in touch



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# Piping Systems Design

This course covers key areas related to the design of piping systems for oil and gas facilities. This course focuses on his four areas:

Codes and Standards, Piping Materials, Piping Components, and Piping Layout and Design.



**Course No.:**  
K504

## Course Objectives:

Upon completion of these course, you should be able to:

- Be familiar with Piping systems basics.
- Be familiar with Piping codes and standards
- Differentiate between Piping valves
- Identify Piping arrangement plans
- Identify Piping plot plans
- Deal with Isometrics
- Be familiar with specification and selection of the required system components.

## Course Outline:

- Introduction to Piping Systems.
- Piping function
- Piping material
- Piping connections
- Piping codes & Standard
- Pipe fitting
- Valves Types
- Piping equipment
- Reading PFD.
- Reading P&ID.

- Piping arrangement plans.
- Piping plot plans.
- Isometrics
- Piping Support regulations
- Piping valves & support list

## Who Should Attend:

All personnel involved with the design, installation, operation and servicing of process piping systems for oil and gas facilities.

## Course Duration:

20 hours – 5 days

Get in touch



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# Communication Skills

Communication Skills enables employees to enhance their interaction with one another and with customers to improve teamwork, decision making, and problem-solving. This Communication Skills training helps trainees sharpen their existing communication strengths and provides them with interesting techniques to add into their existing skillset.



**Course No.:**  
K600

## Course Objectives:

Upon completion of these course, you should be able to:

- Understand the communication process and elements
- How to deal with the communication noise
- Identify communication directions and mode
- Know what makes an effective communication
- Listen actively to others
- Give effective and constructive feedback

## Course Outline:

- What is business communication?
- The magic word "FAT-P"
- Communication Process
- Communication Channels, Direction, and Modes
- Effective Communication
- Intonation
- Active Listening
- Feedback Giving & Art of Criticism
- Miscommunication

## Who Should Attend:

This workshop is meant for all professionals of all levels.

## Course Duration:

1 Day

Get in touch



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# Business Etiquette

Regardless of the type of your work industry and regardless of your position, you need to master the business etiquette to be able to act professionally in the business world and to ensure high quality outcomes.



## Course No.:

K601

## Course Objectives:

Upon completion of these course, you should be able to:

- Develop a great impression
- Deal with people through various channels
- Build good relationships with co-workers and clients
- Dress professionally
- Plan and attend business meetings
- Write effective emails
- Avoid business etiquette mistakes
- Brand yourself

## Course Outline:

- **Why Business Etiquette?**
- **Workplace Etiquette**
- **Impression**
- **Communication Channels**
- **Dressing Professionally**
- **Business Meetings**
- **Email Etiquette**
- **Dinning Etiquette**
- **Cultural Mistakes**
- **Self-Branding & Online Presence**

## Who Should Attend:

This workshop is meant for all professionals of all levels.

## Course Duration:

1 Day

Get in touch



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# Email Etiquette

Being an essential part of business communication, emails can build up or damage work relations. In this training, you will learn how to get your message across clearly, concisely, and effectively.



**Course No.:**  
K602

## Course Objectives:

Upon completion of these course, you should be able to:

- Structure emails effectively.
- Identify Email FAT-P
- Strike the right tone and formality level
- Avoid miscommunication
- Create professional email subjects
- Avoid common mistakes of email writing
- Write different email types
- Learn key email words, phrases, & acronyms

## Course Outline:

- Email Structure
- FAT-P
- Tone & Formality
- Miscommunication
- Common Mistakes
- Email Types
- Key Words, Phrases, & Acronyms

## Who Should Attend:

This workshop is meant for all professionals of all levels.

## Course Duration:

1 Day

Get in touch



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# Problem Solving & Decision Making

In today's dynamic business world, professionals of all levels need to have the skill and ability to handle difficulties and challenges on a daily basis through taking decisions and solving problems. In this training, you will learn a bunch of techniques and tips to enable you take the right decisions to resolve problems.



**Course No.:**  
K603

## Course Objectives:

Upon completion of these course, you should be able to:

- Identify skills for problem solving & decision making
- Understand decision making process
- Understand problem solving cycle
- Identify types of managerial decisions
- Avoid decision making biases
- Determine various methods of problem solving

## Course Outline:

- Problem Solving & Decision-Making Skills
- Decision-Making Process
- Problem Solving Cycle
- Types of Managerial Decisions
- Decision Making Biases
- Methods of Problem Solving
- Do's & Don'ts

## Who Should Attend:

This workshop is meant for all professionals of all levels.

## Course Duration:

1 Day

Get in touch



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# Time Management

Time management is the secret behind any successful activity. It is what you do to ensure a timely delivery of any task. We all want to do more with less and maximize the limited time we have. In this training, trainees will get to know productivity hacks, tools, techniques, and best practices to optimize time.



**Course No.:**  
K604

## Course Objectives:

Upon completion of these course, you should be able to:

- Analyze issues affecting time
- Identify the significant time problems
- Use selected principles to improve effectiveness
- Set priorities more effectively
- Differentiate between urgent and important tasks
- Identify delegation process steps
- Use various time management tools

## Course Outline:

- What is Time Management?
- Issues Affecting Time
- Activity Log
- Setting Priorities
- Urgent vs Important
- Effective Delegation
- Do's & Don'ts
- Time Management Tools

## Who Should Attend:

This workshop is meant for all professionals of all levels.

## Course Duration:

1 Day

Get in touch



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# Presentation Skills & Public Speaking

Public speaking and presentations are not only happening on a stage. As a professional, you're speaking up in team meetings, pitching a new project idea or talking with clients. We are always presenting. This training enables trainees to know how to effectively frame presentations, present in multiple contexts, and put into action different strategies and tips.



**Course No.:**  
K605

## Course Objectives:

Upon completion of these course, you should be able to:

- Structure and develop presentations
- Identify the FAT-P
- Develop logically sequenced presentations
- Deliver presentations confidently
- Engage the audience
- Use strategies to encourage interactivity
- Handle Q&As effectively
- Open and close presentations memorably

## Course Outline:

- **Parts of a Presentation**
- **FAT-P**
- **PowerPoint Presentations**
- **The Use of Colors, Visuals, & Graphs**
- **Body Language**
- **Engaging Audience**
- **Handling Q&As**
- **Do's & Don'ts**
- **Presentation Hacks**

## Who Should Attend:

This workshop is meant for all professionals of all levels.

## Course Duration:

1 Day

Get in touch



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# Strategic Planning

Strategic planning is crucial for the success of any business. It draws the map for the business to follow and to course-correct when needed. In this training, you will get to know how to put a smart strategic plan for your organization, department, or business unit.



STRATEGIC  
PLAN

**Course No.:**  
K606

## Course Objectives:

Upon completion of these course, you should be able to:

- Understand what is meant by strategic planning
- Understand the benefits of planning
- Determine formal and informal planning
- Differentiate between strategic & operational plans
- Differentiate between specific & directional plans
- Develop a SWOT analysis
- Develop a TOWS matrix
- Align planning & objectives

## Course Outline:

- What is Strategic Planning?
- Benefits of Planning
- Formal vs Informal Planning
- Strategic vs Operational Plans
- Specific vs Directional Plans
- Strategic Analysis (SWOT & TOWS)
- Planning & Objectives Alignment

## Who Should Attend:

This workshop is meant for seniors and managers.

## Course Duration:

1 Day

Get in touch



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# Contemporary Management

As a manager, you need to acquire a certain set of skills and attitudes to be able to manage your team and drive them to success. A well-trained manager can put effective strategic plans, enhance productivity, improve retention of his talented people, and build a good morale within their teams. This training is meant to help participants understand and master how to become more confident and proactive leaders.



**Course No.:**  
K607

## Course Objectives:

Upon completion of these course, you should be able to:

- Identify management levels & skills
- Understand manager's functions
- Know differences between efficiency & effectiveness
- Set strategic plans
- Develop SWOT Analysis
- Use TOWS Matrix
- Manage and motivate teams effectively
- Identify stages of team development & growth
- Handle team conflicts
- Take decisions smartly
- Solve problems effectively
- Identify types of control & monitoring
- Evaluate and compensate team members

## Course Outline:

- **Managers & You**
- **Management Levels, Skills, & Functions**
- **Strategic Planning**
- **Managing & Leading Teams**
- **Motivating Teams**
- **Time Management**
- **Decision Making & Problem Solving**
- **Controlling & Monitoring**
- **Management by Objectives & OKRs**

## Who Should Attend:

This workshop is meant for managers and senior level.

## Course Duration:

4 Days

Get in touch



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# Leadership

Strong leadership defines the success of any organization and personal leadership is essential to any individual success. Leading teams effectively is challenging and a serious responsibility yet a great opportunity. In this training, you will learn how your own leadership traits can improve your productivity and your team's whole performance while fostering an atmosphere of trust, support, and open communication.



## Course No.: K608

### Course Objectives:

Upon completion of these course, you should be able to:

- Understand what makes a leader
- Identify leadership styles
- Know the steps of strategic planning
- Understand stages of developing a team
- Identify different roles within a team
- Delegate effectively
- Motivate your team members
- Handle conflicts professionally
- Communicate effectively
- Deal with and foster change

### Course Outline:

- Defining Leadership
- Leadership Styles
- Strategic Planning
- Stages of Team Development
- Team Roles
- Delegation
- Importance of Motivation
- Conflict Management
- Effective Communication
- Change Management

### Who Should Attend:

This workshop is important for all professionals of all levels with special focus on managerial positions.

### Course Duration:

3 Days

Get in touch



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# Performance Management (OKR)

Ambitious Visions without SMART Goals and Objectives is just another Dream. Objectives and Key Results is a systematic and organized approach that enables you set goals to yourself and your team aligned with the whole organization with the purpose of attaining the best possible results from the available resources.



**Course No.:**  
K610

## Course Objectives:

Upon completion of these course, you should be able to:

- Understand why corporate objectives are relevant to all managers
- Cascade department or business unit objectives to the corporate wide goals
- Set SMART objectives to your team members
- Use Balanced Scorecard
- Measure the achievement of objectives

## Course Outline:

- **Corporate Goals**
- **Department/Business Unit Objectives**
- **Individual Objectives**
- **Alignment of Objectives**
- **SMART Objectives**
- **Key Results**
- **Balanced Scorecard**
- **Measuring Objectives**
- **OKR Life Cycle**
- **Reviewing Performance**

## Who Should Attend:

This workshop is meant for seniors and managers at all levels.

## Course Duration:

1 Day

Get in touch



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# Change Management

Change is inevitable in any business. That's why adopting a proactive approach in dealing with change is a must, especially in today's ever-changing and dynamic business atmosphere. In this training, you will get an extensive knowledge of the change process. You will learn about the need for change, how people respond to it, and how to handle its impact.



**Course No.:**  
K611

## Course Objectives:

Upon completion of these course, you should be able to:

- Understand the need for change
- Identify the change process
- Handle people resisting change
- Deal with change barriers
- Implement change effectively
- Lead people through change

## Course Outline:

- What is change?
- The Need for Change
- Change Process
- Handling Change
- Implementing Change
- Change Barriers
- Strategic Thinking

## Who Should Attend:

This workshop is important for all seniors and managerial positions.

## Course Duration:

1 Day

Get in touch



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# Interviewing Skills

Since employees are the most valuable assets of any organization, hiring the best fit is an essential role for any manager. Accordingly, having adequate interviewing skills is not optional anymore. In this training, you will learn how to effectively select the right candidate for the job/training.



## Course No.: K612

### Course Objectives:

Upon completion of these course, you should be able to:

- Understand the benefits of interviewing
- Determine various types of interviewing
- Use the STARS technique
- Ask the right questions
- Administer interviews effectively
- Avoid interviews' errors
- Know effective interviewing tips

### Course Outline:

- **Benefits of Interviewing Skills**
- **Interviewing Types**
- **Situational Interview**
- **Behavioral Interview**
- **Job-Related Interview**
- **Stress Interview**
- **STARS Technique**
- **Types of Questions**
- **Ways to Administer Interviews**
- **Interview Errors**
- **Tips for Effective Interviewing**

## Who Should Attend:

This workshop is meant for seniors and managers.

## Course Duration:

1 Day

Get in touch



## Egypt

Address: 42R, El-Safa Tower, Abd El Hameid Gouda Al Sahar, 6th Sector, Zahraa El Maadi, Cairo.

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# Marketing for Non-Marketers

Good knowledge of Marketing promotes better decision making and better planning resulting in better outcomes. In this training, you will learn about the basics of marketing and how to incorporate it into your daily work activities.



**Course No.:**  
K613

## Course Objectives:

Upon completion of these course, you should be able to:

- Understand the meaning & importance of marketing
- Develop a market and competition analysis
- Identify market segments
- Identify different types of marketing
- Understand the 7 Ps and link them to your business
- Understand the value proposition
- Develop a marketing plan
- Evaluate return on marketing investments

## Course Outline:

- **Why Marketing for Non-Marketers**
- **Market & Competitor Analysis**
- **Segmentation**
- **Marketing 7 Ps**
- **Value Proposition**
- **Marketing Plan**
- **Marketing ROI**

## Who Should Attend:

This workshop is meant for all professionals of all levels with special focus on Seniors and Managers.

**Course Duration:**  
2 Days

Get in touch



**Egypt**

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# Conflict Management

Conflict Management is an essential part of any business day-to-day activities. It is the method of identifying and handling conflicts sensibly, fairly, and efficiently in professional as well as personal life. Avoiding or confronting conflicts is not always productive for moving a team or organization forward. This training helps trainees understand how to resolve conflicts professionally and how to take advantage of healthy conflicts within a team.



**Course No.:**  
K615

## Course Objectives:

Upon completion of these course, you should be able to:

- Understand causes of a conflict
- Identify conflict dimensions
- Identify conflict levels
- Know how to handle different conflicts
- Realize skills required to resolve conflicts

## Course Outline:

- What is Conflict?
- Conflict Concepts
- Conflict Causes
- Conflict Dimensions
- Conflict Levels
- Conflict Handling
- Conflict Prevention/Triggering

## Who Should Attend:

This workshop is meant for all professionals of all levels.

## Course Duration:

1 Day

Get in touch



## Egypt

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