



## CURRICULUM DESCRIPTION

# W&WW Application Specialist

### Tuition Fee

\$2,650 per student

Tuition is at no cost to Channel Partners. See [“Training Class Cancellation Policy”](#) for details.

### Description

This Program is designed to provide students with the technical expertise to support the installation of ABB LV Drives. The W&WW Application Specialist level of training focuses on machinery, pump/fan, and other light industrial drive applications.

### Goals

The goals of this Program focus on participants gaining expertise in supporting water & wastewater applications. The main focus is for participants to be the first line of application support. The W&WW Application Specialist’s primary role is to be the technical expert in selection, use and application of automation equipment. Also, participants will support the installation and commissioning of applications using automated controls. The W&WW Application Specialist will gain expertise in providing training to operators and those tasked with maintaining pumping equipment using ABB drive products.

### Training Type and Duration

This program is approximately 17.5 hours of Online Learning course modules and 1.5 days of Instructor Led Training.

### Student Profile

The student must be qualified in the use of pumping and electrical control equipment. A background in the application of water and wastewater pumping systems is helpful, but not required.

### Training locations and scheduling

This Live Remote/Classroom Training Program is offered by our training facility in New Berlin, WI. Please visit the Drives, PLC and Motion Training Schedule for a list of upcoming classes.

### Prerequisites

Before enrolling in the classroom ILT, students must first complete the following:

- ACQ580 Authorized Startup program or ACQ580 Installation & Commissioning program

### Learning Objectives

The objective of this Program is to teach students the selection, packaging (solution), application, commissioning, configuration, basic troubleshooting, and first level tech support of the defined drive products.

Upon successful completion of this Program, students will obtain the following:

- Apply basic safe work practices for installation and commissioning of LV Drives
- Understand the principles related to application of motors, pumps and drives
- Recognize opportunities for improvements in existing water & wastewater systems
- Determine what information is needed to properly size equipment for the application
- Provide recommendations and technical expertise in the selection of motors, pumps and drives for a pumping application
- Program and utilize standard software features of the drives (covered in this training)
- Perform basic fault diagnostics, troubleshooting and on-site correction of installation issues

### Student Materials

Equipment will be shipped out to Live Remote students before the class by ABB.

Student will receive upon completion of the instructor-led class:

- Student manual with all presentations and exercises

## Agenda

### Prerequisites

Title
WWW App Specialist PreReq Quiz
W&WW App Spec Pre-Assessment
The Seven Steps That Save Lives -LV
LV_Drive_Safety Presentation
Drives 101 Basic AC Drive Features
AC Motors 101
Machine Safety Standards
BestPractices-Wiring&Grounding
Arc Flash
Codes&StandardsOverview
Enclosure NEMA and IEC
Enclosure NEMA and IEC - Exam
Harmonics 101a
Harmonics 101b
Harmonics 101c
Harmonics 102a
Harmonics 102b
Harmonics 102c
AC Drive Control Methods 101
Basic Motor and Softstarter Theory
Harmonics vs EMI RFI EMC
Long Motor Cable Runs
ACQ580-31 WWW Product Overview
WWW Spec. Elec & Mech Safety
WWW Spec. PPE Confirmation

### Instructor Led Training

#### Day 1

8:00 AM	-	8:15 AM	Introduction / About This Course
8:15 AM	-	9:00 AM	Intro_to_WWW_App_Spec_Tr
9:00 AM	-	10:30 AM	ACQ580 Product Presentation
10:30 AM	-	10:45 AM	Break
10:45 AM	-	11:15 AM	Bluetooth/Drivetune
11:15 AM	-	11:30 AM	DriveComposerEntryPro
11:30 AM	-	12:00 PM	ACXx80 Drive Composer Intro Lab
12:00 PM	-	1:00 PM	Lunch
1:00 PM	-	1:30 PM	ACXx80 Drive Composer Intro Lab cont.
1:30 PM	-	3:00 PM	PED2018 ACQ580 Functionalities Lab
3:00 PM	-	3:15 PM	Break
3:15 PM	-	3:45 PM	ACQ580_Multi_Pump_application
3:45 PM	-	5:00 PM	ACQ580 Multipump hands-on

#### Day 2

8:00 AM	-	8:30 AM	Harmonics Calculator Tool
8:30 AM	-	8:45 AM	Water One Line for Harmonic Analysis
8:45 AM	-	9:30 AM	Harmonics Calc Tool – Lab Exercise
9:30 AM	-	9:45 AM	Break
9:45 AM	-	10:00 AM	Focus_on_Connectivity
10:00 AM	-	10:45 AM	Ethernet Comms & DriveBrowser
10:45 AM	-	11:00 AM	Intro to AP_ACXx80
11:00 AM	-	12:00 PM	AP Programming Lab Exercise & Review
12:00 PM	-	1:00 PM	Lunch
1:00 PM	-	1:30 PM	Virtual – Water World (Water / WW App)
1:30 PM	-	2:15 PM	ACx580_Installation_Pitfalls
2:15 PM	-	2:20 PM	Summary / Review / Class Survey

