

# 2012 COURSE DESCRIPTIONS & SCHEDULE



## Basic PLC Training

The purpose of the Basic PLC Training Course is to introduce an individual to the basic concepts of the Omron PLC using a mixture of lectures and hands on labs. This course is designed for those with little or no prior PLC experience. The topics covered are; the history of the Omron PLCs, wiring to the PLC, I/O addressing, basic functions of an Omron PLC (SCAN), the design, entering and debugging of a basic ladder logic program, CX-Programmer software, on-line editing and basic trouble shooting techniques. The hardware used in the class will be the Omron CJ1M PLC. The 2 day course will run from 9am till 4pm each day. A good understanding of the Windows operating system will be assumed. A Laptop computer with CX-Programmer V8.0 installed and a serial convertor is required.

## Advanced PLC Training

The purpose of the Advanced PLC Training Course is to introduce an individual to the more advanced concepts of a PLC using a mixture of lectures and hands on labs. The topics that are covered in the Advanced PLC training course are as follows: BCD, DEC, HEX and Binary conversions, PLC instructions including MOV, ++B, --B, CMP, >, <, SFT, DIFU, KEEP, SET, RSET, +B, -B, +BL, SCL and indirect addressing. The hardware used in the class will be the Omron CJ1M PLC. The 2 day course will run from 9am till 4pm each day. You must have a good understanding of the Windows operating system and the CX-Programmer software. A Laptop computer with CX-Programmer V8.0 installed and a serial convertor is required.

## PLC Function Block Class

is to introduce an individual to the basic concepts of a Function Block (FB) using a mixture of lectures, hands on labs, and simulation software. This course is designed for the individual with little or no prior FB programming experience. The topics that are covered in the FB training course are as follows: description of a function block, advantages of using a function block, different component names within a function block, ladder function blocks, structured text function blocks, and different programming formats. You must have a good understanding of the Windows operating system and the CX-Programmer software. A Laptop computer with CX-Programmer V8.0 installed is required.

## Yaskawa V1000 Class

is to introduce an individual to the basic concepts of a Variable Frequency Drive (VFD) using a mixture of lectures, hands on labs, and simulation software. This course is designed for the individual with little or no prior VFD experience. The topics that are covered in the course are as follows: drive sizing based upon Horsepower of the motor or Kilowatts of the motor, installation practices, specifications of the VFD, electrical installation including wiring, programming of the most common parameters, troubleshooting, Drive Wizard Plus software use, and sample application examples. A good understanding of the Windows operating system will be assumed. A Laptop computer with Drive Wizard Plus installed is required.

## Billing and Cancellation Policy

*Lakewood Automation reserves the right to cancel or change training dates and will not be held liable for any expenses, loss of income, or inconvenience caused.*

*All classes will be invoiced or cancelled 7 days before the class begins. If you need to cancel, it must be done before this date. All No Charge classes will be billed \$200 for a no show or cancelling within 48 hours of the class. If you attend the class there will be no charge.*

## G P P r o E x B a s i c s

is to introduce an individual to Proface's GProEx HMI software. This course is designed for those with no prior experience with GProEx. The topics covered are; Pushbuttons, Lights, Text, Time Display, Graphs, Switches, Changing screens, Data displays and Entries. A good understanding of the Windows operating system will be assumed. A Laptop computer with the latest version of GProEx installed is required. 9am till 2pm.

## G P P r o E x I n t e r m e d i a t e

is to expand upon the topics from GProEx Basics and covers: Alarms, Passwords, Recipes, Sampling, Trending. You must have a good understanding of the Windows operating system and GProEx Basics. A Laptop computer with the latest version of GProEx installed is required. 9am till 2pm.

## P r o S e r v e r E x

is to introduce an individual to Proface's ProServerEx Data Management software. This hands on class will cover the following topics: How ProServerEx Works, Configure Nodes, Symbols, Monitor Live Data, Triggering Actions, DDE link to Excel, Create an Excel Report. You must have a good understanding of the Windows operating system and the GProEX Software. A Laptop computer with the latest GProEx and ProServerEx is required. 9am till 3pm.

## G P P r o E x L o g i c

is to introduce an individual to GProEx internal logic. This course is designed for those with basic experience using GProEx. The topics covered are; Ladder Logic, Symbol Variables, configuring I/O. You must have a good understanding of the Windows operating system and GProEx Basics. A Laptop computer with the latest version of GProEx installed is required. 9am till 3pm.

Description	Dates
Basic PLC	Mar 7th & 8th
GProEx Basics	Mar 21st
GProEx Intermediate	April 4th
ProServerEx	April 18th
GProEx Logic	May 2nd
V1000 VFD	May 16th
Advanced PLC	May 30th & 31st
PLC Function Block	Jun 13th
GProEx Basics	Jun 27th
GProEx Intermediate	Jul 11th
ProServerEx	July 25th
GProEx Logic	Aug 8rd
V1000 VFD	Aug 15th
Basic PLC	Sep 5th & 6th
GProEx Basics	Sep 19th
GProEx Intermediate	Oct 3rd
ProServerEx	Oct 17th
GProEx Logic	Oct 31st
V1000 VFD	Nov 14th
Advanced PLC	Nov 28th & 29th
PLC Function Block	Dec 12th

Check our website for latest updates.  
[www.lakewoodautomation.com](http://www.lakewoodautomation.com)

**TO REGISTER, VISIT US AT  
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## 2012 TRAINING SCHEDULE



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