

# Basic Programmable Logic Controllers

July 23<sup>rd</sup> - 24<sup>th</sup>, 2009  
8:00 am - 5:00 pm

- ✚ This 2-day course is designed to give students a good understanding of Programmable Logic Controllers (PLC's). This course places a heavy emphasis on understanding the logic and operation of the PLC. The course also typically covers installation and troubleshooting.
- ✚ Taught using Allen-Bradley SLC 500 series PLC 's and RSLogix 500 programming software.
- ✚ 75% hands-on. Maximum of two students per training station.
- ✚ This course is oriented towards beginners. A basic familiarity with computers and electrical systems is helpful, but not essential.
- ✚ Limited to 6 students per class to ensure maximum training quality.

## Typical Students

- ✚ Technicians
- ✚ Electricians
- ✚ Maintenance Personnel
- ✚ Engineers
- ✚ Operators
- ✚ Managers and Supervisors

## Course Overview and Topics

This course covers PLC programming, installations, and troubleshooting. Emphasis is placed on logical thinking and efficient, logical program development.

Key concepts covered in the basic PLC course include: Programming AND / OR conditions, Seal / Latch instructions, Examine ON / Examine OFF instructions, PLC program scan cycle, program documentation, batch programming techniques, understanding PLC addressing, common program problems and bugs, safety considerations, programming counters and timers, comparison statements, numerical / integer operations, Latch / Unlatch instructions, hardware considerations, diagnostics and troubleshooting, emerging trends and capabilities.

- ✚ Brief history of PLC's
- ✚ Relays vs PLC's
- ✚ PLC processor operation
- ✚ PLC I/O addressing
- ✚ AND/OR programming
- ✚ XIC and XIO instructions
- ✚ Sealing bits / latch programming
- ✚ RS Logix software tool
- ✚ Safety considerations
- ✚ PLC timers & counters
- ✚ Latch & unlatch statements
- ✚ Diagnostics & troubleshooting
- ✚ Going online, uploading & downloading

Cost: \$500 per attendee. **Registration closes Tuesday, July 21, 2009.** Please mail or fax registration form. Mail or bring check to first day of class. Make checks payable to HCC- FLATE.

Mail to: Lourdes Fedna  
FLATE – HCC Brandon  
10414 E Columbus Dr.  
Tampa, FL 33619

Location and Directions: Hillsborough Community College – Brandon. For Directions Visit [www.fl-ate.org/contact/directions.html](http://www.fl-ate.org/contact/directions.html)

For more information and to reserve you seat, call us at 813-259-6577, FAX: 813-259-6576 or email us [lfleurima@hccfl.edu](mailto:lfleurima@hccfl.edu) .



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## REGISTRATION FORM

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PLEASE FILL OUT FOR EACH PARTICIPANT

### GENERAL INFORMATION

REGISTRATION DATE: \_\_\_\_\_

COURSE NAME: Basic PLC

COURSE DATE: July 23-24, 2009

### PARTICIPANT INFORMATION

COMPANY: \_\_\_\_\_

FIRST NAME: \_\_\_\_\_ LAST NAME: \_\_\_\_\_

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ CITY, STATE: \_\_\_\_\_

ZIP CODE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

