



## Advanced Teach Pendant Programming

### COURSE OVERVIEW

Advanced programming is the next step after an operation and programming class. This course will delve into more complex and advanced programming concepts as well as draw on topics from the previous classes to develop a more complex scenario. Students will be given the task of creating all the necessary programs to integrate robots into an example cell. This class offers a large amount of robot time to properly apply all concepts covered. Students are expected to extrapolate on the concepts presented in the class to utilize the items presented in their unique applications.

The course consists of lectures, chapter reviews, demonstrations, and a series of lab exercises designed to reinforce what the student has learned. In addition to lab exercises, a pre-test and a post-test are used to measure mastery of objectives.

## 1.1 Course Goal

- Create User and Tools Frames
- Start production via PNS, RSR and Style method
- Manipulate programs using Tool and User Offsets, Program shift and Program adjust tools.
- Identify Program Development issues
- Set Robot Payload
- Programming using Argument registers
- Set the Robot payload
- Motion options, create user alarms and Prompt

## 1.2 Objectives

### • Learn about the different Frames Tyes

- Understand a 3D Cartesian Coordinate System
- Create Tool Frames
- Create User Frames
- Create Jog Frames
- Save Frame Data

### • Adjust a program using the UTILITIES

- Coordinates offset Function
- Tool Frame Offset
- User Frame Offset
- Program Shift
- Program Adjust

### • Robot and System Setup

- Payload
- Auto Payload ident
- Setup Collision Guard
- Configuration Screen Items

boxes

- Setup the collision guard
- Part sizes, Reference positions
- Create mixed logic instructions and execute programs in background
- Condition Monitors and Multi-tasking.
- Use the I/O's of User Operator Panel
- Crash Recovery: Manually and automatically.

### • Mixed Logic and Background Logic

- Mixed Logic Instructions
- Create a Mixed Logic Instruction
- Understand Background Logic

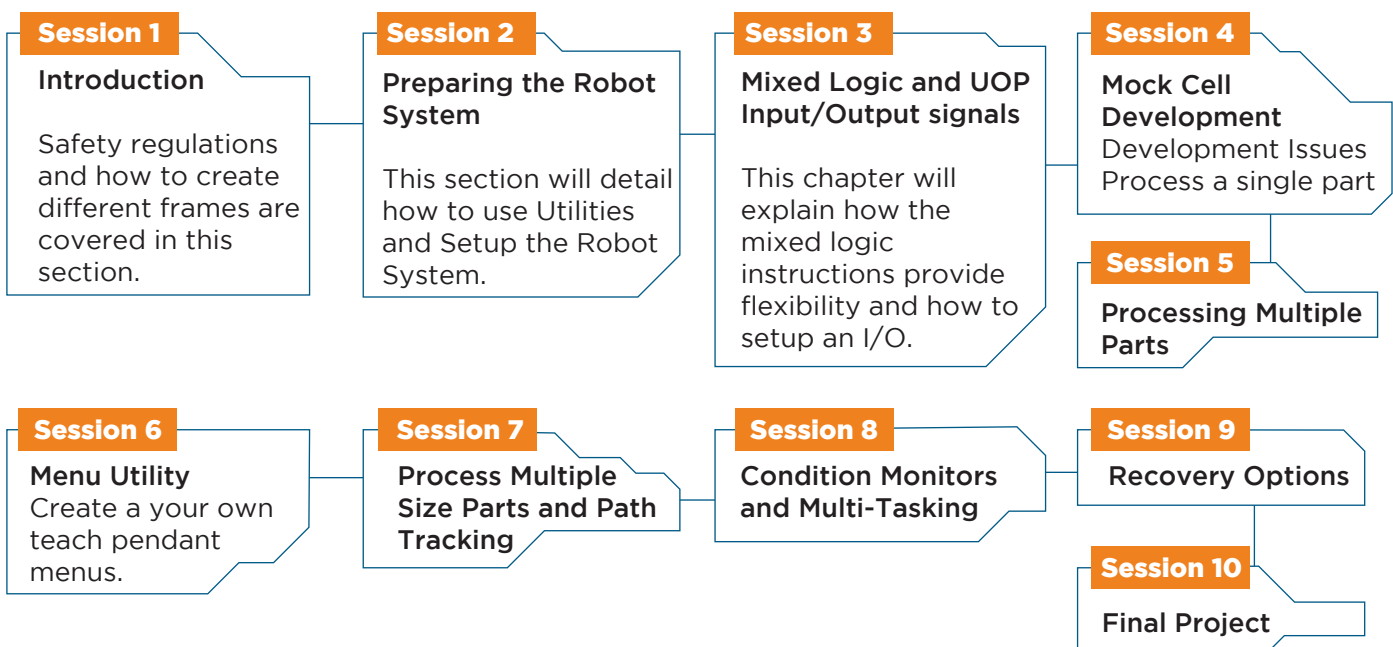
### • User Operator Panel and Operations Start-up Checks

- Utilize UOP I/O
- Remotely Select and Execute Programs
- Star-Up Checks

### • Developmental Issues

- Task Analysis
- Operating Procedures
- I/O Structure
- Model the Application
- Write a code

## 1.3 Course content



LOS CURSOS SERÁN IMPARTIDOS EN ESPAÑOL