Master Syllabus

EET 2282 - Advanced Programmable Logic Controllers

Division: Science, Mathematics and Engineering

Department: Electronics Engineering Technology

Credit Hour Total: 3.0   **Lecture Hrs:** 2.0 **Lab Hrs:** 2.0

Prerequisite(s): EET 2281

Date Revised: October 2013

Course Description:

Demonstrate the use of control and set analog I/O, bit and project based programming, control servos with analog & High Speed Counter (HSC) cards, the use of ethernet network for programmable logic controllers (PLCs), the interaction between PLCs and sensors, installation and repair. Two classroom, two lab hours per week.

General Education Outcomes:

▫ Critical Thinking/Problem Solving Competency

Course Outcomes:

Troubleshooting
Identify and correct operation falilures.

    Assessment Method: Performance appraisals
    Performance Criteria: Identify and correct per 5 x 5 rubric, achieving 18 of 25

Control Network Implementation
Use control I/O, servos, the ethernet network, and sensors to exercise the PLC.

    Assessment Method: Locally developed exams
    Performance Criteria: Earn 70% or higher

Develop Programs
Develop programs using bit and project based programming.

    Assessment Method: Locally developed exams
    Performance Criteria: Earn 70% or higher

Outline:

Control & set analog I/O
Bit based programming
Project based programming
Control servos with analog & HSC card
Ethernet network PLCs
Installation & repair
Analog install and commission
Interface with sensors to feedback adjustments