

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: TEED 264

Credit Hours: 4-3-3

Course Title: Intermediate Siemens Programmable Logic Controllers (PLCs) and Lab

Course Pre-requisite: TEED 260

Textbook(s): Amatrol/Sivad. Amatrol eLearning License Amatrol All and AME21 Libraries 4 Month. ISBN: Amatrol Prod# 206-WSC-IND4

Course Description: An intermediate course in programmable logic controllers (PLCs) covering programming and maintaining PLC systems, analog sensors, remote input/output, and industrial communications networks. Lab activities are based on Siemens 300 Series systems to provide practical experience with PLCs.

Learning Outcomes:

At the end of the course, the student will:

- A. Identify and explain the operation and application of Event Sequencing, Program Control Instructions, and Math and Data Move Instructions;
- B. interpret and explain Siemens HMI applications
- C. Identify and explain Analog Inputs and Outputs
- D. interpret and explain industrial communication systems as applied to PLC applications.

To achieve the learning outcomes, the student will or will be able to:

(The letter designations at the end of each statement refer to the learning outcome(s).)

1. Identify and describe the function of Event Sequencing: (A)
2. Identify and describe the function of Program Control Instructions: (A)
3. Identify and describe the function of Math and Data Move Instructions: (A)
4. Identify and describe the operation of Siemens HMI applications; (B)
5. Identify and describe the function of analog sensors and their operation methodology: (C)
6. setup, maintain, troubleshoot, and connect analog sensors and output devices as used in PLC systems: (C)
7. Identify and describe the operation of communications between networked PLCs; (D) and
8. setup, maintain, and troubleshoot communications between networked PLCs; (D)

Course Requirements: Complete all homework assignments, lecture tests and final exam.

Course Grading Scale:

- 90 – 100 = A
80 – 89 = B
70 – 79 = C

60 – 69 = D
0 – 59 = F

Attendance Policy: The college attendance policy is available at <http://www.bpcc.edu/catalog/current/academicpolicies.html>

Course Fees: This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, software licenses, certification exams, and/or clinical fees.

Nondiscrimination Statement: Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

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