COURSE SYLLABUS FOR

ADVANCED PROGRAMMABLE LOGIC CONTROLLERS

ELMT 2339

INSTRUCTOR: Jim Traylor Office Phone: 335-6832

COURSE NUMBER: ELMT 2339

CREDIT HOURS: 3 (3/0)

PREREQUISITE: ELPT 2419 Programmable Logic Controllers

CATALOGUE DESCRIPTION: Advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting ladder logic, and interfacing to equipment. (SCANS 3,5,8,9)

TEXTBOOK: GEFanuc PLC Software

SUPPLIES: None

LEARNING OUTCOMES:

After completing this course, the student should be able to demonstrate competency in:

- Develop ladder logic to utilize advanced PLC functions; compose a ladder logic program to demonstrate an advanced industrial control application; apply advanced programming techniques for specialized applications. The effective and efficient use of various meters; including volt, amp, and ohm meters

COURSE REQUIREMENTS:

- Complete all scheduled homework
- Complete all scheduled programming
- Complete tests
- Complete a final test

METHODS OF EVALUATION:

GRADING SCALE

POINTS	GRADE
90-100	A
80-89	B
70-79	C
65-69	D
0-64	F

WEIGHT OF COURSE REQUIREMENTS

AREA	GRADE WEIGHT
LAB ASSIGNMENTS	25%
TESTS	25%
FINAL TEST	25%
PROFESSIONALISM	25%
TOTAL	100%

ATTENDANCE POLICY\PROFESSIONALISM POLICY

Attendance is the greatest predictor of your success. Your attendance at EVERY ONE of the classes and labs is important and expected. A substantial grade penalty will be assessed to late work; including homework, lab assignments, and test. The "Professionalism Grade" will be determined by such factors as attendance, tardiness, class participation, and other classroom factors.

Advanced Programmable Logic Controllers

SYLLABUS CHART

Item(Name)	Type	Description	Due
1	Discussion	Review Basic of PLC's	TBA
2	Discussion\Labs	ANALOGUE INPUTS AND OUTPUTS	TBA
3	TEST		TBA
4	Discussion\Labs\Report\ Quiz	Proportional–integral–derivative controller (PID)	TBA
5	Discussion\Labs\Quiz	COMMUNICATION/READ HARD WIRED	TBA
6	Discussion\Labs\Quiz	COMMUNICATION/ READ-WRITE HARD WIRED	TBA
7	Discussion\Labs\Quiz	COMMUNICATION/ READ-WRITE HARD WIRED\RADIO	TBA
8	TEST		TBA
9	Discussion\Labs\Quiz	ARRAY….OC WATER STATION	TBA
10	Discussion\Labs\Quiz	HMI SCADA	TBA
11	Discussion\Labs\Quiz	CIMPLICITY(HMI SOFTWARE)…GRAPHICS	TBA
12	Discussion\Labs\Quiz	LOCAL HMI	TBA
13	Discussion\Labs\Quiz	Wireless Control	TBA
14	Final Test		TBA

Special Needs

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Learning Resource Center (Library)

The Library, known as the Learning Resources Center, provides research assistance via the LRC's catalog (print books, videos, e-books) and databases (journal and magazine articles). Research guides covering specific subject areas, tutorials, and the "Ask a Librarian " service provide additional help.

Student E-mail

Please access your Odessa College Student E-mail, by following the link to either set up or update your account: http://www.odessa.edu/gmail/. **All assignments or correspondence will be submitted using your Odessa College email.**

Student Portal

Please access your Odessa College Student E-mail, by following the link to either set up or update your account: http://www.odessa.edu/gmail/. **All assignments or correspondence will be submitted using your Odessa College email.**

Important School Policies

For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the Odessa College Student Handbook.