



COURSE SYLLABUS FOR

# INDUSTRIAL ELECTRONICS

ELMT 2433

INSTRUCTOR: Doug Hollowell Office Phone: 335-6832 Cell Phone: Office Hours:

COURSE NUMBER: ELMT 2433

CREDIT HOURS: 4 (3/3)

PREREQUISITE: NONE

CATALOGUE DESCRIPTION: Devices, circuits, and systems primarily used in automated manufacturing and/or process control including computer controls and interfacing between mechanical, electrical, electronic, and computer equipment. Includes presentation of programming schemes. (SCANS 3,5,8,9)

TEXTBOOK \_\_\_\_\_ LAB MANUAL: \_\_\_\_\_

SUPPLIES:

1. Calculator
2. Digital VOM meter
3. Other

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

- describe how electronic input and output circuits are used to control automated manufacturing
- describe and/or process systems
- identify basic elements used for input, output, timing, and control
- define how programmable electronic systems use input data to alter output responses
- troubleshoot a representative system
- demonstrate how system operation can be altered with software programming.

COURSE REQUIREMENTS:

- Complete all scheduled homework
- Complete all scheduled labs
- Complete written\lab tests
- Complete a written\lab 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.

# INDUSTRIAL ELECTRONICS

## SYLLABUS CHART

Item(Name)	Type	Description	Due
1	Discussion\Lab\Quiz	Number Systems and Codes	TBA
2	Discussion\Lab\Quiz	Digital Signals and Switches	TBA
3	Discussion\Lab\Quiz	Logic Gates	TBA
4	Discussion\Lab\Quiz	Logic Devices	TBA
5	T E S T		TBA
6	Discussion\Lab\Quiz	Gates and Uses	TBA
7	Discussion\Lab\Quiz	Arithmetic Operations	TBA
8	Discussion\Lab\Quiz	Code Converters	TBA
9	Discussion\Lab\Quiz	Multiplexers\Demultiplexers	TBA
10	T E S T		TBA
11	Discussion\Lab\Quiz	Logic Families	TBA
12	Discussion\Lab\Quiz	Flip Flops	TBA
13	Discussion\Lab\Quiz	Registers	TBA
14	Discussion\Lab\Quiz	Digital Design	TBA
15	Discussion\Lab\Quiz	Counters\Shift Registers	TBA
16	T E S T		TBA
17	Discussion\Lab\Quiz	555 Timer	TBA
18	Discussion\Lab\Quiz	Microprocessor Fundamentals	TBA
19	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.**

## **Technical Support**

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at [https://www.odessa.edu/dept/ssc/helpdesk\\_form.htm](https://www.odessa.edu/dept/ssc/helpdesk_form.htm).

## **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](#).