MIDLAND COLLEGE
SYLLABUS
INTC 2336
DISTRIBUTED CONTROL AND PROGRAMMABLE LOGIC
2-2

Course Description:
An overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. Functions of digital systems in a process control environment. Student will configure programmable logics controllers (PLC's) to perform various tasks; explain how programmable logic controllers control the process environment; operate and troubleshoot digital systems. The laboratory exercises required are part of this course.

Students MUST actively participate by completing an academic assignment required by the instructor by the official census date. Students who do not actively participate in an academically-related activity will be reported as never attended and dropped from the course.

Prerequisite: INMT 1317 Automation or instructor permission.

Text, References and Supplies
Programmable Logic Controllers, Frank Petruzella McGraw-Hill/Irwin, 4e, 2011.
ISBN-13: 978-0-07-351088-2.

Learning Objectives:
1. Identify methods of electromechanical control and classify as open or closed loop.
2. Understand Micro controller logic and slot addressing schemes.
3. Learn math functions as well compare functions.
4. Use exercises using Jumps, Subroutines, and Sequencers.

Students may perform the following tasks in order to maintain safe lab and classroom spaces:
- Participate in shop and classroom maintenance which may include, but not limited to sweeping, mopping, disposing of trash, cleaning work benches, organize tools and equipment, organize tool room, disinfect classroom tables and chairs.
- Disassemble discontinued lab training vehicles or equipment for salvage.
- Repurpose lab vehicles to be utilized in lab assignments.
- Other course related tasks as assigned by instructor.

Course Policies:

Each student is expected to act in a safe manner. The presence of exposed mechanical and electrical hazards makes unsafe acts inexcusable.

I expect that any student would never knowingly violate the College's policy on academic honesty. Please assume that all assignments require only individual efforts unless the instructor specifically requests team or group collaboration.

Make-up work is allowed only if pre-approved, or the student circumstances are deemed an emergency, by the instructor. Points for participating in class discussions and group exercises cannot be made-up.

Drop Policy:

It is the student's responsibility to drop this course if circumstances develop that prevents his/her completion of the course. Instructors no longer have the prerogative of awarding the letter grade of "W".

Evaluation of Students:

Participation		35%
Quizzes		25%
Lab		15%
Final Exam		25%
	Total	100%
90 and above	A	
80-89	B	
70-79	C	
60-69	D	
59 and below	F	

Course Schedule: This class meets for 3 lecture hours.

SCANS Information: SCANS skills are taught and/or reinforced in energy/petroleum courses. The student must locate, read, interpret and understand instruction information and direction materials. The participant must communicate thoughts, ideas and information through verbal and written mediums. Practical arithmetic and mathematics will apply continually throughout energy/petroleum training. Listening, interpreting, and responding to verbal communications and instructions as well as speaking in response to questioning will be a daily involvement. Thinking, reasoning, visualizing and problem solving are required assets to the energy/petroleum field. The student/participant must display responsibility, self-management and honesty.

Administrative Information: Curt Pervier, Dean of Applied Technology

                                                    Lisa Hays, Division Secretary
                                                    Office: Rm 143 TC
                                                    Phone: (432) 685-4676
                                                    Fax: (432) 685-6472

Students should feel free to contact the instructor at any time. Appointments are encouraged for advising and planning the most appropriate or beneficial course work.

*Syllabus subject to change as deemed necessary by the instructor to ensure learning objectives and course goals are met.

Non-Discrimination Statement
Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individual has been designated to handle inquiries regarding the non-discrimination policies:
Tana Baker
Title IX Coordinator/Compliance Officer
3600 N. Garfield, SSC 131
Midland, Texas 79705
(432) 685-4781
tbaker@midland.edu
For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

Americans with Disabilities Act (ADA) Statement:
Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit www.midland.edu/accommodation and complete the Application for Accommodation Services located under the Apply for Accommodations tab. Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a "Notice of Accommodations" letter will be sent to instructors outlining any reasonable accommodations.