MIDLAND COLLEGE SYLLABUS INTC 1325

Instrument Hardware Installation I

2-2

Course Description:

Installation of instrumentation equipment into a process environment using industry standards. Outline the general procedures for installing instrumentation; and mount an assigned series of instrumentation devices. 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

<u>Programmable Logic Controllers</u>, Frank Petruzella McGraw-Hill/Irwin, 4e, 2011. ISBN-13: 978-0-07-351088-2.

Learning Objectives:

- 1. Interpret process flow diagrams and piping and instrumentation drawings used in the oil and gas industry.
- 2. Utilize terms and symbols used in instrument installation.
- 3. Identify specific equipment and operating parameters to meet industry standards.
- 4. Interpret diagrams of process control elements in a control loop.
- 5. Demonstrate safety procedures used during cleaning out, isolation, and installation of hardware.

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.

Expectation that student's 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.

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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			<u>25%</u>
		Total	100%
90 and above	A		
80-89	В		
70-79	\mathbf{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, 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.

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*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.