Midland College Syllabus
INMT 2303 – PUMPS, COMPRESSOR, & ELECTROMECHANICAL DRIVES
3.0 Credit Hours (2-2)

Course Description: A study of the theory and operations of various types of pumps and compressors. Topics include mechanical power transmission systems including gears, v-belts, and chain drives.

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.

Text, References, and supplies.

1. INDUSTRIAL MECHANICS, 978-0-8269-3712-4 Albert W. Kemp
2. Industrial Mechanics Workbook,4th Edition, ISBN: 978-0-8269-3713-1

Goals and Objectives: Upon successful completion of the course, students will have the ability to accomplish the following competencies accurately and efficiently: Identify the principals involved in the operation of centrifugal and positive displacement pumps and compressors; explain the function of various components in pumps and compressors, disassemble and reassemble pumps, compressors and mechanical drives, and troubleshoot pumps, compressors and mechanical drives.

Competencies	Purpose and/or sample of real life applications	Projects or supporting laboratory exercises	Used throughout the course
Identify pump and mechanical symbols	Explain their purpose	Will be a daily exercise	Yes
Demonstrate Knowledge of basic pumps used in energy systems.	Design and interpret the functions of the system	Overview and practice using each of these devices	Yes
Demonstrate knowledge of component of the energy system	Identify the functions of each component in the system	Use a laboratory system	Yes
Design a basic energy power system	Demonstrate how a working system operates	Build a working system	Yes
Demonstrate how the circuits work using electrical controls	Demonstrate an electrical circuit	Build a circuit in the lab	Yes
Demonstrate a circuit with manual controls	Demonstrate A manual circuit	Build a circuit in the lab	Yes

Diagnose problems in pumps, compressors, and mechanical devices	Demonstrate how to troubleshoot problems in the system	Use troubleshooting techniques in lab	yes

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.

Student Contributions/Class Policies: The college attendance policy will be strictly adhered. Attendance is critical in this class. Make-up work and exams will be allowed solely at the discretion of the instructor.

1. All necessary safety procedures will be followed in this class.
2. Safety glasses will be worn at all times with live machinery or machine components.
3. Telephones will be turned to SILENT during class.
4. All ear buds, etc., will be put away before class. No Music.
5. For your safety and/or well-being please advise the instructor of any Disabilities or issues that you may have that may affect your College experience.
6. Put away tools, books, and parts, and turn off equipment.
7. Clean your tables and/or workbenches, and replace chairs properly.

Grading/Evaluations of Student:

Attendance and Participation	10%
Quizzes	10%
Homework	10%
Projects/Presentation	20%
Midterm Exam	25%
Final Exam	25%
Total	100%

This course will focus on lecture, hands-on lab work, teamwork, participation, and projects.

- ***All work will be graded on neatness, following directions, on-time delivery, as well as content.***
- Part of the Mid-Term Exam will be the presentation of a Safety Poster
- Make-ups are at the discretion of the instructor. Attendance is a concern in industry, and the college attendance policy is adhered to.

Administrative Information:

Lynn Bryant, Professor, Class Instructor
Rm 122, ATC
(432) 681-6355

Curt Pervier, Dean of Applied Technology
Lisa Hays, Applied Technology Secretary
(432) 685-4676
Fax: (432) 685-6472

Note: Students are encouraged to contact the instructor at any time. However, making an appointment will guarantee the instructor's availability at a specific time.

Syllabus is 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.