

**MIDLAND COLLEGE
SYLLABUS
HART 2436
TROUBLESHOOTING
3-2**

Course Description: An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests. The student will use knowledge gained from previous classes or industry experience in order to improve their skill in determining system problems. **Prerequisites: HART 1441 and HART 1442 or consent of instructor.**

The student will test and diagnose components, systems, and accessories; and exhibit knowledge of system's sequence of operation, accessory applications, and component operation.

Text, References, and Supplies: 1. **REFRIGERATION AND AIR CONDITIONING TECHNOLOGY**, Whitman and Johnson. Current Edition.
2. Industry Literature

Course Goals/Objectives: The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives. (Addendum A.)

- 1.
- 2.
3. Use tables and charts to help troubleshoot equipment
4. Review the use of all test meters for troubleshooting purposes
5. Develop a logic process to follow when troubleshooting
 6. Recognize symptoms of a low charge
 7. Recognize symptoms of an overcharge
8. symptoms of a plugged metering device Recognize
9. Recognize symptoms of a flooded evaporator
10. symptoms of a bad run capacitor Recognize
11. Recognize symptoms of a bad start capacitor
12. Recognize symptoms of a bad compressor
13. Recognize symptoms of a proper charge

Student Contributions and Class Policies:

Each student will spend at least 4 hours per week preparing for class. As a student in this course you are expected to display respect, professional behavior and cooperative attitude at all times. Punctual attendance is critical in this class due to the extent of the material. The college attendance policy will be strictly adhered to. The student is expected to be prepared to work and to participate in all class activities.

Evaluation of Students:

Lab	30%
Quizzes and Homework	25%
Attitude and Attendance	20%
Final Examination	25%

Course Schedule:

The class meets for 6 lecture hours and 4 lab hours per week for 8 weeks.

SCANS Information:

INFORMATION:

Acquires, evaluates, interprets and communicates information. Uses computers to acquire and communicate information.

SYSTEMS:

Suggests modifications to existing systems and develops new or alternative systems to improve performance. Knows how technological systems work and operates effectively with them.

TECHNOLOGY:

Chooses procedures, tools or equipment including computers and related technologies. Prevents, identifies, or solves problems with equipment.

Instructor Information:

Jaroy Roberts, Instructor
Room 187 TC
(432) 685-4687 Office
(432) 349-5913 Cell
E-Mail: jroberts@midland.edu

Office Hours: Will be posted

Curt Pervier, Applied Technology Dean
Lisa Tanner, Applied Technology Secretary
Room 143A TC
(432) 685-4676
Fax: (432)685-6472

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

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.

*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 course.

Midland College Non-Discriminatory 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 individuals have been designated to handle inquiries regarding the non-discrimination policies: **Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu**; **Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu**. For further information on notice of non-discrimination, visit <http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm> or call 1 (800) 421-3481.

Spanish

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