COLLIN COLLEGE

COURSE SYLLABUS

Course Information

Course Number: HART 1441

Course Title: Residential Air Conditioning

Course Description: A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems.

Course Credit Hours: 4
Lecture Hours: 2
Lab Hours: 4

Student Learning Outcomes:

- State Mandated Outcomes: Upon successful completion of the course, students will:
    1. Identify various types of system applications; (SCANS: C15, F1, F2)
    2. Perform charging, recovery, and evacuation procedures of an installed system; (SCANS: C18,C20)
    3. Perform component and part diagnostics and replacement; (SCANS: C18, C19, C20).
    4. Perform system maintenance. (SCANS: C5, C15, C18, C19, C20, F9)
- Additional Collin College Outcomes: Upon successful completion of the course, students will:
    1. Define psychometrics and use the psychometric chart. (SCANS: C5, C7, F6, F10)
    2. State the function of the mechanical refrigeration system. (SCANS: F7, C7, C15)
    3. Demonstrate air conditioning system installation procedures. (SCANS: C18, C19, C20)
    4. State the operation characteristics of the residential split system. (SCANS: F6, F10, C7, C15)
    5. Describe the air distribution system and measure air movement. (SCANS: F6, F10, C7, C15)
    6. State the functions of the controls used on an air conditioning system. (SCANS: F6, F10, C7, C15)
    7. Construct a fiberglass duct. (SCANS: C18, F9, F10)

Secretary's Commission on the Acquisition of Necessary Skills (SCANS)- SCANS skills are a group of foundational skills and workplace competencies that the Secretary's Commission on the Acquisition of Necessary Skills established as vitally important for workplace success in the 21st century. In Collin's workforce programs, the SCANS skills are developed and reinforced throughout the curriculum to provide students with an opportunity to hone these skills/competencies in the context of their education. Over the course of an entire degree program, the successful student is expected to demonstrate all of the SCANS skills and competencies as part of their education. The SCANS Foundation Skills and Workplace Competencies are described at: http://www.collin.edu/academics/programs/Workforce_SCANS_Skills_Syllabi_Code_Key.pdf

Withdrawal Policy: See the current *Collin Registration Guide* for last day to withdraw.

Collin College Academic Policies: See the current *Collin Student Handbook*

Americans with Disabilities Act Statement: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to contact the ACCESS office, SCC-D140 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.