INDOOR AIR QUALITY
Course Syllabus

Course Number: ARCO-0500  
OHLAP Credit: No

OCAS Code: None

Course Length: 15 Hours

Career Cluster: Architecture & Construction
Career Pathway: Maintenance/Operations
Career Major(s): HVAC Technician

Pre-requisite(s): This course is an introduction to indoor air quality (IAQ) requirements, maintaining indoor air quality, air quality issues including filtration, humidification/dehumidification, and building related illness ("Sick Building Syndrome") and will cover factors that make up acceptable indoor air quality.

Textbooks:
- Refrigeration & Air Conditioning Technology, 7th Ed, (2013), Whitman /Johnson/ Tomczyk Silberstein / Publisher Delmar Cengage

Course Objectives:

A. Demonstrate Knowledge of Indoor Air Quality.
   1. Explain the need for good indoor air quality.
   2. Define Indoor Air Quality (IAQ) as defined by ADHRAE Std. 62.
   3. Explain Sick Building Syndrome (SBS) and Building Related Illness (BRI).
   4. Recognize the symptoms of poor indoor air quality.
   5. Identify the causes and corrective actions used to remedy the more common indoor air problems.
   6. Explain the different factors that make up acceptable indoor air quality:
      a. Pollutant levels
      b. Ventilation air quantities
      c. Air distribution effectiveness
      d. Occupant comfort
   7. Perform an inspection/evaluation of a building’s structure and equipment for potential causes of poor indoor air quality.
   8. Recognize the HVAC equipment and accessories that are used to sense, control, and/or enhance indoor air quality.
   9. Use selected test instruments to measure or monitor the quality of indoor air.
   10. Demonstrate and/or describe the general procedures used to clean HVAC air system ductwork and components.
Teaching Methods: The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.

Grading Procedures: 1. Students are graded on theory and shop practice and performance.
2. Each course must be passed with seventy (70%) percent or better.
3. Grading scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=50-59%.

Description of Classroom, Laboratories, and Equipment: Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

Available Certifications/College Credit: The student may be eligible to take state, national or industry exam after completion of the program. College credit may be issued from Oklahoma State University-Okmulgee or Tulsa Community College. See program counselor for additional information.

College Credit Eligibility: The student must maintain a grade point average of 2.0 or better.

1 ODCTE objective
2 NCCER objective