

SPRING 2010

CLASS SCHEDULE



Air Flow and Duct Design for the HVAC Mechanic

When: Six Wednesdays **Date:** April 21 - May 26 **Time:** 5:30 - 8:30 p.m.
Instructor: Ken Kellman **Fee:** \$395.00

Who Should Attend

Facilities and service mechanics who want to gain a basic understanding of system design and airflow characteristics. Basic 8th grade level of math is required.

Course Objectives

- Analyze the properties of air and understand how it behaves.
- Apply the basics of system design, including temperature, pressure, and velocity through in-class exercises and homework.
- Design systems based on zoning for various building applications.
- Size ducts depending on design criteria, using a ductulator.
- Design and lay out systems of ductwork and registers to properly condition a space.
- Read and draw mechanical system blueprints, including common standards and symbols.
- Design systems based on noise criteria.
- Use common air balance tools.

Required Class Materials (To be supplied by student)

- Notebook, paper, and pencil
- Basic four function calculator that can do square roots

This class does not provide EPA certification

Registration Deadline: April 14, 2010

Hydronics for the HVAC Mechanic

When: Six Wednesdays **Date:** June 02 - July 07 **Time:** 5:30 - 8:30 p.m.
Instructor: TBD **Fee:** \$395.00

Who Should Attend

Facilities and service mechanics who are working in the field on hydronic systems and who want to increase their knowledge of hydronic systems for low-pressure hot water, chilled water, and cooling tower systems. This class is designed for the field mechanic and will deal with subjects encountered in the field. Students must have a good grasp of algebra as service issues and not with design.

Course Objectives

- Identify proper piping layouts for low-pressure boilers including necessary hydronic accessories.
- Describe the function of each of the commonly used hydronic accessories found in this area of the country.
- Determine when proper water flow exists through a coil or water-source heat pump.
- Diagnose when a bladder-type expansion tank is bad.
- Be able to determine the causes of the "old style" expansion tanks being flooded.
- Evaluate when air is in the closed loop hydronic system and how to deal with it.
- Analyze pump flow and pumping problems.

Required Class Materials (To be supplied by student)

- Notebook, paper, and pencil
- Basic four function calculator that can do square roots

This class does not provide EPA certification

Registration Deadline: May 26, 2010



1086 N. 11th Street
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Please enroll me in the following class(es)

- Air Flow and Duct Design for the HVAC Mechanic
 Hydronics for the HVAC Mechanic

Name _____

Title _____

Company _____

Phone _____ Home Phone _____

Address _____

City/State/Zip _____

REFUND POLICY

- Enrollment is transferable until the first day of class.
- Enrollment fee, less \$50.00, is refundable up to the FRIDAY prior to the first class.
- No refunds shall be made after FRIDAY prior to the first class.

PAYMENT POLICY

Please complete this enrollment form and return it with your check payable to A.I.R. Due to limited class size, placement cannot be guaranteed until payment is received. We accept personal or company checks, but we cannot take credit cards.

A.I.R. reserves the right to cancel at any time prior to start of the seminar (with full refund to applicants).

Total Enclosed \$ _____

Call Connie at (408) 920-0662 ext. 110 with any questions.