**Course Overview**

This course teaches fundamental concepts and applications essential to HVAC system design. The target audience is students who hope to become HVAC designers, project managers, or mechanical coordinators for contractors. It is also suitable as an engineering elective for engineers from other disciplines who want an understanding of the HVAC systems and equipment.

Small classes of 10-15 students meet four times weekly. This class is writing-intensive. Along with exams and homework, students complete several 1-2 pp. writing-to-learn assignments and one longer paper.

**Writing-Intensive Course Goals**

1. Use writing to enhance understanding of the engineering principles being taught through mini writing assignments.
2. Develop an awareness of professional ethics & responsibility through major writing assignments.
3. Build written communication skills.

**Why Writing?**

1. When students express concepts in words, they understand more than they do by simply memorizing and dictating facts.
2. Smaller, informal writing assignments are a low-stakes way to engage students with course material & assess their progress.
3. The major writing assignment topic is relevant to professional practice, gets students interested in the field, and teaches communication skills.

**Mini-Writing Assignments**

Students complete 3 mini writing assignments in which they are asked to explain HVAC principles to a friend, explain how particular systems work in their own words, and share their responses to the course material.

**Major Writing Assignment**

Students complete a major writing assignment to analyze ethical responsibility case in the field (15% of grade):

- Logic/reasoning: 8 points
- Discretionary: 4 points
- Spelling/grammar: 3 points

**Contact Information**

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