



# Wayne County Community College District

## COURSE SYLLABUS

### HVA 106 Basic Heating

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**CREDIT HOURS:** 5.00

**CONTACT HOURS:** 75.00

**COURSE DESCRIPTION:** This course covers the fundamentals of heat energy, the laws of thermal dynamics, and all conditions necessary for complete combustion using oil and natural gas. Topics include the safe design, construction, installation, venting, alteration, service and testing of heating equipment needed to maintain state comfort standards, as well as how heating controls operate and how they are wired. This course will also review reading and understanding of ladder, schematic diagrams, pictorial diagrams and control operations.

**PREREQUISITES:** None

**EXPECTED COMPETENCIES:**

*Upon completion of this course, the student will be familiar with:*

- Understand fundamentals of heating including comfort standards, heat loss calculations, electric control wiring, servicing components and study of various types of heating systems
- Demonstrate the knowledge of local and national heating codes governing safe design, construction, installation, alterations, service, and testing

**ASSESSMENT METHODS:**

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

**GRADING SCALE:**

90%-100% = A  
80%-89.9% = B  
70%-79.9% = C  
60%-69.9% = D  
<60% = E