Sinclair Community College
444 E. Third St.
Dayton, OH 45402

Master Syllabus

CAT 1111 - Mechanical Systems Blueprint Reading

Division: Science, Mathematics and Engineering

Department: Civil Engineering Technology

Credit Hour Total: 1.0 **Lecture Hrs:** 0.5 **Lab Hrs:** 1.5

Prerequisite(s): AND MAT 0100OR MAT 1110OR MAT 1130OR MAT 1445 DEV 0035

Date Revised: October 2016

Course Description:

Reading blueprints of commercial buildings, emphasizing plumbing, electrical, HVAC and fire protection systems. One half classroom, one and one half lab hours per week.

General Education Outcomes:

- Critical Thinking/Problem Solving Competency

Course Outcomes:

Plumbing and electrical plans
Interpret the plumbing and electrical plans in a complete architectural package.

Assessment Method: Performance appraisals
Performance Criteria:

Score at least 70% of available points.

Symbols and abbreviations
Identify mechanical and electrical symbols and abbreviations.

Assessment Method: Locally developed exams
Performance Criteria:

70% or better on all exams

HVAC and architectural drawings
Describe the coordination requirements for HVAC and architectural drawings.

Assessment Method: Locally developed exams
Performance Criteria:

70% or better on all exams

Heating and cooling systems
Identify the basic components of heating and cooling systems.

Assessment Method: Locally developed exams
Performance Criteria:

70% or better on all exams

Outline:

Introduction to symbols and abbreviations

Heating and cooling systems

Forced air ducts

Hot water pipes, and boilers

Electric heating and heat pumps

Mechanical room requirements

Fire protection systems

Suppression signaling and detector systems

Water and sewer systems

Service- to- site plumbing isometrics

Drainage, public and private systems

Electrical systems

Service panel interior electric distribution

Lighting layouts and reflected ceiling plans