

Master Syllabus

CAT 1131 - Introduction to Revit MEP

Division: Science, Mathematics and Engineering

Department: Civil Engineering Technology

Credit Hour Total: 3.0

Lecture Hrs: 2.0 **Lab Hrs:** 2.0

Prerequisite(s): CAT 1101 OR CAT 1111 OR CAT 1121

Date Revised: October 2012

Course Description:

Study and application of advanced drawing using AutoDesk Revit. Major emphasis on building information modeling (BIM) theory along with construction of Mechanical, Electrical and Plumbing (MEP) systems. Two classroom, two lab hours per week.

General Education Outcomes:

- ▣ Critical Thinking/Problem Solving Competency
- ▣ Computer Literacy Competency

Course Outcomes:

Advanced modeling and editing

Demonstrate proficiency with advanced model building and editing. Use various Revit features to construct, manipulate and communicate building mechanical, electrical and plumbing models.

Assessment Method: Portfolios

Performance Criteria: 70% or more of available points.

Building Information Modeling (BIM)

Utilize software to construct a MEP model and show the embedded information with other disciplines.

Assessment Method: Portfolios

Performance Criteria: 70% or more of available points.

Types, families and components

Demonstrate proficiency with Revit MEP types, families and components. Create and add new components to be accurately placed within a Revit MEP BIM.

Assessment Method: Portfolios

Performance Criteria: 70% or more of available points.

Outline:

CAD vs Building Information Modeling
Families and components
Parameters and constraints
Model representation and communication
Design information organization
Interoperability
Site detailing