COURSE INFORMATION FORM

DISCIPLINE  
ETEC/CADD

COURSE TITLE  
Building Information Modeling, Revit

CR.HR  ____ 3  LECT HR.  ____ 2  LAB HR.  ____ 2  CLIN/INTERN HR.  ______  CLOCK HR.  ______

CATALOG DESCRIPTION
An introduction to Building Information Modeling using Revit. Building design, layout and components of residential and commercial buildings will be created. Topics will also include levels, views, detailing, scheduling, elevations and sections.

PREREQUISITES
ETEC 152 or concurrent enrollment

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:

1. Navigate the interface of a Building Information Modeler (Revit).
2. Describe and manipulate files associated with a Building Information Modeler (Revit).
3. Layout a basic building design.
4. Create levels and views associated with a building design.
5. Develop roof plans of a building project.
6. Develop exterior plans of a building project.
7. Create detail drawings of a building project.
8. Annotate details drawings.
9. Create door/window schedules.
10. Create section and elevation views of a building project.
GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

<table>
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<tr>
<th>Outcomes</th>
<th>ESO</th>
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PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Demonstrate knowledge of drafting and CADD standards and procedures.
2. Demonstrate basic design knowledge in both residential and commercial architecture projects.
3. Demonstrate ability interpret and produce residential and commercial plans, details and drawings.
4. Demonstrate appropriate interpersonal skills and written communication related to obtaining and retaining employment in a technical field.
5. Demonstrate appropriate oral, written, and technical/electronic communication skills.
6. Demonstrate skill using mathematical equations to solve problems in the field of engineering technology.
7. Demonstrate an understanding of different types of CADD systems.
8. Demonstrate ability to utilize various CADD systems.
9. Demonstrate ability to troubleshoot various CADD and design files.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes may be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Written quizzes (2)
2. Daily projects (1 - 10)
3. Final exam (1 - 10)
4. Final Project (2 - 10)

Revised 7/31/13
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Introduction to BIM
   A. Interface
   B. File types
   C. View commands
   D. Basic sketching

II. Building Layout
   A. Layout tools
   B. Levels
   C. Views
   D. Geometry

III. Plans
   A. Roof plans
   B. Exterior plans

IV. Detail Drawings
   A. View creation
   B. Annotation and dimensioning

V. Elevations
   A. View creation
   B. Annotation
   C. Editing

VI. Sections

VII. Schedules
   A. Door and window schedules
   B. Misc. schedules

VIII. Work Sharing