DESGN 325

Title: Architectural Modeling and Design

Units: 3.00

Prerequisite: DESGN 100 (Introduction to Computer Aided Drafting and Design (CADD)) and DESGN 320 (Three Dimensional Graphics and Design) with a grade of "C" or better; AND DESGN 300 (Introduction to Design Resources) or ENGR 307 (Industrial Materials Testing) with a grade of "C" or better

Advisory: ENGWR 102 or 103, and ENGRD 116 with a grade of "C" or better; OR ESLR 320 and ESLW 320 with a grade of "C" or better.

Hours: 36 hours lecture, 72 hours laboratory

Description: This course covers the concepts and applications of three dimensional graphic design using various visualization, modeling, and Building Information Modeling (BIM) programs, such as AutoCAD, SketchUp and Revit Architectural. Topics include the procedures and techniques for producing architectural models and associated technical documentation and presentation. Course projects emphasize sustainable design concepts and include all phases of design. This course may be taken two times for credit on different software versions.

Learning Outcomes and Objectives

Upon completion of this course, the student will be able to:

- create technically correct architectural surface and solid models that are useful for visualization and problem solving using various design software programs such as AutoCAD, SketchUp, and Revit Architectural
- create documentation from architectural models that are technically correct and include plans, elevations, sections, and details
- create varied presentations of architectural models that include conceptual design sketches, solar studies, and photo realistic renderings
- produce project design documentation that shows the ability to utilize modeling skills in project based assignments