DESN 350  DESGN 350
Title:  Surveying and Land Planning
Units:  5.00
Prerequisite:  DESGN 302 (Technical Documentation with CADD), DESGN 328 (Engineering Modeling and Design) AND DESGN 310 (Graphic Analysis and Documentation) or ENGR 312 (Engineering Graphics) with a grade of "C" or better
Advisory:  DESGN 320 (Three Dimensional Graphics and Design) and MATH 120 (Intermediate Algebra)
Hours:  54 hours lecture, 108 hours laboratory
Description:  This course examines elementary surveying principles and basic civil design and drafting techniques. It covers the instruments, methods, and theories necessary for the measurement of distance, direction, angles, and elevations. Surveyed data is applied to create site layouts, site models, profiles, cut and fill volumes, and traverse computations. Additionally, environmental and sustainable design practices are applied to a variety of projects.

Learning Outcomes and Objectives

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

• analyze, design, and create civil engineering drawings such as site plans, topographical maps, and land profiles
• develop design conclusions based on sound architecture and engineering principles
• design, draw, and present design solutions through graphic and oral presentations
• evaluate design solutions based on peer group and instructor critiques
• use surveying equipment including a total station, level, rod, and tape to gather the data needed to develop topographical maps, traverses, and profiles
• identify and evaluate environmental and sustainable land planning concepts