Course Number: CEGR 2104
Course Name: Surveying and Site Design
Credits and Contact Hours: 3
Instructor: Venkata Duddu and Rajaram Janardhanam

Textbook: Title: Elementary Surveying, An Introduction to Geomatics, 14th Edition
Authors: Wolf and Ghilani
Year: 2015

Other Supplemental Materials: Handouts
Software: Autodesk Civil 3D 2012
Microsoft Excel

Catalog Description: Elements of plane surveying, including taping, use of level, total station, and GPS; topographical surveying and mapping; error adjustment; area and volume computations; site development; computer applications. One hour of lecture and 3 hours of field work for four weeks: three hours of lecture.

Most Recently Offered (Day): Spring 2016, Fall 2015, Spring 2015
Most Recently Offered (Evening): Course has not been offered in 3 years

Pre-Requisites/Co-Requisites: ENGR 1202

Course is: Required (R)

Goals: The objectives of this course are to provide students with an understanding of plane surveying as it relates to civil engineering. Students will be able to collect, analyze, and utilize surveying data.

Student Outcomes Addressed:
In this course, students will develop the following Student Outcomes:
   E. an ability to identify, formulate, and solve engineering problems
   K. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Course Topics:
Units of measure; error theory and application to measurements; angles, azimuths, bearings; distance measurement; angular measurement; total station surveying; global positioning systems; leveling; traversing; area calculations; volume calculations; mapping horizontal curves; vertical curves; geographic information systems.