**SRVY 1341**
**Land Surveying**

**Western Texas College**

I. Basic Course Information
   A. Course Description
      An introductory overview of surveying equipment and measurement techniques with emphasis on leveling and traversing.
   B. Required Prerequisites
      There are no prerequisites

II. Student Learning Outcomes
   A. ap a project using field notes and a variety of equipment and hardware of the profession. Each student will measure and record field notes of a on campus apartment. The student will take notes to the drafting room and prepare a plot plan of the apartment.
   B. Demonstrate ability to use equipment and hardware of the profession. Each student must demonstrate during lab projects their ability to use surveying equipment to compute elevation differences, to layout squares, rectangles, angles and straight lines.
   C. Map out a differential leveling project and layout a grid with contour / elevation lines. During lab projects each student must demonstrate ability to layout a grid using equipment of the profession and insert onto the grid contour lines, (lines of equal elevation). The project will be used to determine cut and fill of soil for proper drainage.

III. Major Course Requirements
   A. Various course assignments
   B. Four unit tests
   C. Final Exam

IV. Information on Books and Other Course Materials
   A. Required Book
      No textbook needed
   B. Other Course Material
      1. Calculator needed for each class lecture and lab
      2. A paperback or spiral bound notebook, a pencil with eraser and some drafting tools as required for HALT 1322, Landscape Design.

V. Other Policies, Procedures: Please refer to the WTC Course Catalog for the following:
   A. Policy On Academic Integrity- Cheating and plagiarism are dishonest. Plagiarism (using, stating, offering or reporting as one's own idea, expression or production of another person) carries the penalty of being dismissed from class with a grade of F. A second violation may result in suspension from school. This is also true of cheating on exams and any other activities identified in the student handbook under this heading.

B. ADA Statement-Western Texas College is an equal opportunity institution and is in compliance with the Americans with Disabilities Act. Any student who has a physical, emotional, or learning disability can apply for accommodations through the Counseling Center. Individual programs are designed to give students with disabilities equal access to all phases of college life.

C. Drop / Withdrawal-The last day to drop or withdraw from class is November 19, 2010.

D. Attendance Policy- Regular attendance is expected. Lecture and lab attendance will be considered as a major exam.

Lecture and Lab Attendance

| | | |
|---|---|---|
| 0 | Absent | 100 |
| 1 | Absent | 90 |
| 2 | Absent | 80 |
| 3 | Absent | 70 |
| 4 | Absent | 60 |

E. Policy on Missed and Late Exams and Assignments- Make-up testing will not be permitted for unexcused absences. A score of 0 will be recorded for missing a test due to an unexcused absence. Make-up testing times and assignments will be scheduled with instructor for excused absences. No absence will be excused unless instructor is notified prior to class.

VI. Course Organization and Schedule

A. Weekly Course Schedule

| **Week Number** | **Section/Online Work** |
|---|---|
| Week 1 | Getting Started<br>Course overview. Read handout; Measuring distances, tapes, horizontal distances, measuring steep slopes, alignment between points, mistakes made in measuring. |
| Week 2 | Read / Handout; Read sections on plot plans, measuring plot plans, freehand sketch of plot plan. |
| Week 3 | Read / Handout; Imaginary extension of building walls, measuring irregularly shaped properties and measuring hint. Read; noting plant types, grade change, soil types, sunlight exposure and other required data. |
| Week 4 | Read / Handout; Drawing plot plans, Triangulation and Plotting Curves |
| Week 5 | Draw freehand sketch of college apartment #1. Transfer freehand sketch to drafting paper using T-square , triangle and scale |

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|---|---|
| Week 6 | Draw freehand sketch of college apartment #3. Transfer to paper using T-square, triangle and scale. Read / Handout; Using Your level, Levels and Level Transit and Parts of a Level. |
| Week 7 | Read / Handout; Setting Up Your Instrument and Rod. Reading the Rod |
| Week 8 | Read / Handout; Sighting & Focusing Telescope, Running Straight Lines, Measuring and Laying Out Angles, Laying Out a Square, Setting Up a Rectangle. |
| Week 9 . | Read / Handout; Difference in Elevation / Without Moving Instrument and Difference in Elevation / Moving Instrument |
| Week 10 | Read / Handout; Grid Layout and Contour Lines |
| Week 11 | In class; layout grid and determine contour lines. Use contour lines to determine cut, fill and drainage. In class; determine / contour lines, cut and fill and direction of surface drainage. |
| Week 12 | In class; determine contour lines, cut and fill and direction of surface drainage. Read / Handout: Differential Leveling. |
| Week 13 | Read / Handout; Differential Surveying Notebook. In class; Differential Leveling problem. |
| Week 14 | |
| Week 15 | In class; Differential leveling problem. Discuss differential leveling used for grading, leveling and cut and fill. |
| Week 16 | Final Exam |

Disclaimer: Schedule and content is subject to change at the instructor's discretion.

Last Modified August 19, 2015