CEST 53 - ROUTE SURVEYING & DESIGN
Course Syllabus for FALL 2004

Instructor: Jerry Miller
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Office Hours: MTWTh 2:00 – 3:00 pm or by appointment

Course and Section Web Page:

- http://online.santarosa.edu/course/homepage/?814
- http://online.santarosa.edu/section/?658

Textbook and Required Supplies:

- *Construction Surveying and Layout*, Wesley G. Crawford, Creative Construction Publishing
- Three ringed binder to contain handouts and Syllabus provided to you by instructor.
- Scientific-Engineering Programmable Calculator (TI-85 or HP-48 preferable)
- Mechanical Pencil and straight edge for field work. No ink or ball point pens!

Attendance:

- Attendance is required for both lab and lecture hours. Class begins on the hour and ends at ten (10) minutes before the hour. You are responsible for your attendance. Excused absence only by contacting instructor ***prior*** to the beginning of class.
- We will be using the integrated classroom (Rm. 1799) on one of the schedule days for our office computations. Field labs will generally be on the other scheduled day and outside of the classroom. Our schedule and/or assignments may change throughout the semester.
- There may be an opportunity to perform some surveying work off campus. If this is the case, you will be given sufficient notice for scheduling purposes.

Assignments:

- All assignments are to be done per instructions and due at the beginning of class on the assigned due date. Late assignments will only be accepted with instructor's ***prior*** approval.
- All assignments shall be done on 8½" x 11" paper, or the sheets provided, with your name, course number, assignment number and due date on the first page. Multiple sheets shall be stapled together.
- All written assignments (reports, essays, etc.) are to be typed.
- Assignments are your responsibility. Failure to observe these conditions will result in papers being returned without credit!

Projects and Field Exercises:

- All projects and field exercises (labs) are to be completed per instructions and due at the assigned date and time. Late assignments will not be accepted without instructor's ***prior*** approval.
- Attendance is mandatory. ***NO MAKE-UP LABS WILL BE GIVEN!***

Tests and Exams:

- Exams will be given on specific areas covered throughout the semester. Sufficient notice will be given prior to the scheduled exam. Review for the exam will be conducted during the previous class lecture.
- ***NO MAKE-UP EXAMS WILL BE GIVEN!***
- The final exam for this course will be comprehensive and will be given on Monday, December ~~14~~ 13, 2004, from ~~7:30am~~ 7:00 – 9:45am. in Room 1799. The final exam is required. Failure to take this exam will result in a grade of "F" for the course.

Grading:

- Your grade is based on the total number of points you accumulate with respect to the "top score" total number of points. The sum of the points in each category are multiplied by the following percentages and then added together to determine your total points accumulated:

HOMEWORK points multiplied by 25%
ASSIGNMENT points multiplied by 40%
4 Test + TEST/EXAM points multiplied by 35%
Total Points Accumulated

- Your total points accumulated are compared to the "top score" total points and final grades are based on the following percentages:

90% to 100% ..... A
80% to 89% ..... B
70% to 79% C
60% to 69% ..... D
Below 59% ..... F

- An incomplete "I" will only be given with the ***prior*** approval of the instructor.

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FALL 2004 COURSE OUTLINE

The objective of this outline is to assist you in planning your schedule. Every effort will be made to stay on schedule. However, the instructor, may find it necessary to make appropriate changes to meet the learning objectives for the entire class. You should be familiar with assignment ***prior*** to the class lecture. This may require you to read the supplemental handouts. You should allow yourself a minimum of six hours per week to complete the reading and homework assignments. Exercises, problems and exams shown below may be changed by the instructor. See the Course Syllabus for guidelines and specific information on course objectives, homework, lab assignments, exams and grading.

Asnmt	Description	Handouts and/or Text	Problems
1	Route Location Process	Samples from Meyer's Textbook	Asnmt #1
2	Measurements, Data Collection and Control Surveys	Supplemental Handout Total Stations/Data Collectors using TDS Handout & Video	Field Exercises using Total Stations/Data Collectors and Auto-Levels w/ Targets
3	Topographic and Photgrammetric Surveys Right of Way Acquisition	Supplemental Handout	Field Exercises using Total Stations/Data Collectors
4	Horizontal Alignment Simple Curves Special Problems	Meyer's, Crawford's and Kavanagh's Textbooks.	Field Exercises Stakeout procedures, PLS exam questions
5	Horizontal Alignment Compound & Reverse Curves Special Problems	Samples from Meyer's, Crawford's and Kavanagh's Textbooks.	Supplemental Handout PLS & NCSJAC exam questions
6	Vertical Alignment Parabolic Curves Special Problems	Samples from Meyer's, Crawford's and Kavanagh's Textbooks.	Supplemental Handout Vertical Curves thru fixed points, PLS exam questions
7	Earthwork and Slope Staking	Samples Crawford's and Kavanagh's Textbooks.	Supplemental Handout Earthwork Quantities NCSJAC exam questions
8	Global Positioning Surveys	Supplemental Handouts Field Trip/Demos	Supplemental Handout
9	Route Surveying and Design Project	Group Projects related to Route Surveying and Design Applications	