COURSE SYLLABUS
LS 2010 – Engineering Surveying

Instructor Information:
Instructor(s): David Hammond, P.L.S.
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Office Hours: TBA

Course Information:
Delivered and scheduled through the Outreach Credit Program

Prerequisites:
A working knowledge of algebra and trigonometry.

Course Description:
This course covers the principles of measurements of distances, elevations, and angles. It also includes basic error theory in measurement and calculations, traverse office calculations, and basic principles of surveying and mapmaking.

Disability Statement:
If you have a physical, learning, or psychological disability and require accommodations, please let me know as soon as possible. You will need to register with, and provide documentation of your disability to, University Disability Support Services (UDSS) in SEO, room 330 Knight Hall, (307) 766-6189, TTY: (307)766-3073.

Objectives/Outcomes/Standards:
This introductory course will introduce the student to the basic concepts of surveying calculations, error analysis, adjustments and corrections to field survey data. This class will provide the future young professional with a feel for the survey data’s accuracy, adequacy, and limitations for use in engineering designs, property surveys, or construction layout staking.

Text(s) and Readings:
Elementary Surveying, An Introduction to Geomatics, Gilani and Wolf, Pearson/Prentice Hall, 13th Addition.

Course Requirements/Assignments:
This course will consist of lectures, homework, and tests.

Grading Standards:
The final grade will be composed of Homework – 100 points, Three Hour Tests – 3 x 100 points = 300 points, and a Comprehensive Final Exam – 150 points. Grading will be based on 550 points. A = 100% - 90%, B = 90% - 80%, C = 80% - 70%, D = 70% to 60%, F > 60%.

Homework – each home work is worth 10 homework points with the exception of the traverse homework, it will count as three homework assignments (30 homework points), there are 19 homework assignments for a total of 210 homework points. I will divide your homework points by 210 and multiply by 100 to determine your homework points for your final grade.

Attendance/Participation Policy:
Lecture attendance and class participation is not mandatory, but it is encouraged.
Academic Honesty:
UW Regulation 6-802. (Suggested language: The University of Wyoming is built upon a strong foundation of integrity, respect and trust. All members of the university community have a responsibility to be honest and the right to expect honesty from others. Any form of academic dishonesty is unacceptable to our community and will not be tolerated [from the University Catalog]. Teachers and students should report suspected violations of standards of academic honesty to the instructor, department head, or dean. Other University regulations can be found at: http://www.uwyo.edu/generalcounsel/new-regulatory-structure/index.html)

Course Outline:
Lecture Topics:
- Theory of errors and analysis
- Differential and Trigonometric leveling
- Horizontal distance measuring
- Angles and Directions
- Theodolites and Compensating Levels
- Angle measuring operations
- EDM measurement and errors
- Coordinate systems and calculations
- Traversing; calculations and adjustments
- Basic GPS operations
- Construction Staking procedures and calculations

The instructor may make changes to the syllabus as the course proceeds. If necessary, these changes will be announced in class. Substantive changes made to the syllabus shall be communicated in writing to the students.