



CEE 121 ELEMENTARY SURVEYING

University of Nevada, Las Vegas
Howard R. Hughes College of Engineering
Civil & Environmental Engineering & Construction
Summer 2022

Course Information:

Semester: Summer 2022 (June 6, 2022, to August 10, 2022)

Lecture Day: Monday and Wednesday.

Lecture Time: 6:00 p.m. – 7:30 p.m.

Mode of Lecture: In -PBT/F1 11000Tf1 .



4. Closure
5. Areas Computations
6. Coordinate Systems (e.g., GPS, State Plane, NAD83)
7. GPS (importing and exporting data)

Course Objectives:

Students will develop competencies in:

Know how to setup a tripod over a monument

Know how to measure distances using a steel tape/chain, pacing, total station and GPS

Know how to measure/derive elevations/heights using an automatic level, total station and GPS. Perform level loop/circuit analysis

Know how to measure horizontal and vertical angles using a total station. Perform closure adjustments to closed traverses using the Compass (Bowditch)

Rule/Method

Understand Projects Transverse Mercator), Datums (NAVD 88, NAV 83, WGS 84), Geoid, Ellipsoid, Orthometric Heights, Geographic Coordinate Systems, State Plan Coordinate Systems

Create CAD drawings using filed measurement data showing angles, bearings, and distances, area, existing and proposed TIN surface, and coordinates. Also create topographic maps showing elevation contours.

Earthwork calculations, determine the volume between the existing and proposed surface.

Required and/or Recommended Books and Materials:

Text Book: **Elementary Surveying: An Introduction to Geomatics, 15th Edition** by Charles D. Ghilani, ISBN 10: 0-460465-2-0; ISBN 13: 978-0-460465-7, © 2018 by Pearson Education, New York, New York.

Homework Policy:

Homework assignments and Lab assignments are due at the time and day mentioned in the Homework and Lab assignment sheets. Unless prearranged, any homework and Lab work turned late (within 24 hours of due date) will be subject to a 50% penalty. Homework and labworks submitted after 24 hours of due date will not be accepted.

Class Attendance Policy:

The class attendance is mandatory and the students who missed more than 5 classes will be assigned F grade. The following is directly quoted from the 2021-2022 University Undergraduate Catalog: <https://catalog.unlv.edu/content.php?catoid=32&navoid=8271>

Class Attendance Policy: Registration in a class obligates the student to be regular and punctual in class attendance. Students who without previous arrangement with the



instructor or department fail to attend the first two class meetings of a course that meets multiple times per week or the first meeting of a class that meets one time per week may be dropped from the course. Nonattendance for a web-based course shall be defined as failure to log onto Canvas or other instructor-designed website within one week of the course start date without previous arrangements with the instructor or department. Nonattendance does not release the student from the responsibility to officially drop any course for which they have enrolled and choose not to complete, nor from financial obligation to pay for the course.

Missed Classwork:

There are no official absences from any university class. It is the student's responsibility to consult with the course instructor regarding absences from their class. Students may be dropped from classes for nonattendance during the first week of instruction.

It is the policy of the Nevada System of Higher Education to be sensitive to the religious obligations of its students. Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The makeup will apply to the religious-holiday absence only. It shall be the responsibility of the student to notify the instructor within the first 14 calendar days of the semester of his or her intention to participate in religious holidays that do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university that could not reasonably have been avoided.

Any student who is denied a make-up option after appropriately notifying the instructor, shall have the right to appeal that decision through the normal appeal mechanism in place.

Assignment Weights:

- 1st Mid Term Exam: 125 points
- Final Exam: 125 points
- Homeworks – 5 @ 20 Points: 100 points
- Lab Assignments 4 @ 25 Points: 75 points
- Theory Quizzes – 5 (4 @ 12.5 Points): 50 points
- Attendance: 25



Extra Credit Assignment Options:

Professor, at his sole discretion, may provide students with an opportunity to complete extra credit test or assignments.

Homework:

Homework will be due at the specified time and date. Assignments could be submitted before the due date. All problem-solving/computation homework will be done in _____ and submitted via email by scanning the engineering sheets. Assignments with spelling, grammatical, or mechanical errors—or with obvious erasures, cramped margins, coffee stains, etc.—will be downgraded

Communication Skills:

Communication skills are paramount to a successful career. Therefore, communication skills, written and oral, will be evaluated in all coursework. Lengthy and major assignments involving significant writing will have writing as 30 percent of their evaluation criteria. The laboratory part of this course will include the report writing. To get more help about writing you may access at: <http://writingcenter.unlv.edu/>

Examinations:

Examinations will be closed books and closed notes. Missed examinations will count as zero if prior authorization is not granted. The honor system is observed. Make-up examinations will be given under **extraordinary** circumstances only. No make-up examinations will be given beyond one week (7 days) after the original exam date regardless of reason. Make-up examinations will cover material similar to the original exam, but may be of a different format and different composition of types of questions.

Grading Scale:

Letter Grade	Score Range	Subjective Criteria	Range
A	90% - 100%	Superior knowledge	Acceptable
B+	87% - < 90%	Good knowledge	Acceptable
B	80% - < 87%	Good knowledge	Acceptable
C+	77% - < 80%	Average knowledge	Acceptable



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class(es).

The spirit and intent of the policy for missed classwork is to offer fair and equitable assessment opportunities to all students, including those representing the University in extracurricular activities. Instructors should consider, for example, that in courses which offer a “Drop one” option for the lowest assignment, quiz, or exam, assigning the student a grade of zero for an excused absence for extracurricular activity is both contrary to the intent of the Faculty Senate’s policy, and an infringement on the student’s right to complete all work for the course.

This policy will not apply in the event that completing the assignment or administering the examination at an alternate time would impose an undue hardship on the instructor or the University that could be reasonably avoided. There should be a good faith effort by both the instructor and the student to agree to a reasonable resolution. When disagreements



One-on-one or small group assistance with writing is available free of charge to UNLV students at the [Writing Center](https://writingcenter.unlv.edu/), <https://writingcenter.unlv.edu/>, located in the Central Desert Complex, Building 3, Room 301 (CDC 3–301). Walk-in consultations are sometimes available, but students with appointments receive priority assistance. Students may make appointments in person or by calling the Center, telephone 702-895-3908. Students are requested to bring to their appointments their Rebel ID Card, a copy of the instructions for their assignment, and two copies of any writing they have completed on their assignment.

