

SUR 221 – Survey Measurements and Adjustments I Spring 2019

A. COURSE INFORMATION

Course number/section: SUR 221.001
Class meeting time: Lecture: Online Only
Class location: Lecture: Online Only
Course Website:

B. INSTRUCTOR INFORMATION

Instructor: C.A. “Tony” Nettleman, III
Office location: Online Only
Office hours: TBA
Telephone: TBA
E-mail: TBA
Appointments: TBA or by appointment

Please be aware that e-mails are typically returned within 24 hours and I will be traveling throughout the semester (dates will be posted shortly before each trip). For immediate assistance, please call my cell phone.

C. COURSE CATALOG DESCRIPTION

This course covers the basic theory and mechanics of a least squares adjustment using the traditional surveying observations of distances, angles, azimuths, and elevation differences. It explores the theory of error propagation and uses this theory to determine the precision of indirectly measured quantities. It explores post-adjustment analysis through the use of various statistical tests, and error ellipse computation and analysis. This course primarily focuses on the least squares adjustment and analysis of differential leveling, triangulation, trilateration, traverse and network observations.

D. PREREQUISITES AND COREQUISITES

Prerequisites

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

None

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

By the end of this course, students should be able to:

1. Model, setup, and perform Least Squares Adjustments
 2. Linearize non-linear Least Squares Adjustments problems
 3. Apply principles of Error Propagation
 4. Apply the principles of LSA to practical problems
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G. INSTRUCTIONAL METHODS AND ACTIVITIES

This course is composed of fifteen weekly modules. Each module includes lectures, assignments, and assessments created to gauge your understanding of the material.

Weekly modules are launched each Sunday at 12:01AM. The student is expected to watch the lectures and complete their work before the next Saturday at 11:59PM. Projects may run longer than one week so check your calendar for details.

H. MAJOR COURSE REQUIREMENTS AND GRADING

Student learning outcomes will be assessed through the following assignments and assessments:

ACTIVITY	% of FINAL GRADE
Discussion Posts	10
Homework Assignments	50
Midterm Exam	20
Final Exam	20

I. COURSE CONTENT/SCHEDULE

WEEK	<u>TOPIC</u>	CHAPTER(S)
Week 1	TBA	TBA
Week 2	TBA	TBA
	TBA	TBA
Week 3	TBA	TBA
Week 4	TBA	TBA
Week 5	TBA	TBA
	TBA	TBA
Week 6	TBA	TBA
Week 7	TBA	TBA
Week 8	TBA	TBA
	TBA	TBA
Week 9	TBA	TBA
Week 10	TBA	TBA
Week 11	TBA	TBA
Week 12	TBA	TBA
	TBA	TBA
Week 13	TBA	TBA
Week 14	TBA	TBA
Week 15	TBA	TBA

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

J. COURSE POLICIES

Attendance/Tardiness

Attendance at all times is compulsory

Late Work

Late work will not be graded.

Participation

Participation in all activities is compulsory.

K. COLLEGE AND UNIVERSITY POLICIES

Academic Integrity (University)

It is expected that university students will demonstrate a high level of maturity, self-direction, and ability to manage their own affairs. Students are viewed as individuals who possess the qualities of worth, dignity, and the capacity for self-direction in personal behavior. See the full University Policy at landsurveycareer.com/catalog

Deadline for Dropping a Course with a Grade of W (University)

The grade of W will be assigned to any student officially dropping a course. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that must be submitted. No student is eligible to receive a W without completing the official drop process by this deadline. Please consult the Academic Calendar (landsurveycareer.com/calendar) for the last day to drop a course

Grade Appeals (College of Science and Engineering)

A student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor.

Disability Services

Our services are designed to meet the unique educational needs of enrolled students with documented permanent or temporary disabilities. DS provides intake and consultation services to students seeking to register with our office. DS reviews an individual's documentation of disability and assesses eligibility for services and the determination of reasonable accommodations. For more information visit the Disability Services Office landsurveycareer.com/disability

GENERAL DISCLAIMER

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.