

## **SUR 214 – Photogrammetry and Remote Sensing Spring 2019**

### **A. COURSE INFORMATION**

**Course number/section:** SUR 214.001  
**Class meeting time:** Online Only  
**Class location:** 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**

Use of aerial photographs for mapping, geometry of single photo and stereographic models, scale and relief displacement, vertical and titled photos, parallax, photo mosaics, ground control, stereoplotters, resection, orthophotos, oblique photos.

### **D. PREREQUISITES AND COREQUISITES**

**Prerequisites**  
None

### **E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES**

**Required Textbook(s)**  
Wolf & Dewitt, Elements of Photogrammetry with Applications in GIS, 4th ed.

**Supplies**

- None

**F. STUDENT LEARNING OUTCOMES AND ASSESSMENT**

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

1. Understand the basic geometry of imagery
2. Measure horizontal and/or vertical positions of objects visible in a single near-vertical aerial image
3. Measure horizontal and/or vertical positions of objects visible in a stereopairs of near-vertical aerial images
4. Understand the analytical methods photogrammetry toward the stereocompilation of imaged feature
5. Understand the requirements of ground control needed to support high accuracy photogrammetric mapping
6. Understand elements of flight planning
7. Measure position information from non-vertical, close-range imagery

**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:

<b>ACTIVITY</b>	<b>% of FINAL GRADE</b>
Labs	30
Homework	30
Class Discussions	10
Exams	30

**I. COURSE CONTENT/SCHEDULE**

<b>WEEK</b>	<b><u>TOPIC</u></b>	<b>CHAPTER(S)</b>
1	Image acquisition	TBA
2	Measurement of position in images	TBA
3	Ground coordinate systems; geometry of vertical images	TBA
4	Stereoscopic viewing and measurement of pairs of vertical images	TBA
5	Tilted vertical images; analytical photogrammetry	TBA
6	Mid-term examination	TBA
7	TBA	TBA
8	Aerotriangulation	TBA
9	Stereocompiler technology	TBA
10	Project and flight planning	TBA
11	Accuracy standards and testing	TBA
12	Map compilation, orthophotography, mosaics	TBA
13	Close range photogrammetry; LIDAR	TBA
14	TBA	TBA
15	*Final Exam*	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](http://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 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](http://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](http://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.