Surveying Engineering Program
Department of Civil Engineering
College of Engineering
King Saud University

SE 321 Photogrammetry

Credit and Contact hours	3 / 2(Lectures); 0(Tutorials); 2(Laboratory) **3(2, 0, 2)**
Required, or Elective	Required for a BSCE degree
Course Description	Definitions & basic concepts; geometry of aerial photos; theory & procedure of stereoscopy; analogue stereoploters; orientation (inner, relative, absolute); flight planning; map compilation.
Prerequisites or Co-requisites	SE 212
Course Learning Outcomes	Students completing this course successfully will be able to

Course Learning Outcomes	*Related Student Outcomes (SO)*
CLO1: Compute survey data from single aerial photo	**SO1**
CLO2: Compute spatial information from stereo photos	**SO1**
CLO3: Design a flight plan for aerial photography	**SO2**

Student Outcomes

SO1: an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics, and using modern engineering tools

SO2: ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

Topics Covered

List of Topics	Related CLOs
1. Definitions & basic concepts of photogrammetry	CLO1
2. Geometry of aerial photos	CLO1
3. Theory & procedure of stereoscopy	CLO2
4. Analogue stereo-plotters: parts and types	CLO2
5. orientation (inner, relative, absolute)	CLO2
6. Flight planning; map compilation.	CLO3

Textbook(s) and Other Required Material	Textbook: P. R. Wolf, B. A. Dewitt and B. Wilkinson "Elements of Photogrammetry with Applications in GIS", 4th Ed. 2014. McGraw Hill

Grading System	Tutorials problems and Lab 30% 2 Mid-Terms 30% Final Exam 40%
Instructors	Prof. Ismat El Hasan (2A44); email: ismat@ksu.edu.sa
Date of Review	Nov, 2020