GE 119: PHOTOGRAMMETRY 2
Class Orientation
for 1st Semester, AY 2017-2018

Engr. Jojene R. Santillan
Assistant Professor I
College of Engineering and Information Technology
Caraga State University
Your Instructor

• Engr. JOJENE RENDON SANTILLAN
• Master of Science in Remote Sensing
  – University of the Philippines-Diliman
• Bachelor of Science in Geodetic Engineering
  – University of the Philippines-Diliman
A Review of our University and College Virtues and Core Values
VISION

A premiere University known for academic excellence in science and technology, agriculture, environment and natural resources, engineering, educational and the arts towards the sustainable development of Caraga Region.
MISSION

In pursuit of academic excellence, Caraga State University shall endeavor to deliver the highest quality of instruction, research, extension, production, and administration to produce scientifically trained, technologically skilled, and morally sound individuals contributing to the creation of an eco-friendly and healthy environment.
• As a student, how can you contribute to CSU’s mission and vision?
CSU Core Values
CSU Core Values

Competence

S

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CSU Core Values

Competence
Service
Unidad
CSU Core Values

Competence

Service

Uprightness
GOALS OF CEIT
Goal #1

• To provide relevant and quality undergraduate and graduate engineering and IT education to produce graduates who are **globally competent** in their field of specialization, passers of licensure or national competency examinations, and manifesting high ethical standard with concern for the society and environment;
Goal #2

• To provide post-graduate and continuing education programs to **advance** the knowledge and **enhance** the competence of engineers and information technology professionals;
Goal #3

• To provide an educational experience that will develop students’ full potential to become leaders in their field of specialization and understanding the implications of their work on both to themselves and to society as a whole;
Goal #4

• To engage in relevant research activities focused on regional and national priority areas that will cultivate creative and innovative endeavors to promote economic development;
Goal #5

• To conduct relevant extension programs, and participate in community activities that will promote awareness on socio-economic, legal and environmental issues;
Goal #6

• To establish and strengthen mutually-beneficial linkages and collaborations with industries, government institutions and other entities; and
Goal #7

• To subject academic programs and services to quality assurance mechanisms to ensure relevance, compliance to standards, and continual improvement.
PHOTOGRAMMETRY ...
• What is Photogrammetry?
• What is Photogrammetry?

Some say:

“The use of photography in surveying and mapping to measure distances between objects.”
• What is Photogrammetry?

Others say:

“The science of making measurements from photographs, especially for recovering the exact positions of surface points.”
• What is Photogrammetry?

Very simple definition: “It is the science of measuring in photos”
• Why do you need it as future Geodetic Engineers? (or Why are you required to take this course)?
The BSGE Program Educational Objectives

Three to five years after graduation, the Geodetic Engineering alumni:

1. Must have advanced their practice in the field of surveying, digital mapping, remote sensing, spatial data handling for land and geographic information systems;
The BSGE Program Educational Objectives

2. Must strive to be globally competitive through upholding the CSU mission values, pursuing continuing education, and continuously advancing personal growth; and
The BSGE Program Educational Objectives

3. Must respond to the holistic demand for a geodetic engineer in protecting the environment, human life and property, promoting socio-economic development, and in providing innovative systems for good governance and community service.
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PHOTOGRAMMETRY

1 vs. 2
Photogrammetry 1

• Introduction to photogrammetry;
• study of aerial photography, differential GPS assisted aerial photography (using analogue and digital cameras) and flight planning, principles of stereoscopy;
• properties of single photographs, photogrammetric optics;
• properties of single photographs;
• rectification;
• construction of photo-mosaics; simple mapping methods
Photogrammetry 2

- Principles of stereo photogrammetry;
- theory of orientation;
- collinearity and coplanarity equations, aerial triangulation measurement and adjustment, coordinate transformations;
- terrain and feature extraction, Digital Terrain Modeling (DTM) collection and processing;
- Image/Photo rectification and mosaicking;
- Digital orthophoto and semi-rectified map mapping procedures and integration with other systems/applications.
COURSE DESCRIPTION AND DETAILS

(refer to hand-outs provided)
CLASS POLICIES

(refer to hand-outs provided)
Teacher-Student Roles
What are my roles/Responsibilities as your teacher?

• Some expected roles/Responsibilities:
  – Teach the lessons, and to make sure you have understood it
  – Follow class schedules
  – Motivate the students
  – Provide learning materials
  – Guide you during the conduct of laboratory exercises.
  – Provide consultation hours
  – Conduct/implement various measures to test your knowledge, comprehension, application, analysis, synthesis, and evaluation of the topics that have been discussed and the exercises that have been conducted.
    • Quizzes, oral recitations, seatworks, problem sets, laboratory exercises, exams, etc
  – Keeps accurate records of student performance.
What are your roles and responsibilities?

• Very important:
  – Attend class meetings.
  – Study hard and perform to the best of your ability
  – Submit all course requirements in a timely manner
  – To learn beyond what is required.
Assignment

• How is ‘Photogrammetry’ related to Remote Sensing, GIS, Cartography, and GPS/GNSS?
  – Use your own words.
  – Support your explanations with your own diagrams/illustrations

Instructions:
1. Answer only based on the given requirements/constraints.
2. Encode your answers in one-page short bond paper (computer-encoded)
3. Use Times New Roman font; font size = 12; line space = 1.5
4. Use 1” margin all sides.
5. Your Full name, student number, year, course code and name must be written at the first line.
6. Submit on Friday, August 25, 2017 at 1:00 PM
What are your expectations?