Lesson Plan 1

Charles Jason Tinant

8/29/2018

Engr 233/231-Elementary Surveying Lesson Sheet

LESSON 1 – Chapter 1

ORIENTATION:

Surveying has a long history and has evolved technologically both as its own profession and in support of professions like Civil Engineering. Surveyors and Civil Engineers and scientists should use modern survey equipment, understand historical equipment and procedures, and apply mathematical relationships to surveying.

OBJECTIVES:

1. Understand the history of surveying, and opportunities to implement surveying techniques in engineering projects;
2. Review trigonometric functions;
3. Prepare for a taping laboratory

READING ASSIGNMENT:

Ghilani and Wolf *Chapter 1 – Introduction:* Read about the history and importance of surveying & modern geomatics in sections 1.1 - 1.3, 1-5 on pages 1-8.
Scan other sections of chapter 1 for useful information.

Chapter 6 - Distance Measurement: Prepare for the first laboratory (measuring and mapping the perimeter of Area 51 using a tape) by reading sections 6.8-6.14.
Scan sections 6.1-6.7 for useful information.

Appendix B - Example Noteforms: Plate B.1

IN-CLASS ASSIGNMENT / HOMEWORK:

Work in groups of no more than three to:

1. Complete Trigonometry handouts;

Due Date: September 7, 2018

2. Set up field book following Plate B.1.

Suggested Class Schedule

0:00 - Class Start / Greetings & Discuss Syllabus 0:30 – History of Surveying
0:50 – Break
1:00 – Trig Review
1:50 – Break

2:00 – Taping laboratory preparation
2:50 – Class Discussion

Taping laboratory

The laboratory starts at 9 AM Friday at Piya Wiconi. Please work in teams of no more than three to measure the Area 51 building including doors and the two sheds using a tape (clockwise & anti-clockwise) & by pacing.

Survey books and engineering scales are on order and should hopefully arrive next week.

Deliverables: 1. Your completed survey book should look resemble Figure B.1 (Appendix) with both calculations and a map shown.

2. Your length of stride written in the field notes of your lab.

Due Date: September 21, 2018