

AGEN 135
Construction Surveying
Fall 2019

First Examination Study Guide

Prepared By

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- Define surveying.
- List and discuss the three main reasons for surveying.
- Discuss the difference between geodetic and plane surveying, and reasons why each is used today.
- Discuss the importance of proper field notes and list four of the several points to remember about field notes.
- List and discuss three of the five basic requirements of good field notes.
- List a type of information best discussed by each: tabulation, description, and diagrams.
- Discuss the reasons for listing the date, weather instrument, and party information in good field notes, and why notes should be original and without erasures.
- Know the English and metric units for various surveying measurements and how to convert amongst units (standard conversions will be provided during the exam).
- List and give an example for each of the five types of surveying measurements.
- Discuss the differences between blunders or mistakes, systematic errors, and random errors, and discuss a source of each.
- Know the difference between precision and accuracy.
- Describe the reasons for significant digits and apply the theory to problems.
- Be able to apply rounding rules to problems (as discussed in class).
- Know that distances in plane surveying are assumed to be horizontal distances.
- List the standard methods for measuring distances and the expected accuracy of each
- List an application for pacing, taping, and EDM.
- List the purpose of each taping accessory and explain when it is used.
- List the jobs of the head and the rear tapepersons.
- List and discuss the procedure for proper distance measuring with a steel tape.
- Discuss “breaking tape” and other methods of measuring distances on steep slopes.
- List five of the nine common sources of taping errors and list how to minimize them.
- Know how to calculate areas using rectangles, circles (including circular sectors), and triangles.