

**CEE 272**  
**Civil Engineering Measurements**

- Catalog data:** 20-CEE-272. Civil Engineering Measurements. 3 cr. ug. Basics of Surveying instruments and their use, engineering field and laboratory measurement techniques, computerized data acquisition and reduction.
- Prerequisites:** None
- Textbook:** *Elementary Surveying* by: Wolfe and Ghilami, 10<sup>th</sup> edition Prentice Hall ISBN 0-32-101-461-8
- References:** None
- Coordinator:** George Armstrong, P.S., P.E.; George.Armstrong@cincinnatiastate.edu
- Goals:** To develop in Civil Engineering sophomores an appreciation of the services and field work provided by the surveyor in the planning, design and control of civil engineering projects, including limitations and constraints.
- Lecture or lab topics:**
1. Taping & linear measurement (3 classes)  
Lab: Taping
  2. Leveling – Profile Leveling (3 classes)  
Lab: Leveling
  3. Horizontal Angles Bearings Azimuth (3 classes)  
Lab: Traversing
  4. Traverse Adjustment (4 classes)  
Lab: Computer Exercises
  5. Topography and Contours (6 classes)
  6. Road Design Project – start (3 classes)  
Lab: Computer Exercises
  7. Geographic Information Lab (3 classes)  
Lab: ESRI Lab
  8. Road Design Project Cont. (3 classes)  
Lab: Computer Exercises
  9. Introductory GPS (3 classes)
- Computer usage:** Autodesk: Land Development
- ABET criterion 3:** a, b, d, e, f, g, k
- ABET criterion 8:** a, c
- Date prepared:** March 25, 2004, Last Update : April 25, 2007