

## CEEN 2610L - Surveying Laboratory

Fall 2026 Syllabus, Section 03, CRN 41035,

Credit hours: 1

### Instructor

John DeSantis

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### Public Instructor Information

Ph.D., Civil & Environmental Engineering, University of Pittsburgh, 2020

B.S., Civil & Environmental Engineering, University of Pittsburgh, 2014

B.A., Mathematics/Engineering, Saint Vincent College, 2013

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### Course Description

2610L. Surveying Laboratory. Field surveying principles and techniques. Uses of transit and level are stressed. Three laboratory hours per week. Coreq.: CEEN 2610. 1 s.h.

### Course Readings

| Group    | Title                               | Author                           | ISBN |
|----------|-------------------------------------|----------------------------------|------|
| Required | YSU Manual for Surveying Laboratory | YSU CEEN                         |      |
| Required | Field Notebook                      | Various                          |      |
| Optional | Surveying Fundamentals and Practice | Nathanson, Lanzafama, and Kissam |      |

1. YSU Manual for Surveying Laboratory (**Required**)
2. Field notebook (approximately 4.5" x 7.5") (**Required**)
3. Additional reference (course textbook): *Surveying Fundamentals and Practice* by Nathanson, Lanzafama, and Kissam, 7th Edition. Pearson, 2018.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

### Schedule of Topics and Assignments

| Week of | Reading(s)              | Proposed Topic                                | Due/To Prepare for Class                                                                                           |
|---------|-------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 8/24    | Lab Manual Introduction | Course Introduction                           | Purchase field notebook.                                                                                           |
| 8/31    | Week 2                  | Field Book Arrangement<br>Taping Measurements | Read lab 1 & 2 information in Lab Manual<br>Imslms_1782713_1<br>Imslms_1782714_1<br>Imslms_1782715_1<br>Quiz 1 due |
| 9/7     | Week 3                  | Electronic Distance Measurements              | Imslms_1782716_1<br>Imslms_1782717_1<br>Read lab 3 information in Lab Manual<br>Quiz 2 due                         |



|       |                       |                                            |                                                                                                                 |
|-------|-----------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 9/14  | Week 4                | Differential Leveling                      | Imslms_1782718_1<br>Imslms_1782719_1<br>Read lab 4 information in Lab Manual<br>Quiz 3 due                      |
| 9/21  | Week 5                | Horizontal and Vertical Angle Measurements | Imslms_1782720_1<br>Imslms_1782721_1<br>Read lab 5 information in Lab Manual<br>Quiz 4 due                      |
| 9/28  | Week 6                | Total Station Traverse Survey              | Read lab 6 information in Lab Manual<br>Quiz 5 due                                                              |
| 10/5  | Week 7                | Topographic Survey                         | Imslms_1782722_1<br>Imslms_1782723_1<br>Quiz 6 due<br>Read lab 7 information in Lab Manual                      |
| 10/12 | Week 8                | Two-Peg Test (Level Check)                 | Imslms_1782724_1<br>Imslms_1782725_1<br>Read lab 8 information in Lab Manual<br>Quiz 7 due                      |
| 10/19 | Week 9                | Innovation Lab                             | See Blackboard for details                                                                                      |
| 10/26 | Week 10               | Course Project Introduction                | Read project information on Blackboard                                                                          |
| 11/2  | Week 11               | Course Project                             | Work on course project                                                                                          |
| 11/9  | Week 12               | Course Project                             | Work on course project                                                                                          |
| 11/16 | Week 13               | Course Project                             | Work on course project                                                                                          |
| 11/23 | Thanksgiving Break    |                                            | No Class                                                                                                        |
| 11/30 | Week 15               | Course Project Due                         | Imslms_1782726_1<br>Imslms_1782727_1<br>Imslms_1782728_1<br>Final projects due<br>Participation evaluations due |
| 12/7  | Finals Week: No class |                                            |                                                                                                                 |

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.