

California State Polytechnic University, Pomona  
Civil Engineering Department  
**CE 424 — Foundation and Retaining Wall Design**  
Fall 2005

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Text: Coduto, *Foundation Design: Principles and Practices - second edition*, Prentice Hall  
Prerequisite: CE 326 - Geotechnical Engineering II  
Corequisite: CE 421 - Reinforced Concrete Design

| Date      | Topic   | Reading Assignment | Items Due   |
|-----------|---|--------------------|---|
| Th Sep 22 | Introduction;<br>Performance Requirements                 | Ch. 1-2            |   |
| Tu Sep 27 | Soil Mechanics;<br>Site Exploration and Characterization  | Ch. 3-4            |   |
| Th Sep 29 | Spread Footings — Geotechnical                            | Ch. 5              | HW #1: 2.1, 2.2, 2.4-2.7, 2.9,<br>2.12, 2.13                            |
| Tu Oct 4  |   | Ch. 6              |   |
| Th Oct 6  |   | Ch. 7              | HW #2: 5.2, 5.3, 5.4, 6.2-6.6,<br>6.11-6.12, 6.17                       |
| Tu Oct 11 |   |                    |   |
| Th Oct 13 |   | Ch. 8              | HW #3: 7.2, 7.3, 7.8, 7.9,<br>7.12-7.14, 7.17-7.18, 7.20-<br>7.22, 7.25 |
| Tu Oct 18 | Spread Footings — Structural                              | Ch. 9              |   |
| Th Oct 20 |   |                    | HW #4: 8.4, 8.5, 8.6, 8.8,<br>8.14, 8.16                                |
| Tu Oct 25 | Earth Retaining Structures and Lateral<br>Earth Pressures | Ch. 22-23          | HW #5: 9.4, 9.6, 9.7  |
| Th Oct 27 | Mid-Term Exam   |                    |   |
| Tu Nov 1  | Cantilever Retaining Walls                                | Ch. 24             | Design Project #1   |
| Th Nov 3  |   |                    |   |
| Tu Nov 8  |   |                    | HW #6: 23.1, 23.3, 23.4,<br>23.6, 23.9                                  |
| Th Nov 10 |   |                    |   |
| Tu Nov 15 | Deep Foundations  | Ch. 11             | HW #7: 24.2, 24.7, 24.21  |
| Th Nov 17 |   |                    |   |
| Tu Nov 22 | Foundations on Difficult Soils                            | Ch. 18-20          | Design Project #2   |
| Tu Nov 29 |   |                    | HW #8: 11.2, 11.5, 11.9,<br>11.17                                       |
| Th Dec 1  |   |                    |   |
| Th Dec 8  | Final Exam 11:30–1:30                                     |                    |   |

**Homework**

Homework assignments shall be prepared in a neat and professional fashion, as if they were calculations for a “real” design project. All homework must be on engineering paper, except for computer output, which should be on plain white paper. The handwriting must be neat and clear. When plots or sketches are required, they may be drawn by hand, so long as they are neat and clear. When computing the course grade, the lowest homework score for each student will be dropped.

**Design Projects**

Two design projects will be assigned. Details will be provided in class.

**Mid-Term Exam**

The mid-term exam will cover the first half of the course (Through Chapter 9). The exam format will be announced in class.

**Final Exam**

The final exam will cover the second half of the course. The exam format will be announced in class.

**Late Policy**

All homework assignments and the design project reports are due in class at the beginning of the lecture session. The due dates are shown on the first page of this syllabus. Late work will not be accepted.

**Academic Integrity**

The University has strict rules regarding academic integrity. Violations, such as cheating, plagiarism, etc., will be treated in accordance with the College of Engineering academic integrity policy, which is available online at: [http://www.csupomona.edu/~engineering/student/academic\\_integrity.html](http://www.csupomona.edu/~engineering/student/academic_integrity.html)

**Grading**

All assignments will be graded on a scale of 0 to 10 or 0 to 100. At the end of the quarter, the instructor will compute a total score between 0 and 100 for each student. This score will be based on the following weighting factors:

|   |     |
|---|-----|
| Homework (lowest score will be dropped) | 10% |
| Design project #1                       | 15% |
| Design project #2                       | 15% |
| Mid-term exam                           | 30% |
| Final exam                              | 30% |

After computing the total score, the instructor will determine a letter grade for each student using a modified curve method, his professional judgement, and the grading system described in the University Catalog, as follows:

|                    |                               |
|--------------------|-------------------------------|
| A = Superior work  | D = Minimally acceptable work |
| B = Very good work | F = Unacceptable work         |
| C = Adequate work  |                               |

Since this method is not based on the traditional scale (90-100=A, 80-89=B, etc.), you should not try to estimate your grade by that scale.