CEE 778/878 – Foundation Design I

Course Syllabus, Fall 2019

1. General Information:

Time and Location:	9:00 - 10:00 AM, MWF, Hamilton Smith 150 2:10 - 3:30 PM, T, Kingsbury N101
Instructor:	Dr. Majid Ghayoomi, Kingsbury W175, majid.ghayoomi@unh.edu Office Hours: Tuesday 11:30-12:30 and Thursday 10-11 AM Email your questions or make an appointment for the other times.
Teaching Assistant:	Ozge Akin, Kingsbury N142, oa1023@wildcats.unh.edu Office Hours: Wednesday 11:30-12:30 AM and Thursday 3-4 PM
Course Website:	mycourses.unh.edu : You can login using your username and password.
Reference:	No text book is required. Optionally, you can use: ***Foundation Design – Principles and Practices*** Donald P. Coduto et al. Third Edition Pearson ***Foundation Design – Principles and Practices*** Donald P. Coduto et al. Second Edition Pearson ***Foundation Design – Principles and Practices*** Donald P. Coduto et al. Custom Edition, UNH Pearson OPEN sources and handouts will be posted on the course website Other references are also available in the library

2. Course Description: Focus on geotechnical design of shallow and deep foundations, including spread footings, mats, and piles. Coverage includes bearing capacity, settlement, and design-related issues. Additional topics include review of soil shear strength, lateral earth pressure and design of retaining structures, and subsurface exploration. Prerequisite: CEE 665.

3. Course Objectives: When you complete this course, you will be able to:

a. Plan a site investigation.
b. Classify and characterize soils for foundation design
c. Estimate the capacity of foundations
d. Estimate the settlement of the soil under the foundation load.
e. Understand the shear strength of the soil and its application to foundation design.
f. Estimate the lateral earth pressures.
g. Design different retaining structures.

4. Prescription for Success:

- Sustain effort starting today. Come to class regularly. Bring a scientific calculator with you to the class. Start working on homework assignments as soon as they are assigned. DO NOT wait until the due date. Study the previous lecture notes before each session. Specify the adequate amount of time (for example at least 3 hours per class hour) to study and practice outside class.
- Full use of human resources. (Me and TA)

5. Student Evaluations:

Exams: CEE778/878 will have three exams, two during the semester and one as the final.

Project: There will be a final foundation design project.

Homework: There will be 10 homework assignments over the semester. They will be due at the START of the class ONE WEEK from when they are assigned.

- Students taking this course as CIE 878 require to do additional HWs/Project/Exam Problems

Grade Summary:

Item	Number	Percent of Final Grade
Homework	10	20%
Midterm Exams	2	30%
Quizzes	-	5%
Final Exam	1	25%
Final Project	1	20%

Grading Policy: 93% and Above: A, 90% to 93%: A-, 87% to 90%: B+, 83% to 87%: B, 80% to 83%: B-, 77% to 80%: C+, 73% to 77%: C, 70% to 73%: C-, 65% to 70%: D, below 65%:F.

Late Submission: Homework not submitted at the beginning of the class is considered late and will not be accepted. There will no partial credit for late submission. However, you are given two chances to buy extra time till 5 PM on the day the homework is due. Each unused chance of late submission is worth 1% of your final grade.

6. Organization/Neatness of Written Submissions: A significant part of the engineering is written documents. Heavy emphasis will be placed on clarity, organization, and readability of your work. Follow these rules in your homework assignments and exams:

1) All homework and exams should be submitted with no more than one problem per page.
2) Write your name, course number, and homework number on the front page of the homework assignments.
3) Staple pages together.
4) Clear and well-labeled pictures and diagrams are necessary.
5) Always use UNITS everywhere in your work. A number without units makes no sense.
6) Explain all the steps in your calculations.
7) Box your final answers.

7. Academic Honesty: University of New Hampshire students abide by the Academic Honesty Code.

https://www.unh.edu/student-life/academic-honesty-policy

8. Accommodations: If you qualify for accommodations because of a disability please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed.

9. Complimentary examples: Several example problems will be provided during the semester. Some of them will be solved and discussed during the class and some of them are solved during the recitation hours.

10. Exam Dates: Following dates are suggested for the exams based on the class schedule.

Midterm Exam 1: TBD – Mid October
Midterm Exam 2: TBD – Mid November
Final Exam: Date, Time, and Location to be announced

11. Final Project: The design project will be assigned in mid-October and must be completed by the end of the semester.