CIE 968 – Soil-Structure-Interaction

Course Syllabus, Fall 2018

General Information:

Time and Location:	9:40 – 11:00 AM TR, CHASE 175
Instructor:	Dr. Majid Ghayoomi, Kingsbury W175, majid.ghayoomi@unh.edu Office Hours: Email your questions or make an appointment.
Course Website:	You can login to Canvas using your username and password.
References:	***No Textbook is required; Handout and Reference Articles will be posted on Canvas.***

Course Description: Introduction to soil-structure-interaction, Elastic and plastic analyses, Serviceability calculations, Relative foundation stiffness, Pile-soil-interaction, Flexible retaining walls, Tunnel lining, Bridge abutments, Dynamic soil-structure-interaction, case studies, and modeling techniques. Prereq: CIE 665 and 778; or permission. 3cr.

Topics:

1. Vibration of 1DOF systems
2. Vibration of MDOF systems
3. Vibration of continuum systems
4. Dynamic soil properties
5. Wave propagation mechanism
6. Soil-Structure Interaction overview
7. Shallow foundations
8. Pile foundations
9. Retaining walls
10. Bridge abutments
11. Underground structures

Student Evaluations:

Exams: CIE968 will have two exams; one midterm and one final.

Homework: There will be approximately eight homework assignments and several paper reviews over the semester.

Project: There will be a research project in which you study a SSI topic and present it at the end of the semester.

Grade Summary:

Item	Number	Percent of Final Grade
Homework/paper review	~8	20%
Midterm Exam	1	30%
Final Exam	1	30%
Project	1	20%

Organization/Neatness of Written Submissions: A significant part of the engineering is written documents. Heavy emphasis will be place on clarity, organization, and readability of your work.

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

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.

Exam Dates: Following dates are suggested for the exams based on the class schedule.
Midterm Exam 1: TBD
Final Exam: Date, Time, and Location to be announced