## CIVL 7137/8137

# **Geotechnical Earthquake Engineering**

## **Spring 2014**

### THE UNIVERSITY OF MEMPHIS

http://www.ce.memphis.edu/7137

Professor's Name: Dr. Shahram Pezeshk; EN 104B

Office Phone: 678-4727

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Hours Credit: 3 Semester Hours

Office Hour: Open door policy

*Course Meetings:* 5:30 – 6:55 P.M., TR, EA102D

Textbook: Kramer, L. (1996). "Geotechnical Earthquake Engineering," Prentice

Hall, ISBN 0-13-374943-6, New Jersey.

#### COURSE DESCRIPTION

Theory and measurements of dynamic properties of soils and their applications in seismic hazard assessments, earthquake engineering design, and geophysics studies.

#### **GRADING**

The final grades for the course will be based on the following percentages:

Homework	35%
Exams	30%
Final Exam	35%

100%

Full POT

First Day of Classes
Aug 28, 2017 / Mon
Labor Day
Sep 4, 2017 / Mon

Fall Break Oct 14-17, 2017 / Sat-Tue Thanksgiving Holidays Nov 22-26, 2017 / Wed-Sun

Last Day of Classes Dec 6, 2017 / Wed

• Final Exam Schedule: W, Dec 13, 5:30 - 7:30p

### **TOPICS**

- Chapter 1. Introduction to Geotechnical Earthquakes Engineering
- Chapter 2. Seismology and Earthquakes
- Chapter 3. Strong Ground Motion
- Chapter 4. Seismic Hazard Analysis
- Chapter 5. Wave Propagation
- Chapter 6. Dynamic Properties
- Chapter 7. Ground Response Analysis
- Chapter 8. Local Site Effects and Design Ground Motions
- Chapter 9. Liquefaction