

CE 350 - Soil Mechanics for Non-Engineers- SPRING 2008

TEXTBOOK

Soils in Construction, 5th Edition, Schroeder, Dickenson and Warrington, Prentice Hall, 2004.

LOCATION OF CLASS AND LABORATORY

CLASS – Aylesworth C111

LAB – 140 Glover – No labs first week of class

NOTE: Lab attendance is mandatory!

PROFESSOR

Dr. Charlie, Registered Professional Engineer in Colorado and Maine

Office – A 221 Engineering

Phone - 491-5354

email - wcharlie@engr.colostate.edu

Office Hours – Monday at 11 to noon and Wed. at 10 to 11 am.

LABORATORY INSTRUCTORS (Office Hours: TBD)

GRADING

Exams –30% each (three exams, drop lowest score) – 60%

Labs – 30 %

Homework and pop quizzes – 10% (note: homework to be turned in at start of class)

A = 90 – 100%, B = 80 – 89%, C = 70 – 79%, D = 60 – 69%

NOTE: NO MAKEUP EXAMS! (Use last exam as makeup)

EXAM DATES Exam #1 on March 12th, Exam #2 on April 30th, and Exam #3 on May 14th.

TOPICS

Natural Soil Deposits, non-engineered fills, and engineered fills

Soil Reports

Engineering and construction properties of soils

Weight-Volume relationships of Soil.

Soil classification, Soil Exploration, Soil Compaction

Pore water pressure, groundwater table and permeability

Total Stress and Effective Stress

Stress Distribution and Settlement - Short term and Long term - consolidation of clays

Shear strength of soils

Soil-Bearing Capacity of Shallow and Deep foundations - Driven Pile and Drilled Shaft

Lateral Earth Pressure and Earth Retaining Structures

Excavations – OSHA standards

Slope Stability

Landfills – Liners and covers

Building Codes – IBC and UBC

Special Problems in Colorado

Expansive Soils (sometimes called expansive soils)

Collapsible Soils (wind deposits)

Landslides and Debris flows

Glacial Deposits

Reinforced Earth

HELPFUL HINTS - Attend labs and classes, read the textbook, and turn in homework!

Read the chapters, look over the appendices, work through the example problems, and attend class and lab.

Homework worked with a pencil on the faded side of engineering paper. Begin each problem on new sheet of paper. Draw a sketch of the problem. Clearly identify your answer.

Turn in homework at start of class – before lecture starts.

There may be unannounced quizzes which will be added to the homework score.

NOTE: NO MAKEUP EXAMS!

EXAM DATES: Exam #1 on March 12th, Exam #2 on April 30th.

EXAM #3 on May 14, 1:30 to 3:30pm