

## Course Description وصف مقرر دراسي

متطلب مترامن Co-Req.	متطلب سابق Pre-Req	تمارين TU	عملي LB	نظري LT	الساعات CR	اسم المقرر Course Title	رقم ورمز المقرر Course Code
353 همم CE 353	-	-	2	-	1	معمل الهندسة الجيوتكنيكية Geotechnical Engineering Laboratory	354 همم CE 354

### محتويات المقرر:

علاقة الكثافة ونسبة الرطوبة، معاملات التربة، تصنيف وتمييز التربة، معاملات النفاذية للتربة، دمك التربة، مقاومة الضغط غير المحاط للتربة، تضاعف التربة، خواص التربة المقاومة للقص.

### Course Contents:

Moisture density relationships. Soil indices. Classifications and identification of soils. Permeability properties of soil. Soil compaction. Unconfined strength. Soil consolidation. Shear strength properties of soil.

### Course Objectives:

The student will be presented with a wide range of laboratory experiments that cover the physical and engineering properties of different soil types in order to become comfortable with the basic engineering soil properties that are used in soil classification and foundation design. The scope of the course is directed towards making the student aware of the influence of soil laboratory experiments in the field of geotechnical engineering. The topics are presented through the use of PowerPoint slides, classroom demonstrations, laboratory work, discussions, and quizzes.

### Evaluation Methods:

1. Midterm exams
2. Term project
3. Assignments
4. Quizzes
5. Lab. Reports
6. Final exam

### Text Book and References:

1. DAS, B.M. (2005). Principles of Geotechnical Engineering. PWS-Kent, Boston, Massachusetts, ISBN 0534551440.
2. Bowells, J.E. "Engineering Properties of Soils and Their Measurement." ,1996, McGraw-Hill, London, ISBN 0079122477.