

## 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
-	-	1	-	2	2	مدخل الى الهندسة الجيوتكنيكية Introduction to Geotechnical Engineering	285 همد CE 285

### محتويات المقرر :

أنواع وتصنيف الصخور طبقاً لأصولها وقوتها، عمليات التعرية للصخور. أنواع التربة طبقاً لطريقة تكوينها، التصنيف الهندسي للتربة، التركيب الهندسي للتربة والمعادن الموجودة بالتربة الطينية وتأثيرها على السلوك الهندسي لها.

### Course Contents:

Types and classification of rocks based on origin and strength. Weathering process. Classification of soil based on formation. Index and engineering classification of soil. Clay minerals and soil structure.

### Course Objectives:

The student will be presented with an introductory course of engineering geology as a solid base for studying geotechnical engineering. An extensive in-class presentation of different rock types, its origin and the engineering structure of rock particles. There will be an emphasis on the importance of studying geology with regard to the field of geotechnical engineering. The scope of the course is directed towards making the student aware of the influence of engineering geology in all fields of civil engineering. The topics are presented through the use of PowerPoint slides, classroom demonstrations, discussions, and quizzes.

### Evaluation Methods:

1. Midterm exams
2. Assignments
3. Quizzes
4. In-class presentation
5. Final exam

### Text Book and References:

Fred, B., (1993). Engineering Geology. Blackwell Scientific Publication.