

الموضوعات البحثية للطلاب الساعات المعتمدة

For

Soil Mechanics (CMC305)

على كل طالب أن يختار أحد الموضوعات البحثية التالية

1- Formation of soil layers in nature

Physical and chemical weathering – Residual and transported soil layers - etc.

2- Physical properties of soil

Field inspection of soil – Laboratory soil inspection - Soil elements – Coarse soil – Fine soil - .. etc.

3- Laboratory tests to determine density, water content and specific gravity of soil

Laboratory tests indication to determine soil densities (γ) – water content (w) – specific gravity (G_s) –
Tools and apparatus – Estimation formulas

4- Laboratory tests to determine Atterberg's limits (soil consistency) of fine soil

Laboratory tests indication to determine soil consistency – Liquid limit (LL) – Plastic limit (PL) –
Shrinkage limit (SL) - Tools and apparatus – Estimation formulas

5- Soil classification systems

The main concepts to classify the soil – Classification systems – A-line – Grain size distribution

6- Water between soil grains

Soil and water – Types water in soil – Water seepage – Soil permeability

بحيث أن كل موضوع يحتوي على:

- توضيح لموضوع البحث
- فائدة الموضوع للأعمال الهندسية
- المعادلات والرسومات والأمثلة التوضيحية لفهم الموضوع
- الخلاصة والتوصيات
- المراجع المستخدمة في عمل البحث