# YENİ 4. SINIF GEOTEKNİK SEÇMELİ DERSİ

# **CE 4004**

## SHEAR STRENGTH AND SLOPE STABILITY

#### What we will learn:

- Types and causes of slope instability.
- Recognition of landslide features, site investigation, field instrumentation and monitoring in landslides.
- Drained and undrained shear behavior of granular and cohesive soils.
- Seepage and pore pressures in slopes.
- Slope stability and deformation analyses (limit equilibrium and 2D plane strain finite element).
- Slope Stabilization / Mitigation Techniques.
- Earthquake induced landslides.
- Special Landslide issues: landslides in stiff clays and shales, rainfall triggered landslides in unsaturated soils, slope stability in embankments and dams including tailing dams...

## **Computer Usage:**

Seep, Slide, Slope/W, Phase or Plaxis

### Grading:

Tentatively 7 Assignments: 25%

Midterm Exam: 25%

Term Project Report / Presentation: 20%

Final Exam: 30%

Who is giving the course? Asst. Prof. Nejan Huvaj

### Questions?

Room K1-302, nejan@metu.edu.tr



