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Department of Civil Engineering	
Advanced Soil Mechanics I (61531)	
Total Credits	**3**
major elective	
Prerequisites	P1 : Soil Mechanics (61331) OR Soil Mechanics (61302)

Course Contents

This course covers advanced topics in soil mechanics, such as, soil improvements techniques, subsurface exploration, expansive soil, landsliding, slope stability, and geotechnical earthquake. In addition, computer applications in different topics will be implemented.

	Intended Learning Outcomes (ILO's)	Student Outcomes (SO's)	Contribution
1	An ability to evaluate and design soil improvement activities.	A B E J	35 %
2	Understanding and performing subsurface exploration,	B I	10 %
3	Ability to understand, evaluate and describe behavior of expansive soil in engineering projects.	B E J	15 %
4	Understand, evaluate and perform sliding and slope stability analysis. In addition to design stable slopes.	A B E K	30 %
5	Ability to communicate effectively.	G	10 %

Textbook and/ or Refrences

1. Principles of Geotechnical Engineering, By: Braja M. Das, fifth Edition, 2002, Publisher: Thomson. 2. Principles of Foundation Engineering, By: Braja Das, sixth edition, 2007. 3. Other references will be furnished during the semester.

Assessment Criteria	Percent (%)
First Exam	20 %
Second Exam	20 %
Projects	20 %
Final Exam	40 %

Course Plan

Week	Topic