Rock Slope Stability 206-23871 – 3 credits
Prof. Yossef Hatzor

Syllabus
Economic and planning considerations; basic mechanics of slope failure; graphic representation of geological data; gathering of geological data; shear strength of rocks; groundwater flow and water pressure buildup; sliding on a single plane; wedge slides; sliding on two planes; sliding on rounded surfaces; slides with toppling; use of blasting; introduction to block theory

Bibliography
Prerequisites: Introduction to Geomechanics
1. Hoek, E. and Bray, J.: Rock Slope Engineering. 3rd ed. Institution of Mining and Metallurgy. London. 1981. 357 pp.
2. Goodman, R.E.: Introduction to Rock Mechanics. 2nd ed. John Wiley & Sons, New York. 1989. 562 pp.
3. Priest, S.D.: Hemispherical Projection Methods in Rock Mechanics. Allen & Unwin Inc., 1985. 124 pp.

Course Requirements
2 hr lecture
1 hr tutorial
2 day excursion

During two field days students will research individually different problems in slope stability while using natural and artificial slopes. Field work will be done in pairs and its results will be handed in as research report that will include presenting the problem, collecting data, analysis, discussion, conclusions and practical recommendations. Graduation is conditioned in attending both field days and handing the final reports a month from the end of semester.