

ANALYSIS OF ROCK MASS DISCONTINUITIES (459.729)
1st semester, 2008

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Class hours: 3:00 ~ 5:30 Thu.

1. Description / objective

This course deals with the analysis technique of rock discontinuities which is one of the most important issues in rock engineering field. It focuses on probabilistic approach to describing the geometry of discontinuities such as orientation, frequency, spacing and size. The goal of this course is to teach and train students until they can produce the geometric model of rock discontinuities by themselves.

2. Text and reference

Text: Stephen D. Priest, Discontinuity Analysis For Rock Engineering, CHAPMAN & HALL, 1993

Reference: Stephen .D. Priest, Hemispherical Projection Methods in Rock Mechanics, London GEORGE ALLEN & UNWIN, 1985
International Journal of Rock Mechanics and Mining Sciences,
Rock Mechanics and Rock Engineering etc.

3. Schedule

Introduction & fundamental concepts (1~2)

Stereographic projection (3~4)

Distribution function of orientation (5~6)

Midterm test (8)

Frequency & Spacing(9 ~ 10)

Size (11 ~ 12)

Application and recent development (13~14)

Final test (15)

4. Grading plan

Midterm exam 35%, Final exam 35%, Assignments 20%, Attendance 10%

5. General

- Although the description of each topic will be handed out in the class, students are recommended to bring a notebook to write down the stuff written on a white board, especially derivation of important equations.

- Each assignment should be submitted normally until the next class.