

ROCK MECHANICS

31.08.2021 update

Lecture (45 min)	Date	Lecture contents (13 x 2h)
1	2021-09-13 Mon 9:15	Rock Mech course intro (25min), Development of RM (15 min) Intact rock strength and deformation (45 min)
2	2121-09-14 Tue 8:15	Shear behaviour of discontinuities (30 min) / RM classification (15 min) Rock mass classification (RQD and Q) (45 min)
3	2021-09-17 Fri 10:15	Rock mass classification (RMR and GSI) (45 min) Rock mass strength and deformation (45 min)
EX 1	2021-09-20	Exercise: Intact rock properties, Rock mass classification (9:15-12:00)
4	2021-09-21 Tue 8:15	<i>In situ</i> and induced stresses and measurements (45 min) Failure of intact rock and rock mass (45 min)
5	2021-09-24 Fri 10:15	Principles of Rock Mechanical design (15 min) Overview of underground mining methods 45 min)
EX 2	2021-09-27	Core logging Groups 1-4, Tunnel Mapping Group 1 (First group 8:00)
6	2021-09-28 Tue 8:15	Overview of underground mining methods (45 min) Mining method selection (45 min)
EX 2	2021-09-29	Tunnel Mapping, Group 2 and Group 4 (8:15-10:00 and 14:15-16:00)
EX 2	2021-09-30	Tunnel Mapping, Group 3 (14:15-16:00)
7	2021-10-01 Fri 10:15	Tunnel stability analysis (ground reaction curve) (45 min) Rock support overview (45 min)
EX 3	2021-10-04	Rock mass properties (9:15-12:00)
8	2021-10-05 Tue 8:15	Stability graph (45 min) Slope stability and failure (45 min)
Mod 1	2021-10-06	DIPS, Group A (8:15-10:00)
Mod 1	2021-10-07	DIPS, Group B (14:15-16:00)
9	2021-10-08 Fri 10:15	Slope stability and failure (45 min) Slope stability and failure (45 min)
EX 4	2021-10-11	Mining Method Selection, Open slope design with Stability Graph (9:15-12:00)
10	2021-10-12 Tue 8:15	Rockbolts including cable bolts (45 min) Shotcrete (45 min)
Mod 2	2021-10-13	FEM/RS2, Group A (8:15-10:00)
Mod 2	2021-10-14	FEM/RS2, Group B (14:15-16:00)
11	2021-10-15 Fri 10:15	Shotcrete (45 min) Backfill (45 min)
EX 5	2021-10-18	Support Design (9:15-12:00)
12	2021-10-19 Tue 8:15	Numerical methods to analyze rock mass stability (45 min) Numerical methods to analyze rock mass stability (45 min)
Mod 3	2021-10-20	UNWEDGE Group A (8:15-10:00)
Mod 3	2021-10-21	UNWEDGE Group B (14:15-16:00)
13	2021-10-22 Fri 10:15	Monitoring of rock mass performance (45 min) Monitoring of rock mass performance (45 min)