



Reactive Transport Modeling Course

Introduction to geo-environmental simulations and application for design of mine site reclamation

The Department of Energy Resources Engineering has the pleasure to invite you to a reactive transport modeling course (6 weeks, Non-credit course). Course teacher will be Prof. Thomas Pabst (Polytechnique Montreal, Canada) currently visiting Seoul National University.

Course is open to all and do not require any specific previous knowledge about numerical simulations. Only basic knowledge about geochemistry (e.g., oxidation and dissolution reactions) and water flow (e.g., Darcy's law) are necessary. The course aims mostly at mine site reclamation but can be useful to a wide range of geo-environmental applications, such as contaminant fate and transport, water quality prediction, and water treatment.

COURSE CONTENT	DATE*	TIME
Introduction to acid mine drainage generation and prevention & Numerical simulations in mine site reclamation design	2022-09-23	9:00-12:00
Presentation of reactive transport modeling MIN3P code	2022-09-30	9:00-12:00
Simulation of an AMD generating tailings impoundment <i>incl. water flow, oxygen diffusion and chemical reactions</i>	2022-10-07	9:00-12:00
Simulations of engineered cover system to control oxygen diffusion and prevent AMD generation	2022-10-14	9:00-12:00
Calibration of numerical simulations and data processing	2022-10-21	9:00-12:00
Tutoring session on individual projects OR practical case study problem	2022-10-28	9:00-12:00

**Course schedule may change depending on students' availability*

Location: Building 38 Room 418

Course attendees will need their own PC. Simulations will be conducted using the code MIN3P. A procedure will be sent to all attendees to install the program on their PC beforehand. Course will be given in English and is free of charge. Maximum number of participants: 10 students on a first come – first served basis.

For more information and to register, contact Prof. **Chung Eunhyea 정은혜** (echung@snu.ac.kr).