

Inverse Modeling Syllabus

Instructors: Stefan Finsterle, Lawrence Berkeley National Laboratory (LBNL)
Yingqi Zhang, Lawrence Berkeley National Laboratory (LBNL)
(Magnús Þór Jónsson, University of Iceland (UI))

Course Description (2 ECTS):

System Analysis, Inverse Modeling, Optimization

Objective:

The objective of this course is to provide the participants the fundamentals of Inverse Modeling and Optimization of Geothermal Systems.

Course Material Chapters:

Tuesday 3rd August

09:00 – 12:00

1. Introduction

Course Overview

2. System Analysis

Classification, statistical background, objective function,

13:00 – 16:00

Project work Tutorial iTOUGH2 example

Wednesday 4th August

09:00 – 12:00

3. Inverse Modeling and Optimization

13:00 – 16:00

Project work

Thursday 5th August

09:00 – 12:00

4. Inverse Analysis, Residual and Error Analysis

13:00 – 16:00

Project work

Course Material

- 1) *Lecture Notes*
- 2) *Research papers*

Course assessment:

Project work: Report (paper) and presentation 100%.