Reservoir Engineering
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Module number SE-CO-18	Credits 5 CP	Workload 150 h	Semester[s] 3. Sem.	Duration 1 Semester[s]	Group size 20

Courses a) Reservoir Engineering		Contact hours a) 3 WLH (45 h)	Self-study a) 105 h	Frequency a) each winter

Module coordinator and lecturer(s)

Prof. Dr. Erik Saenger

a) Prof. Dr. Erik Saenger

Admission requirements

Learning outcome, core skills

The students will learn the fundamentals of reservoir engineering. This broad range of knowledge will be taught with a special emphasis to geothermal and hydrocarbon exploration. After successful completion of the course, the students will be able:

- to understand microseismic monitoring
- to understand geophysical data from boreholes
- apply the fundamentals of reservoir engineering to estimate the risks of reservoir stimulations and to estimate reservoir permeability
- to transfer the fundamentals of reservoir engineering to scientific projects, e.g. to transfer
- the knowledge of several case histories to new sites and to plan a reservoir monitoring system

Contents

a)

- Fundamentals of reservoir engineering with the focus on geothermal applications
- Interpretation of downhole measurements
- Interpretation of spinner results
- Measuring reservoir permeability
- Conceptual models of geothermal fields
- Reservoir modelling
- Reservoir monitoring
- Reservoir stimulation
- Case Histories

Educational form / Language

a) Tutorial (1 WLH) / Lecture (2 WLH) / English

Examination methods

• Oral exam 'Reservoir Engineering' (60 min., Part of modul grade 100 %, Presentation with lecture (45 min) + Discussion (15 min))

Requirements for the award of credit points

- Pass module exam

Module applicability

- M.Sc. Subsurface Engineering

Weight of the mark for the final score

Percentage of total grade [%] = 5 * 100 * FAK / DIV

FAK: The weighting factors can be taken from the table of contents.

DIV: The values can be taken from the table of contents.

Further Information