Module Nr.	Credits	Workload	Semester	Frequency	Duration
SE-CO-18	5 CP	150 h	3	Yearly (WS)	1 semester
Courses			**Contact time**	**Self-study**	**Group size**
Reservoir Engineering			3 h/week	105 h	20

Reservoir Engineering

Learning outcomes

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

Content

- 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

Teaching Methods / Language

Lectures 2 h/week, Exercises 1 h/week. / English

Modes of assessment

final examination or oral talk

Requirements for the award of credit points

oral talk (60 min): Presentation with lecture (45 min) + Discussion (15 min)

Module applicability (in other study programs)

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Weight of the mark for the final score

4.17 %

Module coordinator and lecturer(s)

Prof. Dr. Erik H. Saenger