Module Nr.	Credits	Workload	Semester	Frequency	Duration
SE-O-1	2 CP	60 h	2	Yearly (SS)	1 week
Courses			**Contact time**	**Self-study**	**Group size**
Practical Training on Tunneling and Pipeline Construction Methods			3 h/week	15	20 Students

Practical Training on Tunneling and Pipeline Construction Techniques

Learning outcomes

The module is designed to give students a basic understanding of the processes and techniques used in tunnel and pipeline construction that are common processing and building material testing methods. The students should learn to independently apply standards from these areas in a practice-oriented way and to develop a corresponding basic understanding. They should be acquired to critically examine the usual construction site conditions and the conditions of the techniques of tunnel and pipeline construction and foundation engineering.

Content

The Practical Training mediates basic knowledge to selected techniques of Tunneling, Pipeline Construction and Foundation Engineering:

- Sprayed Concrete (Shotcrete) in conventional tunneling
- Early strength testing of sprayed concrete
- Foam conditioning of soil in mechanized tunneling
- Sealing techniques: welding and testing of plastic geomembranes
- Chemical sealing and rehabilitation processes
- In-situ inspection of pipelines
- Application of bentonite suspensions: standardized test methods

Teaching Methods / Language

Practical training in the laboratories, introductory lectures / English or German

Modes of assessment

Practical Training / Seminar

Requirements for the award of credit points

Full time participation

Module applicability (in other study programs)

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Weight of the mark for the final score

1.7 %

Module coordinator and lecturer(s)

Prof. Dr. M. Thewes

Other information

Module Nr.	Credits	Workload	Semester	Frequency	Duration