

Practical Training on Tunneling and Pipeline Construction Techniques					
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Module number BI-W03/SE-O-1	Credits 2 CP	Workload 60 h	Semester[s] 2. Sem.	Duration 1 Week Semester[s]	Group size 20
Courses a) Practical Training on Tunneling and Pipeline Construction Methods			Contact hours a) 3 WLH (45 h)	Self-study a) 15 h	Frequency a) each summer
Module coordinator and lecturer(s) Prof. Dr.-Ing. Markus Thewes a) Prof. Dr.-Ing. Markus Thewes					
Admission requirements					
Learning outcome, core skills <p>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.</p>					
Contents <p>a)</p> <p>The Practical Training results in basic knowledge to selected and to monitor techniques of Tunneling, Pipeline Construction and Foundation Engineering:</p> <ul style="list-style-type: none"> • 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 of leaks and concrete damage • In-situ inspection of utility pipes • Application of bentonite suspensions: standardised test methods 					
Educational form / Language <p>a) Internship / Block seminar / English</p>					
Examination methods <ul style="list-style-type: none"> • Internship 'Practical Training on Tunneling and Pipeline Construction Methods' (60 h., ungraded, Regular participation) 					
Requirements for the award of credit points <ul style="list-style-type: none"> • Full time participation 					
Module applicability <ul style="list-style-type: none"> • MSc. Civil Engineering • MSc. Subsurface Engineering 					
Weight of the mark for the final score					

Percentage of total grade [%] = 0, ungraded

Further Information

Usually takes place in the first week of the lecture-free period in the summer semester.