

Design of Geotechnical Structures – Shallow and Deep Foundations					
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Module number SE-CO-6	Credits 6 CP	Workload 180 h	Semester[s] 2. Sem.	Duration 1 Semester[s]	Group size no limitation
Courses a) Design of Geotechnical Structures – Shallow and Deep Foundations			Contact hours a) 4 WLH (60 h)	Self-study a) 120 h	Frequency a) each summer
Module coordinator and lecturer(s) Prof. Dr.-Ing. Torsten Wichtmann a) Dr.-Ing. Nazanin Irani, Prof. Dr.-Ing. Torsten Wichtmann					
Admission requirements					
Learning outcome, core skills After successfully completing the module, the students are able to <ul style="list-style-type: none"> perform the proofs of ultimate limit state and serviceability limit state for different types of foundations in accordance with Eurocode 7, supported by in-situ testing and laboratory experiments, recommend the appropriate foundation type according to soil conditions, expected loads and design requirements 					
Contents a) The course deals with the design of the following foundation types: <ul style="list-style-type: none"> Shallow single and strip foundations Plate foundations Single pile foundations under vertical loading Single pile foundations under horizontal loading Pile groups under vertical or horizontal loading Drilled-shaft (caisson) foundations 					
Educational form / Language a) Tutorial (2 WLH) / Lecture (2 WLH) / English					
Examination methods <ul style="list-style-type: none"> Written exam 'Design of Geotechnical Structures – Shallow and Deep Foundations' (180 min., Part of modul grade 100 %) Homework with GGU application to geotechnical problems, giving bonus points for the exam. 					
Requirements for the award of credit points <ul style="list-style-type: none"> Passed final written examination 					
Module applicability <ul style="list-style-type: none"> M.Sc. Subsurface Engineering 					
Weight of the mark for the final score Percentage of total grade [%] = $6 \cdot 100 \cdot \text{FAK} / \text{DIV}$ 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
