



<b>module no.</b>	<b>module name</b>	<b>responsible lecturer</b>
BIWE-14	Material Models for Soils	Prof. Herle
<b>contents and qualifications</b>	content of the module: essential aspects of soil mechanics, linear and nonlinear elasticity, perfect plasticity, boundary stress conditions, critical states, Cam clay models and hypoplasticity. On completion of the module students will be able to use material models for soils for advanced geotechnical analyses.	
<b>types of teaching and learning</b>	2 SWS* lecture and 1 SWS tutorial and also self-study	
<b>prerequisites for participation</b>	The competencies covered in modules BIWO-02 and BIWO-05 are prerequisite to this module.	
<b>usability</b>	The module is one of the required elective modules in the Master's programme Advanced Computational and Civil Engineering Structural Studies – ACCESS of which students must choose seven.	
<b>prerequisites for earning credits</b>	Students earn credits after having passed the module exam. The module exam consists of a written exam (90 minutes) and an ungraded assigned paper with a total of 30 hours.	
<b>credits and grades</b>	Students can earn 4 credit points through the module. The module grade is equivalent to the grade earned for the written exam if the assigned paper rated 'pass'. Otherwise, the module grade is the weighted average of the grade for the written exam and grade 5 for the assigned paper (§ 10 par. 1 sentence 5 PO); the weighting factors applied to the written exam and the assigned paper are two and one, respectively.	
<b>frequency of the module</b>	The module is offered each summer semester.	
<b>workload</b>	total workload 120 hours	
<b>duration of the module</b>	1 semester	
<b>module reading list</b>	D. Muir Wood: Geotechnical Modelling D. Muir Wood: Soil Behaviour and Critical State Soil Mechanics	