

English taught lectures at the Faculty of Civil Engineering, RWTH Aachen University

Due to organizational modifications, the accuracy of this information may be subject to change.

For further information please contact international@fb3.rwth-aachen.de

Faculty of
Civil Engineering



Course Name and Link to (English) Module Description		Language ¹⁾	Level	Semester Winter/ Summer	Credit Points (ECTS)	Lecturer
Advanced Geographic Information Systems in Water and Energy Management		English	M.Sc.	W	4	Prof. Nacken
Advanced Structural Analysis		English	M.Sc.	W	8	Prof. Klinkel
Brittle-Matrix Composite Structures: Modeling and Design Methods		English	M.Sc.	S	8	Dr.-Ing. Chudoba
Building Information Modeling	(Geo-)Databases	English/ German	M.Sc.	W	4	Prof. Blankenbach
	2D/3D Building Information Systems			S	3	
Building Performance Simulation		English	M.Sc.	S	6	Dr.-Ing. Jérôme Frisch
Coastal Engineering		English	M.Sc.	S	4	Prof. Schüttrumpf
Concrete Design for Sustainability		English	M.Sc.	S	3	Prof: Matschei
Continuum Mechanics		English	M.Sc.	S	8	PD Dr. Simon
Ecolabeling		English	M.Sc.	S	4	Prof. Traverso
Engineering Hydrology		English	M.Sc.	S	5	Prof. Nacken
Environmental Sustainability in Transport Engineering		English	M.Sc.	W	6	Prof. Oeser
Expanding Engineering Limits: Culture, Diversity and Gender - Lecture Part		English	M.Sc.	W	5	Prof. Leicht-Scholten
Expanding Engineering Limits: Culture, Diversity and Gender - In Practice	Reshaping Engineering Culture with Design Thinking ²⁾	English	M.Sc.	W	3	Prof. Leicht-Scholten
	Discovering Innovation - Proejct Work Beyond Engineering ³⁾			S	4	
Finite-Element-Technology		English	M.Sc.	S	6	Prof. Reese

Flood Risk Management	English	M.Sc.	W	4	Prof. Nacken
Geographic Information Systems in Water Management I	English	M.Sc.	S	4	Prof. Nacken
Geographic Information Systems in Water Management II	English	M.Sc.	W	4	Prof. Nacken
Geotechnical Project Study	English	M.Sc.	S	5	Prof. Fuentes
Global Changes and Sustainable Development	English	M.Sc.	W	4	Dr. Sewilam
Hydraulic Engineering Experiments ⁴⁾	English	M.Sc.	W	4	Prof. Schüttrumpf
Hydraulic Engineering Seminar	English/ German	M.Sc.	W / S	3	Dr. Catrina Brüll
Hydrodynamic Simulation ⁴⁾	English	M.Sc.	W	4	Prof. Schüttrumpf
Hydromechanical Internship	English / German	B.Sc.	S	5	
Hydromechanics III	Lecture and Exercise in German Language English Course Material and English Exam available	M.Sc.	W	4	Prof. Schüttrumpf
Industrial Wastewater Treatment	English	M.Sc.	W	4	Prof. Pinnekamp
Innovation & Diversity	English	M.Sc.	W	4	Prof. Leicht-Scholten
Introduction to Finite Element Method for Structural Analysis	English/ German	M.Sc.	W	4	Mr. Klarmann
Life Cycle Assessment - Consolidation	English	M.Sc.	W	5	Prof. Traverso
Matrix and Tensor Calculus	English	M.Sc.	W	5	PD Dr. Simon, Dr. Brepols
Mechanics of Engineering Materials	English	M.Sc.	S	5	Prof. Reese
Mechanics of Materials	English	M.Sc.	W	8	Prof. Reese

Mobility Research and Transportation Modeling		English	M.Sc.	S	6	Mr. Kuhnimhof
Nonlinear Finite Element Methods for Solids		English	M.Sc.	S	5	Prof. Sauer Prof. Reese
Nonlinear Finite Element Methods in Civil Engineering		English	M.Sc.	S	4	Prof. Reese, Prof. Klinkel
Nonlinear Structural Analysis		English	M.Sc.	S	8	Prof. Klinkel
Numerical Methods		English	M.Sc.	W	4	Mr. Klarmann
Numerical Methods in Structural Mechanics and Dynamics		English	M.Sc.	W	12	Prof. Reese, Prof. Klinkel
Pavement Dynamics		English	M.Sc.	W	6	Prof. Oeser
Plasticity and Fracture Mechanics		English	M.Sc.	S	6	Dr. Brepols
Plates and Shells		English	M.Sc.	W	8	Prof. Klinkel
Practical Course in Water Engineering and Management		English	B.Sc.	S	5	Prof. Schüttrumpf
Railway Timetabling, Operations and Control Systems⁵⁾	Railway Capacity Management and Operations	English	M.Sc.	W	6	Prof. Nießen; Dr. Jacobs
	Railway Operations Lab			W		
	Railway Control Systems			S		
Railway Systems		English	M.Sc.	W	6	Prof. Nießen
Reshaping Engineering Culture with Design Thinking		English	M.Sc.	W	3	Prof. Leicht-Scholten
Sanitary Engineering in Developing Countries		English	M.Sc.	W	2	Prof. Pinnekamp
Sediment Transport and Morphodynamics (River Morphodynamics)		English	M.Sc.	W	4	Dr. Frings
Seminar on Hydraulic Engineering		English	M.Sc.	W and S	3	Prof. Schüttrumpf
Social Development and Sustainability⁶⁾		English	M.Sc.	S	4	Prof. Leicht-Scholten

Soil Mechanics Specialization	English	M.Sc.	S	6	Prof. Fuentes
Structural Control and Health Monitoring	English	M.Sc.	W	3	Dr. Altay
Structural Dynamics	English	M.Sc.	W	8	Prof. Klinkel
Structural Steel III	English	M.Sc.	W	8	Prof. Feldmann
Sustainability Assessment Methods and Tools	English	M.Sc.	S	4	Prof. Traverso
Sustainability Strategies in Policy and Companies	English	M.Sc.	W	4	Prof. Traverso
Timber Structures I	English	M.Sc.	W	4	Prof. Hoffmeister
Timber Structures II	English	M.Sc.	S	8	Prof. Hoffmeister
Water and Wastewater Treatment Technologies	English	M.Sc.	S	4	Prof. Wintgens
Water Resources Modelling	English	M.Sc.	W	4	Prof. Nacken
Water-Energy-Food-Nexus	English	M.Sc.	S	4	Dr. Sewilam
Wind Engineering	English	M.Sc.	S	4	Prof. Kemper

- 1) If in the language section the statement “English/ German” appears it is possible that the course will only be held in English once exchange students or other non-German speakers are present; please contact the course responsible prior to the beginning of the course (or at the beginning of the first lecture) to state that you would wish the course to be held in English if not already done so by the lecturer
- 2) Please note that to participate in this course you have to participate in the course “Expanding Engineering Limits: Culture, Diversity and Gender - Lecture Part” in the same semester
- 3) Please note that participation in the course is only possible if you have successfully participated in the courses:
 - Expanding Engineering Limits: Culture, Diversity and Gender - Lecture Part
and
 - Reshaping Engineering Culture with Design Thinking

- 4) This course will only be held in English language once international students are present; please contact the course responsible at the beginning of the semester asking for the course to be held in English.
- 5) Please note that there is only **one** exam for all three courses of this module that can only be taken after attending all three courses. Please do also pay attention that the courses are offered in different semesters (Summer/Winter). The order in which the courses are taken is irrelevant. However, basic knowledge from the course "Railway Systems" should be available for Railway Control Systems and Railway Capacity Management and Operations.
- 6) This course will not be available in the summer semester 2022