

Lectures held in English / Department of Architecture, Civil Engineering and Environmental Sciences / as of 20 August 2019

Title in English	Title in German	ECTS	Institute of ...	Professor / University Lecturer	Contact Person	E-Mail of Contact Person	Term	Academic level	Study programme / specialisation	Module number	Comment
Linear Solid Mechanics	Lineare Kontinuumsmechanik	6	Applied Mechanics	Prof. Dr.-Ing. Laura De Lorenzis	Dr. Roland Kruse	r.kruse@tu-bs.de	winter	Master	Civil Engineering	BAU-STD4-21	
Non-linear Solid Mechanics	Nichtlineare Kontinuumsmechanik	6	Applied Mechanics	Prof. Dr.-Ing. Laura De Lorenzis	Dr. Roland Kruse	r.kruse@tu-bs.de	summer	Master	Civil Engineering	BAU-STD3-83	
Introduction to Fracture Mechanics	Einführung in die Bruchmechanik	6	Applied Mechanics	Prof. Dr.-Ing. Laura De Lorenzis	Dr. Roland Kruse	r.kruse@tu-bs.de	winter	Master	Civil Engineering	BAU-STD4-13	
Isogeometric Methods	Isogeometrische Methoden	6	Applied Mechanics	Prof. Dr.-Ing. Laura De Lorenzis	Dr. Roland Kruse	r.kruse@tu-bs.de	summer	Master	Civil Engineering	NN	
Sustainable Cyber Physical Production Systems	Nachhaltige cyber-physische Produktionssysteme	6	Machine Tools and Production Technology	Prof. Dr.-Ing. Christoph Herrmann Dr.-Ing. Sebastian Thiede	Sebastian Gellrich	s.gellrich@tu-braunschweig.de	winter	Master	Environmental Engineering / Environmental Sustainability and Life Cycle Engineering	MB-IWF-58	
Energy Efficiency in Production Engineering	Energieeffizienz in der Produktionstechnik	6	Machine Tools and Production Technology	Prof. Dr.-Ing. Christoph Herrmann Dr.-Ing. Sebastian Thiede	Erika Pierri Marcus Vogt	erika.pierri@tu-braunschweig.de marcus.vogt@tu-braunschweig.de	summer	Master	Environmental Engineering / Environmental Sustainability and Life Cycle Engineering	MB-IWF-49	
Indo-German Challenge for Sustainable Production	Indo-German Challenge for Sustainable Production	5	Machine Tools and Production Technology	Dr.-Ing. Sebastian Thiede, Prof. Dr.-Ing. Christoph Herrmann	Benjamin Uhlig	b.uhlig@tu-braunschweig.de	winter	Master	Environmental Engineering / Environmental Sustainability and Life Cycle Engineering	MB-IWF-73	
Environmental and Sustainability Management in Industrial Application	Environmental and Sustainability Management in Industrial Application	5	Machine Tools and Production Technology	Dr. Stephan Krinke, Prof. Dr.-Ing. Christoph Herrmann	Benjamin Uhlig, Erika Pierri	b.uhlig@tu-braunschweig.de; erika.pierri@tu-braunschweig.de	summer	Master	Environmental Engineering / Environmental Sustainability and Life Cycle Engineering	MB-IWF-68	
Material Resources Efficiency in Engineering	Materialeffizienz im Ingenieurwesen	6	Machine Tools and Production Technology	Prof. Dr.-Ing. Christoph Herrmann	Johanna Hagen	j.hagen@tu-braunschweig.de	summer	Master	Environmental Engineering / Environmental Sustainability and Life Cycle Engineering	MB-IWF-50	
Life Cycle Assessment for Sustainable Engineering	Lebenszyklusanalyse für nachhaltiges Ingenieurwesen	6	Machine Tools and Production Technology	Prof. Dr.-Ing. Christoph Herrmann	Julian Rickert	j.rickert@tu-braunschweig.de	winter	Master	Environmental Engineering / Environmental Sustainability and Life Cycle Engineering	MB-IWF-46	
Methods and Tools for Life Cycle Oriented Vehicle Engineering	Methoden und Werkzeuge für ein lebenszyklusorientiertes Fahrzeugingenieurwesen	6	Machine Tools and Production Technology	Prof. Dr.-Ing. Christoph Herrmann Prof. Dr.-Ing. Thomas Vietor	Malte Schäfer Antel Dé	malte.schaefer@tu-braunschweig.de a.der@tu-braunschweig.de	winter	Master	Environmental Engineering / Environmental Sustainability and Life Cycle Engineering	MB-IWF-51	
Plant-based Natural Fibre Reinforcements in Construction		3	Building Materials, Concrete Construction and Fire Safety	Univ. Jun.-Prof. Dr. Libo Yan	Univ. Jun.-Prof. Dr. Libo Yan	lyan@tu-braunschweig.de	winter	Master	Civil Engineering, Environmental Engineering, Sustainable Design	BAU-IBMB-057	
Advance Composite Materials in Construction		3	Building Materials, Concrete Construction and Fire Safety	Univ. Jun.-Prof. Dr. Libo Yan	Univ. Jun.-Prof. Dr. Libo Yan	lyan@tu-braunschweig.de	summer	Master	Civil Engineering, Environmental Engineering, Sustainable Design	BAU-IBMB-001	
Mechanical Behaviour of Asphalt materials		2	Braunschweig Pavement Engineering Centre	Prof. Dr.-Ing. Augusto Cannone Falchetto	Dr.-Ing. Stephan Büchler	s.buecher@tu-braunschweig.de	summer	Master	Civil Engineering, Environmental Engineering, Transportation Engineering	BAU-SW-005	
Computational Fluid Mechanics		5	Computational Modeling in Civil Engineering	Prof. Dr.-Ing. Manfred Krafczyk	Prof. Dr.-Ing. Manfred Krafczyk	kraft@irmb.tu-bs.de	summer	Master	Civil Engineering, Environmental Engineering, Computational Sciences in Engineering	BAU-IRMB-044	
Intermediate Programming	Fortgeschrittenes Programmieren	5	Computational Modeling in Civil Engineering	Prof. Dr.-Ing. Manfred Krafczyk	Prof. Dr.-Ing. Manfred Krafczyk	kraft@irmb.tu-bs.de	summer	Master	Computational Sciences in Engineering	INF-CSE2-60	
Algorithms & Programming	Algorithmen & Programmierung	5	Computational Modeling in Civil Engineering	Prof. Dr.-Ing. Manfred Krafczyk	Prof. Dr.-Ing. Manfred Krafczyk	kraft@irmb.tu-bs.de	summer	Master	Computational Sciences in Engineering	INF-CSE2-53	
Modelling and Solving engineering problems with Computer-Algebrasystems	Modellierung und Lösung von Ingenieurproblemen mit Computeralgebra-Systemen		Computational Modeling in Civil Engineering	Prof. Dr. Martin Geier	Prof. Dr. Martin Geier	geier@irmb.tu-bs.de	winter	Master	Civil Engineering, Environmental Engineering, Computational Sciences in Engineering	BAU-IRMB-030	
Advanced Object Oriented C++ Techniques	Fortgeschrittene Techniken der Objektorientierung in C++	5	Computational Modeling in Civil Engineering	Prof. Dr. Manfred Krafczyk	Prof. Dr.-Ing. Manfred Krafczyk	kraft@irmb.tu-bs.de	winter	Master	Computational Sciences in Engineering	PRG-2(2013)	
General Continuum Physics	Allgemeine Kontinuumsphysik	5	Computational Modeling in Civil Engineering	Prof. Dr. Manfred Krafczyk	Prof. Dr.-Ing. Manfred Krafczyk	kraft@irmb.tu-bs.de	summer	Master	Computational Sciences in Engineering	INF-CSE2-54	
Conservation Biology	Naturschutz-Biologie	2	Geocology	Prof. Dr. Frank Suhling	Prof. Dr. Frank Suhling	f.suhling@tu-braunschweig.de	winter	Master	Environmental Sciences	GEA-STD2-23	
Conservation Science	Naturschutzwissenschaften	2	Geocology	Prof. Dr. Frank Suhling	Prof. Dr. Frank Suhling	f.suhling@tu-braunschweig.de	summer	Master	Environmental Engineering	GEA-STD-95	
Railway Signalling Principles	Prinzipien der Eisenbahnsicherungstechnik	6	Railway Systems Engineering and Traffic Safety	Prof. Dr.-Ing. Jörn Pachi	Prof. Dr.-Ing. Jörn Pachi	j.pachi@tu-braunschweig.de	winter	Master	Transportation Engineering, Civil Engineering	BAU-STD4-90	Cannot be combined with the German module "Bahnsicherungstechnik".
Introduction to Finite Element Methods	Einführung in die Finite-Element-Methoden	5	Structural Analysis	apl. Prof. Dr.-Ing. Ursula Kowalsky	Rahav Venkateswaran M.Sc.	r.venkateswaran@tu-braunschweig.de	summer	Master	Computational Sciences in Engineering	INF-CSE2-68	
Masterthesis	Masterthesis	30	Sustainable Urbanism	Prof. Dr. Vanessa Miriam Carlow	Grace Abou Joude	isu@tu-braunschweig.de	winter	Master	Architecture		
City and Society	Stadt und Gesellschaft	6	Sustainable Urbanism	Prof. Dr. Vanessa Miriam Carlow	Majd Murad	isu@tu-braunschweig.de	winter	Bachelor / Master	Architecture, Sustainable Design, others (open to interdisciplinary programs)	ARC-ISL-036	
Various Subjects, please see list of modules: https://www.tu-braunschweig.de/Medien-DB/cse/modulhandbuch15.pdf								Master	Interdisciplinary Bilingual Master's Program: Computational Sciences in Engineering		