



Mechanical Engineering

Department of Architecture, Civil Engineering and Environmental Sciences

Lectures held in English

Last update: 25.09.2019

Title in English	Title in German	Institute of...	Professor/University Lecturer	Contact Person	E-Mail of Contact Person	Semester	Level	Study Programme / specialisation	Module number	Comment
Advanced Aircraft Design II	Advanced Aircraft Design II	Flugzeugbau und Leichtbau	Prof. Dr. A. Elham	Prof. Dr. A. Elham	a.elham@tu-braunschweig.de	summer	Master	Biological and Chemical Engineering, Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Automotive Engineering	MB-IFL-055	
Computational Biomechanics	Numerische Biomechanik	Festkörpermechanik	Prof. Dr.-Ing. Markus Böhl	Prof. Dr.-Ing. Markus Böhl	m.boehl@tu-bs.de	summer	Bachelor	Mechanical Engineering, Industrial Engineering	MB-IFM-8	
Computational Acoustics with Laboratory	Numerische Akustik mit Labor	Akustik	Prof. Dr. Sabine C. Langer	Prof. Dr. Sabine C. Langer	s.langer@tu-braunschweig.de	summer	Master	Mechanical Engineering, Computational Sciences in Engineering	MB-W-24	
Computer Aided Process Engineering I - Introduction	Computergestützte Verfahrenbearbeitung I - Einführung	Chem. & Therm. Verfahrenstechnik	Prof. Dr.-Ing. S. Scholl	Prof. Dr.-Ing. S. Scholl	s.scholl@tu-bs.de	summer	Master	Biochemical and Chemical Engineering, Mechanical Engineering, Industrial Engineering, Biotechnology	MB-ICTV-26	
Energy Efficiency in Production Engineering (optional lab exercise)	Energieeffizienz in der Produktionstechnik (optionales Labor)	Werkzeugmaschinen und Fertigungstechnik	Prof. Dr.-Ing. C. Herrmann, Dr.-Ing. S. Thiede	Artem Turetskiy	a.turetskiy@tu-braunschweig.de	summer	Master	Mechanical Engineering, Industrial Engineering	MB-IFW-52 (IMB-IFW-49)	
Environmental and sustainability Management in Industrial Application	Umwelt- und Nachhaltigkeitsmanagement in der industriellen Anwendung	Werkzeugmaschinen und Fertigungstechnik	Dr. Stephan Krinke	Erika Pierr, Benjamin Uhlig	b.uhlig@tu-braunschweig.de , e.pierr@tu-braunschweig.de	summer	Master	Mechanical Engineering, Industrial Engineering, Biomedical Engineering, Automotive Engineering, Aerospace Engineering, Environmental Engineering	MB-IFW-68	
Fundamentals of Nanotechnology	Fundamentals of Nanotechnology	Partikeltechnik	Prof. Dr. G. Garnwetter	Prof. Dr. G. Garnwetter	g.garnwetter@tu-bs.de	summer	Master	Mechanical Engineering, Industrial Engineering	MB-IPAT-30	
Innovation through Intuition and Inspiration	Innovation durch Intuition und Inspiration	Akustik	Prof. Dr.-Ing. Sabine Langer	Prof. Dr.-Ing. Sabine Langer	s.langer@tu-braunschweig.de	summer	Master	Mechanical Engineering, Biomedical Engineering, Aerospace Engineering, Automotive Engineering	MB-IOA-01	
Lasers in Science and Engineering	Laser in Natur- und Ingenieurwissenschaften	Mikrotechnik	Jun.-Prof. Dr. I. Constantinou	Jun.-Prof. Dr. I. Constantinou	i.constantinou@tu-braunschweig.de	summer	Master	Mechanical Engineering, Mechatronics, Biological and Chemical Engineering	MB-MT-31	
Material resources efficiency in engineering	Materialeffizienz im Ingenieurwesen	Werkzeugmaschinen und Fertigungstechnik	Prof. Dr.-Ing. C. Herrmann	Johanna Sophie Hagen, Julian Rieckert	j.hagen@tu-braunschweig.de , j.riekert@tu-braunschweig.de	summer	Master	Mechanical Engineering, Industrial Engineering, Biomedical Engineering	MB-IFW-50	
Methods of Uncertainty Analysis and Quantification	Methoden zur Analyse und Quantifizierung von Unsicherheiten	Dynamics and Vibrations	Prof. Dr.-Ing. Ulrich Römer	Prof. Dr.-Ing. Ulrich Römer	u.roemer@tu-braunschweig.de	summer	Master	Mechanical Engineering, Computational Sciences in Engineering	MB-DuS-42	
Microfluidic Systems (optional lab exercise: basic Lab-on-a-Chip or Lab-on-a-Chip)	Microfluidic Systems (optionales Labor: Grundgenfachlabor oder Labor)	Mikrotechnik	Prof. Dr. A. Dietzel	Jonathan Kottmeier	j.kottmeier@tu-braunschweig.de	summer	Master	Mechanical Engineering, Bioengineering, Biological and Chemical Engineering, Aerospace Engineering, Pharmaceutical Engineering, Automotive Engineering, Industrial Engineering	MB-MT-17 (MB-MT-28 or MB-MT-26)	
Post-processing of Numerical and Experimental Flow Data	Auswertung von numerischen und experimentellen Strömungsdaten	Strömungsmechanik	Dr. Richard Semann	Dr. Richard Semann	r.semman@tu-bs.de	summer	Master	Aerospace Engineering	MB-ISM-32	
Simulation of Turbulent Flow	Simulation turbulenter Strömungen	Strömungsmechanik	Prof. Dr. R. Akkermans	Prof. Dr. R. Akkermans	r.akkermans@tu-bs.de	summer	Master	Aerospace Engineering, Mechanical Engineering	MB-ISM-31	
Spaceflight Technology - Manned Spaceflight	Raumfahrttechnik bemannter Systeme	Raumfahrtssysteme / Space Systems	Dr. Peter Eichler (external lecturer)	Isa Häfner	i.haefner@tu-braunschweig.de	summer	Master	Biological and Chemical Engineering, Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Automotive Engineering	MB-ILK-07	
Thermodynamics and Statistics	Thermodynamik und Statistik	Thermodynamik	Prof. Dr. A. Elham	Prof. Dr. A. Elham	a.elham@tu-bs.de	summer	Master	Mechanical Engineering	MB-IF-03	
Topology optimization	Topology optimization	Flugzeugbau und Leichtbau	Prof. Dr. A. Elham	Prof. Dr. A. Elham	a.elham@tu-braunschweig.de	summer	Master	Biological and Chemical Engineering, Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Automotive Engineering	MB-IFL-047	
Adaptions	Studienkräft Adaptions	Adaptions und Funktionsintegration	Prof. Dr.-Ing. Michael Sinapius	Prof. Dr.-Ing. Michael Sinapius	m.sinapius@tu-bs.de	winter	Master	Mechatronics	MB-IAF-01	
Advanced Aircraft Design I	Advanced Aircraft Design I	Flugzeugbau und Leichtbau	Prof. Dr. A. Elham	Prof. Dr. A. Elham	a.elham@tu-braunschweig.de	winter	Master	Biological and Chemical Engineering, Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Automotive Engineering	MB-IFL-054	
Application of Commercial FE-Software	Anwendung kommerzielle FE-Software	Festkörpermechanik	Prof. Dr.-Ing. Markus Böhl	Prof. Dr.-Ing. Markus Böhl	m.boehl@tu-bs.de	winter	Master	Mechanical Engineering, Industrial Engineering, Mechatronics, Mobility and Traffic, Automobile Technology, Biochemical Engineering, Aerospace Engineering	MB-IFM-35	
Applications of Microtechnology (optional lab exercise)	Anwendungen der Mikrosystemtechnik (optionales Labor)	Mikrotechnik	Prof. Dr. A. Dietzel, Dr.-Ing. M. Leester-Schädel	Jan Busche	j.busche@tu-braunschweig.de	winter	Master	Mechanical Engineering, Bioengineering, Biological and Chemical Engineering, Aerospace Engineering, Pharmaceutical Engineering, Automotive Engineering, Industrial Engineering	MB-MT-07 (MB-MT-24)	
Combustion Chemistry	Chemie der Verbrennung	Verbrennungskraftmaschinen	Prof. Ravi Fernandes	Prof. Ravi Fernandes	r.fernandes@ptb.de	winter	Master	Mechanical Engineering, Automotive Engineering, Aerospace Engineering	MB-IVB-16	
Dimensional Metrology for Precision Engineering	Dimensionelle Messtechnik für die Präzisions-Fertigungstechnik	Produktionsmesstechnik	Dr.-Ing. Gaojiang Dai (PTB)	Prof. Dr.-Ing. Bainer Tutsch	b.tutsch@tu-bs.de	winter	Master	Messtechnik und Analytik		
Electrochemical Energy Engineering	Energy and Systemverfahrenstechnik	Energie und Systemverfahrenstechnik	Prof. Dr.-Ing. U. Krewer	Prof. Dr.-Ing. U. Krewer	u.krewer@tu-braunschweig.de	winter	Bachelor	Biological, Chemical and Pharmaceutical Engineering, Bioengineering, Industrial Engineering, Mechanical Engineering	MB-WuB-40	
Finite Element Method II	Finite Elemente Methoden II	Flugzeugbau und Leichtbau	Dr.-Haupt / Prof. Herst	Dr.-M. Haupt	m.haupt@tu-bs.de	winter	Master	Aerospace, CSE, Mech. Engg.	MB-IFL-01	
Fluid Mechanics	Strömungsmechanik	Strömungsmechanik	Prof. Dr. R. Akkermans	Prof. Dr. R. Akkermans	r.akkermans@tu-bs.de	winter	Master	Computational Science in Engineering	INF-CSE-92	
Future Production Systems	Future Production Systems	Werkzeugmaschinen und Fertigungstechnik	Prof. Dr.-Ing. C. Herrmann, Dr.-Ing. Sebastian Thiede	Marc-André Filz, Max Juraszek	m.filz@tu-braunschweig.de , m.juraszek@tu-braunschweig.de	winter	Master	Mechanical Engineering, Industrial Engineering, Biomedical Engineering, Automotive Engineering, Aerospace Engineering, Technology oriented Management	MB-IFW-63	
Interdisciplinary research module - battery	Interdisziplinäres Forschungsmodul Batterie	Energie und Systemverfahrenstechnik	Prof. Dr.-Ing. U. Krewer, Prof. Dr.-Ing. Arno Kwade, Prof. Dr.-Ing. Jürgen Köhler	Prof. Dr.-Ing. U. Krewer	u.krewer@tu-braunschweig.de	winter	Master	Biological and Chemical Engineering	MB-WuB-44	Organized by three institutes, part of IPAT is in german
Introduction to BioMEMS	Einführung in BioMEMS	Mikrotechnik	Jun.-Prof. Dr. I. Constantinou	Jun.-Prof. Dr. I. Constantinou	i.constantinou@tu-braunschweig.de	winter	Master	Mechanical Engineering, Mechatronics, Biological and Chemical Engineering	MB-MT-052	Bachelor students are also welcome
Life Cycle Assessment for sustainable engineering (optional lab exercise)	Lebenszyklusanalyse für nachhaltiges Ingenieurwesen (optionales Labor)	Werkzeugmaschinen und Fertigungstechnik	Prof. Dr.-Ing. C. Herrmann	Nicolas von Drascheffels	n.von.drascheffels@tu-braunschweig.de	winter	Master	Mechanical Engineering, Industrial Engineering, Biomedical Engineering	MB-IFW-56 (IMB-IFW-54)	
Methods and tools for life cycle oriented vehicle engineering	Methoden und Werkzeuge für ein lebenszyklusorientiertes Fahrzeugingenieurwesen	Werkzeugmaschinen und Fertigungstechnik, Funktionsintegration	Prof. Dr.-Ing. C. Herrmann, Prof. Dr.-Ing. Victor	Antal Zoltán Dér, Malte Schäfer	m.schaefder@tu-braunschweig.de , v.der@tu-braunschweig.de	winter	Master	Mechanical Engineering, Industrial Engineering, Biomedical Engineering, Electromobility	MB-IFW-51	
Multidisciplinary Design Optimization	Multidisciplinary Design Optimization	Flugzeugbau und Leichtbau	Prof. Dr. A. Elham	Prof. Dr. A. Elham	a.elham@tu-braunschweig.de	winter	Master	Biological and Chemical Engineering, Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Automotive Engineering	MB-IFL-048	
Modelling and Simulation in Joining Technology	Modellieren und Simulieren in der Flügertechnik	Flüge- und Schweißtechnik	Prof. Dr.-Ing. Klaus Dilger	Michael Giese	m.giese@tu-bs.de	winter	Master	Mechanical engineering, Industrial engineering	MB-IFP-06	
Process Technology of Nanomaterials	Prozesstechnik der Nanomaterialien	Partikeltechnik	Prof. Dr. G. Garnwetter	Dr. Reza EbrahimiFarid	r.ebrahimi@tu-braunschweig.de	winter	Master	Biochemical engineering, Mechanical Engineering, Industrial Engineering, Aerospace Engineering, Pharmaceutical engineering, Biotechnology	MB-IPAT-09	
Spaceflight Technology - Space Debris	Raumfahrtrückstände	Raumfahrtssysteme / Space Systems	Prof. Heiner Klinkrad	Dr. Carsten Wiedemann	c.wiedemann@tu-braunschweig.de	winter	Master	Biological and Chemical Engineering, Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Automotive Engineering	MB-ILR-06	
Sustainable Cyber Physical Production Systems (optional lab exercise)	Nachhaltige cyber-physische Produktionssysteme (optionales Labor)	Werkzeugmaschinen und Fertigungstechnik	Dr.-Ing. S. Thiede, Prof. Dr.-Ing. C. Herrmann	Bastian Thiede, Sebastian Gelrich	b.thiede@tu-braunschweig.de , s.gelrich@tu-braunschweig.de	winter	Master	Mechanical Engineering, Industrial Engineering, Biomedical Engineering	MB-IFW-58	
Vibration Measurement and Analysis without lab	Schwingungsmesstechnik	Adaptions und Funktionsintegration	Prof. Dr.-Ing. Michael Sinapius, Dr.-Naser A. Natsheh	Dr.Naser A Natsheh	naser.natsheh@tu-braunschweig.de	winter	Master	Mechatronics	MB-DuS-29	

Lectures held in German with additional support in English

Title in English	Title in German	Institute of	University Lecturer / Professor	Contact Person	E-Mail of Contact Person	Semester	Level	Course of Studies / specialisation	Module ID	Coaching for international students	Support options			
											Slides in English	Script in English	Possibility for quizzes in English	Other
Advanced thermal separation processes	Thermische Verfahrenstechnik für Fortgeschrittene	Chem. & Therm. Verfahrenstechnik	Prof. Dr.-Ing. S. Scholl	Prof. Dr.-Ing. S. Scholl	s.scholl@tu-bs.de	summer	Master	Biotechnology, Pharmaceutical Engineering	MB-ICTV-19	Yes	No	No	Yes	English repetition or multiple choice quizzes of previous lecture at start of following lecture
Aircraft Engine – Control and Operation	Regelung und Betriebsverhalten von Flugtriebwerken	Flugtrieb- und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Constance Heykena	c.heykena@fas.tu-bs.de	summer	Master	Mechanical Engineering, Aerospace Engineering	MB-PFI-12	Yes	No	No	No	
Aircraft Engine Maintenance	Triebwerks-Maintenance	Flugtrieb- und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Fabian Schur	f.schur@fas.tu-bs.de	summer	Master	Mechanical Engineering, Aerospace Engineering	MB-PFI-13	Yes	No	No	No	
Aircraft Engine Thermodynamics	Kreisprozesse der Flugtriebwerke	Flugtrieb- und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Melanie Achmus	m.achmus@fas.tu-bs.de	summer	Bachelor	Mechanical Engineering	MB-PFI-05	Yes	No	No	No	
Airfoil Aerodynamics- Theory and Experiment	Profilärodynamik- Theorie und Experiment	Strömungsmechanik	Prof. Dr. R. Radespiel	Prof. Dr. R. Radespiel	r.radespiel@tu-bs.de	summer	Bachelor	Mechanical Engineering	MB-ISM-21	Yes				
Chemical Process Engineering	Chemische Verfahrenstechnik	Chem. & Therm. Verfahrenstechnik	Prof. Dr.-Ing. S. Scholl	Prof. Dr.-Ing. S. Scholl	s.scholl@tu-bs.de	summer	Bachelor	Biochemical, Chemical and Pharmaceutical Engineering, Mechanical Engineering, Industrial Engineering	MB-ICTV-32 // -37		No	No	No	English repetition or multiple choice quizzes of previous lecture at start of following lecture

Continuum mechanics I - Matrix and tensor calculus	Kontinuumsmechanik I - Matrizen- und Tensorrechnung	Festkörpermechanik	Prof. Dr.-Ing. Markus Böhl	Prof. Dr.-Ing. Markus Böhl	m.boehl@tu-bs.de	summer	Bachelor	Mechanical Engineering, Mathematics, Industrial Engineering	MB-IFM-49	Yes	Yes	Yes	Yes	
Continuum mechanics and material theory	Kontinuumsmechanik und Materialtheorie	Festkörpermechanik	Prof. Dr.-Ing. Markus Böhl	Prof. Dr.-Ing. Markus Böhl	m.boehl@tu-bs.de	summer	Master	Mechanical Engineering, Industrial Engineering, Mobility and Traffic, Automobile Technology, Biochemical Engineering, Aerospace Engineering, Computational Science in Engineering	MB-IFM-27	Yes	No	No	Yes	
Control Theory	Regelungstechnik	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Daniel Giesecke	d.giesecke@tu-bs.de	summer	Bachelor	Mechanical Engineering	MB-IFM-09	Yes	No	No	No	oral exam possible
Energy Technology Basics (optional lab exercise)	Grundlagen der Energietechnik (optionales Labor)	Energie und Systemverfahrenstechnik	Prof. Dr.-Ing. U. Krewer	Prof. Dr.-Ing. U. Krewer	u.krewer@tu-brunschweig.de	summer	Bachelor	Mechanical Engineering, Industrial Engineering	MB-WuB-069	Yes, directly after course hours	No	No	Yes	
Engine Components - Design, Operation, Maintenance	Baulemente von Strahltriebwerken - Funktion, Betrieb, Wartung	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Andreas Kellermann	a.kellermann@tu-bs.de	summer	Bachelor	Mechanical Engineering	MB-IFM-05	Yes	No	No	No	Klausur / mdt. Prüfung auch auf Englisch möglich
Fundamentals of Air-Traffic Control	Grundlagen der Flugsicherung	Flugführung	Prof. Dr. Dirk Klüger	Renato Lumia	r.lumia@tu-brunschweig.de	summer	Master	LRT, KFZ, MB, MoVe, Wing, Bio-Chemig, Tech.Gr. M.	MB-IFM-07	No	Yes	No	Yes	
Fundamentals of environmental engineering	Grundlagen der Umweltschutztechnik	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs; Dr.-Ing. Kampen	Alexander Skorpel	a.skorpel@tu-bs.de	summer	Bachelor	Mechanical Engineering	MB-PII-02	Yes	No	No	No	English repetition or multiple choice quizzes at start of following lecture
Hybrid separation processes	Hybride Trennverfahren	Chem. & Therm. Verfahrenstechnik	Prof. Dr.-Ing. S. Schöll	Prof. Dr.-Ing. S. Schöll	s.schoell@tu-bs.de	summer	Master	Biochemical and Chemical Engineering, Mechanical Engineering, Industrial Engineering	MB-ICTV-04 // -25		No	No	Yes	
Materials Technology II	Werkstofftechnologie II	Füge- und Schweißtechnik	Prof. Dr.-Ing. Klaus Dilger	Lukas Kaempf	l.kaempf@tu-bs.de	summer	Master	Mechanical engineering, Industrial engineering	MB-IS-04	Yes	No	No	No	
Measurement Methods in Fluid Mechanics	Messmethoden in der Strömungsmechanik	Strömungsmechanik	Dr. Stephan Bansmer	Dr. Stephan Bansmer	s.bansmer@tu-bs.de	summer	Master	Aerospace Engineering, Automobile Engineering, Mechanical Engineering	MB-ISM-02	Yes				
Nonlinear Finite Element Method	Nichtlineare Finite-Elemente-Methoden	Festkörpermechanik	Prof. Dr.-Ing. Markus Böhl	Prof. Dr.-Ing. Markus Böhl	m.boehl@tu-bs.de	summer	Master	Mechanical Engineering, Industrial Engineering, Mobility and Traffic, Automobile Technology, Biochemical Engineering, Aerospace Engineering, Computational Science in Engineering	MB-IFM-05	Yes	Yes	Yes	Yes	
Numerical Analysis in Aerodynamics	Analysis der numerischen Methoden in der Aerodynamik	Aerodynamik und Strömungstechnik	Prof. Dr. C. Rossow	Prof. Dr. C. Rossow	c.rossow@tu-bs.de	summer	Master	Aerospace Engineering	MB-ISM-23	Yes, directly after course hours				Exam in English
Principles of Microtechnology	Grundlagen der Mikrosystemtechnik	Microtechnik	Prof. Dr. A. Dietzel; Dr.-Ing. M. Leester-Schädel	Sven Mennen	s.mennen@tu-brunschweig.de	summer	Bachelor	Mechanical Engineering, Biological Chemical and Pharmaceutical Engineering, Industrial Engineering	MB-MT-025	Yes	Yes	No	No	Klausur eng./dt. Fragen und Antworten
Safety and certification in aviation	Sicherheit und Zertifizierung im Luftverkehr	Flugführung	Dr. Norbert Lohl	Renato Lumia	r.lumia@tu-brunschweig.de	summer	Master	LRT, KFZ, MB, MoVe, Wing, Bio-Chemig, ES	MB-IFM-31	No	Yes	No	Yes	
Satellite technology	Satellitenrecht	Raumfahrtssysteme / Space Systems	Prof. Dr. E. Stoll	Benjamin Grzesik	b.grzesik@tu-brunschweig.de	summer	Master	Biological and Chemical Engineering, Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Automotive Engineering	MB-IR-62	Yes	Yes	Yes	Yes	
Satellite operations	Satellitenbetrieb	Raumfahrtssysteme / Space Systems	Prof. Dr. E. Stoll	Benjamin Grzesik	b.grzesik@tu-brunschweig.de	summer	Master	Biological and Chemical Engineering, Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Automotive Engineering	MB-IR-66	Yes	Yes	Yes	Yes	
Technical Combustion and Fuel Cells (optional lab exercise)	Technische Verbrennung und Brennstoffzellen (optionales Labor)	Energie und Systemverfahrenstechnik	Prof. Dr.-Ing. U. Krewer	Prof. Dr.-Ing. U. Krewer	u.krewer@tu-brunschweig.de	summer	Master	Mechanical Engineering, Automotive Engineering, Aerospace Engineering	MB-WuB-089	Yes, directly after course hours	No	No	Yes	oral exam possible
Thermal Turbomachinery	Thermische Strömungsmaschinen	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. H. Saathoff	Helko Schwarz	h.schwarz@tu-bs.de	summer	Master	Mechanical Engineering, Aerospace Engineering, Process Engineering	MB-PII-12	Yes	No	No	No	
Welding Technology II	Schweißtechnik II	Füge- und Schweißtechnik	Prof. Dr.-Ing. Klaus Dilger	Sven Grünke	s.grunke@tu-bs.de	summer	Master	Mechanical engineering, Industrial engineering	MB-IS-20	Yes	No	No	No	
Adhesive Bonding	Fügetechniken für den Leichtbau	Füge- und Schweißtechnik	Prof. Dr.-Ing. Klaus Dilger	Hilrich Gierke	h.gierke@tu-brunschweig.de	winter	Master	Mechanical engineering, Industrial engineering	MB-IS-28	Yes	No	No	No	
Aerodynamics of Engine Components	Aerodynamik der Triebwerkskomponenten	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Thorben Auferheide	t.auferheide@tu-bs.de	winter	Master	Mechanical Engineering, Aerospace Engineering	MB-ISM-34	Yes	No	No	No	Exam in English
Aeroengine Noise	Triebwerkslärm	Strömungsmechanik	Prof. Dr. R. Akkermans	Prof. Dr. R. Akkermans	r.akkermans@tu-bs.de	winter	Master	Aerospace Engineering	MB-ISM-34	Yes	Yes			
Aerospace Medicine - Aviation physiology	Luft- und Raumfahrtmedizin	Flugführung	Dr. med. Claudia Stern	Renato Lumia	r.lumia@tu-brunschweig.de	winter	Master	LRT, KFZ, MB, MoVe, Wing, Bio-Chemig	MB-IFM-32	No	Partially	No	Yes	Klausur / mdt. Prüfung auch auf Englisch möglich
Air Traffic Management (ATM) - Advanced Applications	Funktion des Flugverkehrsmanagements	Flugführung	Prof. Dr. Dirk Klüger	Renato Lumia	r.lumia@tu-brunschweig.de	winter	Master	LRT, KFZ, MB, MoVe, Wing, Bio-Chemig	MB-IFM-08	No	Yes	No	Yes	Prüfung auch auf Englisch möglich
Aircraft Engine Design	Entwurf von Flugtriebwerken	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Phillip Regentin	p.regentin@tu-bs.de	winter	Master	Mechanical Engineering, Aerospace Engineering	MB-PII-11	Yes	No	No	No	Mooc in English
Airline Operation	Flugbetrieb	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Capla Atalay	c.atalay@tu-bs.de	winter	Master	Mechanical Engineering, Aerospace Engineering	MB-PII-14	Yes	No	No	No	
Avionic systems	Avioniksysteme	Flugführung	Dr. Harro von Viebahn	Stephan Kocks	s.kocks@tu-brunschweig.de	winter	Master	LRT, KFZ, MB, MoVe, Wing, Bio-Chemig, ES	MB-IFM-12	No	Yes	No	Yes	Klausur eng./dt. Fragen und Antworten
Calculation methods in aerodynamics	Berechnungsmethoden der Aerodynamik	Strömungsmechanik	Prof. Dr. R. Radespiel	Prof. Dr. R. Radespiel	r.radespiel@tu-bs.de	winter	Master	Aerospace Engineering	MB-ISM-20	Yes				
Configuration Aerodynamics	Konfigurationsaerodynamik	Aerodynamik und Strömungstechnik	Prof. Dr. R. Rudnik	Prof. Dr. R. Rudnik	r.rudnik@tu-bs.de	winter	Bachelor	Aerospace Engineering	MB-ISM-13	Yes	Yes	Yes	Yes	Exam in English
Continuum mechanics I - Basics	Kontinuumsmechanik I - Grundlagen	Festkörpermechanik	Prof. Dr.-Ing. Markus Böhl	Prof. Dr.-Ing. Markus Böhl	m.boehl@tu-bs.de	winter	Bachelor	Mechanical Engineering, Mathematics, Industrial Engineering	MB-IFM-51	Yes				
Fundamentals of Numerical Methods in Aerodynamics	Einführung in die numerischen Methoden in der Aerodynamik	Aerodynamik und Strömungstechnik	Prof. Dr. C. Rossow	Prof. Dr. C. Rossow	c.rossow@tu-bs.de	winter	Master	Aerospace Engineering	MB-ISM-22	Yes, directly after course hours				Exam in English
Fundamentals of thermal separation processes	Grundlagen der thermischen Verfahrenstechnik	Chem. & Therm. Verfahrenstechnik	Prof. Dr.-Ing. S. Schöll	Prof. Dr.-Ing. S. Schöll	s.schoell@tu-bs.de	winter	Master	Biotechnology, Pharmaceutical Engineering	MB-ICTV-36		No	No	No	English repetition or multiple choice quizzes at start of following lecture
Fundamentals of Turbomachinery	Grundlagen der Strömungsmaschinen	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Kamsan Sivamortthy	k.sivamortthy@tu-bs.de	winter	Bachelor	Mechanical Engineering	MB-PII-04	Yes	No	No	No	
Grinding and Dispersion	Zerkleinern und Dispergieren	Partikeltechnik	Prof. Dr.-Ing. A. Kwade	Christoph Thon	c.thon@tu-bs.de	winter	Master	Biochemical engineering, Mechanical Engineering, Industrial Engineering, Pharmaceutical engineering	MB-IPAT-21	Yes	Yes	Yes	Yes	
Hydraulic Turbomachinery	Hydraulische Strömungsmaschinen	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Tobias Spahler	t.spahler@tu-bs.de	winter	Master	Mechanical Engineering, Aerospace Engineering, Process Engineering	MB-PII-04	Yes	No	No	No	
Measurement in Turbomachinery	Messische Methoden an Strömungsmaschinen	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Detlev Wulff	d.wulff@tu-bs.de	winter	Master	Mechanical Engineering, Aerospace Engineering, Process Engineering	MB-PII-03	Yes	No	No	No	
Mechanical Behaviour of Engineering Materials	Mechanisches Verhalten der Werkstoffe	Werkstoffe	Prof. Dr. Joachim Köster	changing contact person, announced in lecture		winter	Bachelor	Mechanical Engineering	MB-IFM-31	No	No	Yes	(Complete textbook based on the lecture available)	
Orbit and attitude control of spacecraft	Bahn- und Lageregelung von Raumfahrzeugen	Raumfahrtssysteme / Space Systems	Prof. Dr. E. Stoll	Mohamed Khalil Ben Larbi	m.ben-larbi@tu-brunschweig.de	winter	Master	Biological and Chemical Engineering, Mechanical Engineering, Aerospace Engineering, Industrial Engineering, Automotive Engineering	MB-IR-64	Yes	Yes	Yes	Yes	
Unit operations in fluid process engineering	Grundoperationen der Fluidverfahrenstechnik	Chem. & Therm. Verfahrenstechnik	Prof. Dr.-Ing. S. Schöll	Prof. Dr.-Ing. S. Schöll	s.schoell@tu-bs.de	winter	Bachelor	Biochemical, Chemical and Pharmaceutical Engineering, Mechanical Engineering, Industrial Engineering	MB-ICTV-34 // -35		No	No	No	English repetition or multiple choice quizzes at start of following lecture
Wind turbine systems	Systeme der Windenergieanlagen	Flugantriebe und Strömungsmaschinen	Prof. Dr.-Ing. J. Friedrichs	Detlev Wulff	d.wulff@tu-bs.de	winter	Master	Mechanical Engineering, Aerospace Engineering, Process Engineering, Industrial Engineering	MB-PII-29	Yes	No	No	No	