

**Courses in English for exchange students who are enrolled in a programme from Department Chemical and Biological Engineering**

<b>Course</b>	<b>Term</b>	<b>ECTS</b>	<b>SWS</b>	<b>Lecturer</b>	<b>Examination number</b>
Adsorption: Fundamentals and Applications	winter	5	2	Prof. Thommes u.a.	<b>50351</b>
Applied Thermofluid Dynamics (power train systems) for CBI,LSE, CEN and ET	winter	5	2+1	Prof. Wensing	<b>52901</b>
Applied Thermofluid Dynamics	summer	5	2+1	Dr.-Ing. Vojislav Jovicic u.a.	<b>31101</b>
Application of Cell Technology	winter	5	2	Dr.-Ing. Detsch, Prof. Boccaccini	<b>44751</b>
Basics in Advanced Processes 1	winter	2,5	2	Marco Haumann	<b>17511</b>
Basics in Biomaterials and Bioprocessing 1	winter	2,5	2	Prof. Boccaccini u.a.	<b>17561</b>
Basics in Computational Materials Science and Process Simulation 1	winter	2,5	2	Prof. Engel, Prof. Bück	<b>17611</b>
Basics in Computational Materials Science and Process Simulation 2	summer	2,5	2	Dr.-Ing. Münsch u.a.	<b>17612</b>
Basics in Nanomaterials and Nanotechnology 1 - Mechanical and Optical Properties	winter	2,5	2	Prof. Felfer, Prof. Vogel	<b>17661</b>
Biomaterial Interfaces	summer	1,5	2	Prof. Boccaccini, Prof. Virtanen	<b>17562</b>
Biomaterials for Tissue Engineering	summer	3	2	Prof. Boccaccini	<b>18062</b>

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Biomimetic Synthesis of Materials	winter	1,5	2	Prof. Wolf	<b>18071</b>
Biocatalytic Energy Systems	summer	5	2+3	Prof. Herkendell	<b>77551</b>
Catalysis	winter	3,5	2	Prof. Franken	<b>18022</b>
Chemical Reaction Engineering	winter	5	5	PD Dr. Haumann, Dr. Wolf	<b>17021</b>
Chemical Thermodynamics	winter	5	2	Dr. Mokrushina, Prof. Dr. Thommes	<b>17161</b>
Clean combustion technologies	summer	5 or 7,5 (with Lab)	2+3 or 2+3+3	Prof. Will, F. Bauer, M.Sc	<b>51111</b> <b>(+51102)</b>
Drying Technology (Trocknungstechnik)	winter	5 or 7,5 (with Lab)	2+2 or 2+2+3	Prof. Bück	<b>53351</b> <b>(+53361)</b>
Economics of climate change	winter	5	2+2	Prof. Grimm, Hr. Egerer	<b>32861</b>
Efficient heat transfer	summer	5	5	Dr.-Ing. Rausch, Prof. Fröba	<b>29111</b>
Electronic Materials (lecture and workshop)	winter	5	3	Prof. Brabec	<b>17362</b>
Energy Process Technology	summer	5	2+1	Prof. Hornung	<b>42701</b>

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Environmental Thermodynamics (Umweltthermodynamik)	winter	5	3	Dr. Mokrushina	<b>54651</b>
Electrochemistry	summer	5	2+3	Prof. Mayrhofer, Hr. Dworschak, Hr. Vasilyev	<b>27741</b>
Experimental Fluid Mechanics	summer	5	3	Prof. Wierschem	<b>29331</b>
Fluid Mechanics	winter	5	4	Dr.-Ing. Münsch	<b>17111</b>
Foundations of chemical reaction engineering	winter	5	2+2	Prof. Wasserscheid, Dr. Schulz	<b>27711</b>
Fuel cells and electrolyzers	winter	5	5	Prof. Thiele	<b>29181</b>
Fundamentals of electrical engineering	summer	5	2+2	Prof. Müller	<b>27761</b>
Immobilisation of Cells and Characterisation of Membranes	summer	3	2	Prof. Freitag (Uni BT)	<b>18061</b>
Interface Engineering and Particle Technology	winter/ summer	5	4	Prof. Klupp Taylor	<b>17061, 27731</b>
Life cycle assessment	summer	5	5	Prof. Hartmann, Dr.-Ing. Inayat	<b>29121</b>
Materials and Structure	winter	5	2	Dr. Johannes Will, Prof. Spiecker	<b>17311</b>

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Materials and structure	summer	5	2	Prof. Spiecker, Dr. Will	<b>27751</b>
Mathematics for Engineers I	winter	7,5	4+2	Prof. Merz	<b>27651</b>
Mathematics for Engineers II	summer	7,5	4+2	Prof. Merz	<b>27671</b>
Mathematics for Engineers III	winter	7,5	4+2		<b>27691</b>
Mechanical Properties and Structure of Advanced Materials	winter	2,5	2	Prof. Göken, Dr.-Ing. Neumeier	<b>18171</b>
Medical Biotechnology (Vertiefung Medizinische Biotechnologie)	summer	5 or 7,5 (with Lab)	3 or 4+3	Dr. Vielreicher u.a.	<b>43811</b>
Microeconomics	winter	5	2+2	Prof. Grimm u.a.	<b>70071</b>
Microfluidics and microfluidic devices	winter	5	2+3	Prof. Thiele	<b>29341</b>
Measurement systems	winter	5	2+1		<b>27781</b>
Nanopolymers (Polymer Nanocomposites)	winter	2,5	1	Prof. Altstädt	<b>18173</b>
Nanoscale Surface Characterisation and Structures	winter	2,5	2	Dr. Höhlinger	<b>17662</b>

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Nanotechnology of Disperse Systems	summer	5	3	Prof. Klupp Taylor, Dr. Distaso	<b>18161</b>
Numerical Methods in Materials Science - Atomistic Modelling	summer	3	4	Prof. Bitzek, Dr.-Ing. Duancheng Ma	<b>18111</b>
Numerical Methods in Particle Technology	summer	4,5	2	Prof. Peukert	<b>18112</b>
Numerical fluid mechanics I (Numerische Methoden der Thermofluiddynamik I)	winter	5 or 7,5 (with Lab)	2 or 3+3 (with Lab)	Dr.-Ing. Münsch	<b>54871</b>
Numerical Fluid Mechanics II (Numerische Methoden der Thermofluiddynamik II)	summer	5 or 7,5 (with Lab)	2 or 3+1 (with Lab)	Dr.-Ing. Münsch	<b>54861</b>
Optical Diagnostics in Energy and Process Engineering	winter	5 or 7,5 (with Lab)	2+2 or 2+2+3	Dr.-Ing. Huber, Prof. Will	<b>29351 (+29501)</b>
Optical Technologies in Life Science	winter	5	4	Dr. Schürmann	<b>57301</b>
Optimization for Engineers	summer	5	3	Dr. Hild	<b>40501</b>
Phase Equilibria (Phasengleichgewichte)	summer	5	3	Dr. Mokrushina	<b>54701</b>
Physics I	winter	5	3+1	Prof. van Eldik	<b>27661</b>
Physics II	summer	5	3+1	Prof. van Eldik	<b>27681</b>

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Phosphors for Light Conversion in Photovoltaic Devices and LEDs	winter (+ lab in	5 or 7,5 (with Lab)	2+3 or 2+3+3	Prof. Batentschuk	<b>29021 (+29022)</b>
Physics of Turbulence and Turbulence Modelling I	summer	5	3	Prof. Jovanovic	<b>52101</b>
Physics of Turbulence and Turbulence Modelling II	winter	5	3	Prof. Jovanovic	<b>52201</b>
Polymer Materials	winter	5	2	Prof. Schubert, Prof. Vogel	<b>17261</b>
Polymer science and processing	winter	5	2+2	Prof. Vogel	<b>53751</b>
Polymerwerkstoffe in der Medizin/Polymeric Materials in Medicine	winter	3	2	Dr.-Ing. Kaschta	<b>18073</b>
Porous Materials: Preparation principles, production processes and spectroscopic characterization	winter	5	2+3	Dr. Inayat, Prof. Hartmann	<b>18172</b>
Process Control and Plant Safety	summer	5 or 7,5 (with Lab)	2+3 or 2+3+3	Prof. Bück	<b>29011 (+29012)</b>
Process simulation	summer	5 or 7,5 (with Lab)	2+1 or 2+1+3	Dr. Preuster	<b>29001 (+29002)</b>
Process systems dynamics 2	summer	5	2+3	Prof. Bück	<b>849343</b>
Process Technologies	summer	5	3	Prof. Hartmann, Prof. Kaspereit	<b>18021</b>

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Pumps and turbines	winter	5	2+3	Prof. Becker	<b>29201</b>
Renewable energies	winter	5	2+2	Prof. Herkendell	<b>27721</b>
Renewable thermal power plants	winter	5	2+3	Prof. Wensing	<b>29211</b>
Self-organization processes	summer	5	2+3	Prof. Engel u.a.	<b>29361</b>
Scientific computing in engineering	winter	5	2+2	Prof. Harting	<b>29321</b>
Thermodynamics heat and mass transfer	winter	7,5	4+2		<b>27771</b>
Thermodynamics and Mechanics of Materials	winter	5	2	Prof. Bitzek, Prof. Virtanen	<b>17221</b>
Thermophysical Properties of Working Materials in Process and Energy Engineering	summer	5 or 7,5 (with Lab)	4 or 4+3+1	Dr.-Ing. Koller u.a.	<b>49701 (+49702)</b>
Thin-film processing	winter	7 or 7,5 (with Lab)	2+3 or 2+3+3	Prof. Bück u.a.	<b>29051 (+29052)</b>
Thin films: processing, characterization and functionalities	summer	1	1	Dr. Egelhaaf	<b>18013</b>
Active project	winter	5	1+1+3 (Seminar)		<b>27931</b>

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Power Electronics for Decentral Energy Systems	summer	5 or 7,5 (with Lab)	2+2 or 2+2+2	Prof. März	<b>29041</b> <b>(+29042)</b>
MA Quantitative Methods in Energy Market Modelling	summer	5	2+3	Prof. Zöttl, Prof. Grimm	<b>25921</b>
Photovoltaic systems - Fundamentals	winter	5 or 7,5 (with Lab)	2+3 (+3)	Prof. Brabec	<b>29061</b> <b>(+29062)</b>
Phosphors for Light Conversion in Photovoltaic Devices and LEDs	winter (+ lab in	5 or 7,5 (with Lab)	2+3 (+3)	Prof. Batentschuk	<b>29021</b> <b>(+29022)</b>