Summer Semester 2022

English-taught courses

at the

Otto von Guericke University Magdeburg, Germany

Contents:

General Information

Explanations: Level: B = Bachelor; M = Master.

Hours: 1 SWS = 45 minutes;

L = Lecture, T = Tutorial, U=Exercise, S = Seminar, P=Training

BS=Compact Course, HS=Advanced Seminar, PS=Undergraduate Seminar,

ECTS:

ECTS = all-European credit transfer system (not relevant for non-European students).

If there is more than one number for ECTS, you can choose between different options to conclude the seminar (for example exam or oral presentation).

Some course descriptions include no credit (ECTS) information. Please consult the lecturer for this information. The lecturers' contacts can be found in LSF, under the relevant course details: *https://lsf.ovgu.de/qislsf/rds?state=user&type=0*

- This is a list of the courses offered in the summer semester 2022. It's an orientation for the courses offered in summer semester 2023, because most courses are offered annually, but there is no guarantee that the courses will be offered again.

- No responsibility is taken for the correctness of the course information. Courses are subject to changes and other courses might be added.

- The courses you wish to take at OVGU should correspond to your study program at your home institution. All courses you wish to take at OVGU must be agreed upon in your Learning Agreement with your home coordinator and with the OVGU departmental coordinator.

- Access to specific courses hereunder cannot be guaranteed in advance. We reserve the right to check the applicant's academic qualification for any such course.

1 Faculty of Humanities, Social Sciences and Education (FHW)

Course Name	Level	Hours/ week	ECTS
19th-Century Gothic Literature	B	2S	4/6
Colonial Urban Heritage	B/M	2S	4/5/6
Feminist Theory with an EU lens	M	2S	4/5/6
Historical roots of English	B	2PS	4/6
History and Theory of Literature and Culture I: 16th to 18th Century	B/M	2L	4/6
Im/politeness in cultural context	M	2S	4/5/6
Introduction to Value Research	M	2S	4/5/6
International Vocational Education I	M	2S	4
International Vocational Education II	M	2S	6
James Joyce and Modernism	B/M	2S	4/6
Kolloquium and Research Seminar	B/M	2S	3/5
Language in contemporary public space	B	2PS	4/6
Learning and Teaching Technologies in Practice	M	2S	4
MASTER PROJECT - European Studies	M	2S	10
Mediation	M	BS	10
Methods in Peace and Conflict & European Studies: An Overview	M	2S	10
Methods of Peace and Conflict Studies	M	2S	10
Migration in British Film	B/M	2S	4/5/6
Names as potential sources of conflict	M	2S	4/5/6
Pflichtvorlesung Internationale Beziehungen: Einführung in die Außen- und Sicherheitspolitik	B/M	2L	4/5/6
Philosophy of Science	B/M	2L	2/4
Popculture and World Politics	M	2S	4/5/6
Qualitative Research Methods	M	2S	6

Quality of Life in Europe: Are more equal societies better?	M	2S	5/10
The EU and Gender Equality	B	2S	5/6
The EU Governance System: Polity, Politics and Policies	B	2L	4/5/6
The EU Policy Cycle	M	2S	4/5/6/10
The Russian-Ukrainian conflict: root causes, dynamics, and approaches to conflict management	M	2S	4/5
"Third Reich" Iconography in Popular Film	B	2S	4/5/6
Transitional Justice	M	2S	4/5/6/10
Truth Commissions in Theory and Practice: The Colombian Case	M	BS	4/6
Visuality and Warfare	M	2S	4/5/6/10
Vocational Education for Sustainable Development	M	2S	4

2   Faculty of Economics and Management (FWW)

- Permanent course offer marked with *****, these courses will be offered every semester

Course Name	Code	Level	Hours/week	ECTS
Behavioral Finance*	20043	B/M	2L+1U	5
Business Decision Analysis*	41057	B	2L+1U	5
Company Evaluation*	22373	B/M	2L+2U	5
Economic Policy*	41071	B/M	2L+1U	5

Financial Engineering*	50760	B/M	2L+2U	5
Financial Institutions*	50009	B/M	2L+2U	5
Game Theory*	41091	B	2L+1U	5
Introduction to Econometrics*	41092	B	2L+2U	5
Introduction to International Economics*	41038	B/M	2L+2U	5
Introduction to Probability and Statistics*	41083	B	2L+2U	5
Management Accounting	41066	B	2L+2U	5
Marketing Methods & Analysis*	50566	B/M	2L+2U	5
Mathematical Methods II	41010	B	2L+2U	5
Principles of International Management*	41040	B	2L+1U	5

3 Faculty of Process and Systems Engineering (FVST)

Course Name	Level	Hours/ week	ECTS
Advanced Fluid Dynamics	M	2L+2U	5
Advanced Heat and Mass Transfer	M	2L+2U	5
Analysis and Design of Experiments	M	2L+1U	4
Air Pollution Control	M	3L+1U	4
Bioinorganic Chemistry	M	2L	
Cell Culture Engineering	M	2L+1U+1P	5
Computational Fluid Dynamics	M	1L+2U	4
Chemical Reaction Engineering	B/M	2L+2U	5
Chemistry	M	3L	5
Core Facility Tissue Engineering	M	2 S	
Electrochemical Process Engineering	M	2L+1U	4
Fire Protection in Industrial Facilities		2L+1P+1U	
Fundamentals of Multiphase Flows	M	2L	
Heterocyclen als Basis von Wirkstoffen: Synthesestrategien und Synthesen	M	2,5L	3
Introduction to the pre- market phase in the approval process of medical devices	M	2L+1U	5
Ignition processes and explosion protected devices	M	2L	
Legal Issues in Plant Operation and Process Safety	M	2L	3
Mechanical Process Engineering	M	2L+2U	5
Methods of Risk Analysis	M	2L + 1U	4
Modern organic synthesis	M	2L	3
Nanoparticle Technology	B/M	2L+2U	4

Product quality in the chemical industry	M	2L+1U	4
Relevant soft skills for academics	B/M	BS	No ECTS, certificate
Sustainability Assessment for Biofuels	M	2L+1U	4
Tissue Engineering Lab	M	S	5
Technology and Innovation Management in the Biotech Industry	M	BS	
Thermal power plants	M	2L+1U	4
Transport phenomena in granular, particulate and porous media	M	2L+1U	5

4   Faculty of Computer Sciences (FIN)

Course Name	Level	Hours/week	ECTS
Advanced Database Models	M	2L + 2U	6
Advanced Topics in Databases	M	2L + 2U	6
Advanced Topics in Machine Learning	M	2L + 2U	6
Applications of 3D Deep Learning	M	2S	3
Data and Knowledge Engineering	M	2S	6
Data Mining I - Introduction to Data Mining	B/M	2L +2U	5/6
Deep learning for Computer Vision	M	4L	6
Digital Engineering Projekt NetSys	M	2P	12
Hot Topics in Communication and Networked Systems	B/M	2S	3
Introduction to Robotics	B	2L+2Ü	5
Introduction to Software-Engineering for Engineers	M	2L+2S+2U	5/6
Introduction to Distributed Sensor Data Fusion	M	2L+2U	6
Knowledge Engineering and Digital humanities	M	2L+2U	6
Management of Global Large IT-Systems in International Companies	M	2L+2U	6
Medical Visualization	M	2L+2U	6
Mesh Processing	B	2L+2U	5
Neural Symbolic Integration	M	2L+2U	6
Parallel Storage System	M	2L+2U	6
Principles and Practices of Scientific Work	M	2L + 2U	3
Recommenders	B	2L+2U	
Service Engineering	B/M	2L	5
Simulation Project	B/M	4L	
Software Defined Networking	B/M	2L+2U	
Software Engineering	B	2L+2U	5

Virtual and Argumented Reality	B	2L+2P	5/6
Visual Analytics	M	2L + 2U	6

5   Faculty of Electrical Engineering and Information Technology (FEIT)

Course Name	Level	Hours/ week	ECTS
Advances in Radiation and medical Physics	M	2P	
Anatomy for Engineering students	B/M	BS	5
Basics of Medical Image Science	M	L/U	4
Comp. Neuroscience II / Engineering Neuroscience / Integrative Neuroscience II	B/M	2L+1U	
Digital Communication Systems	M	2L+1U	5
Digital Information Processing Lab	M	2P	5
Digital Protection of Power Networks	M	2L/U	
Machine Learning, Dynamical Systems and Control	M	L/U 3	
Medical Image – Computer Tomography – Theory and Application	M	2L+1U	5/6
Medical Measurement Technology	M	2L + 2S	5
Nonlinear Control	B/M	L/U 3	5
Nonlinear Systems	M	2L+U2	
Nuclear medicine	M	2L+1U	
Pharmacokinetic and pharmacodynamics modeling	M	2L+U	
Power Systems Control and Optimization	M	3L/U	
Process Control	M	2L + 1U	5
Renewable Energy Sources	M	2L + 1U	5
Scientific Working	M	4S	5
Sensor Application	M	2L+1U	
Solution Design in Medical Engineering	M	2S	5
State Estimation	M	2L+2U	

6   Faculty of Natural Sciences (FNW)

Course Name	Level	Hours/ week	ECTS
Advanced Statistics for Neuroscience	M	2L+2U	3+2
Development & Plasticity	M	2L + 2S/U	2+3
Forschungsseminar Nichtlineare Physik	B/M	2S	
Forschungsseminar: Systembiologie	M	3S	
Journal Club	M	2S	
Lab Rotation GENE I	M	4P	6
Learning & memory	B/M	3L	4
Mikrofluidik: Theorie und Anwendungen, Teilmodul/ Microfluidics: theory and applications	B/M	2L+1U	4/5
Molecular & Cellular Neurobiology	M	2S+2P+2L	3
MR System Engineering	M	2L+1U	
Seminar über Nichtlinearität und Unordnung in komplexen Systemen	M	2S	
Soft Matter and Microfluidics Lab Course - Softmatter und Mikrofluidik Praktikum	M	2P	4/5
Systems Neurophysiology	M	3L +2P	2/3/4
Theoretical Neuroscience II	M	3L + 2S/U	2/3 / 4

7   Faculty of Mathematics (FMA)

Course Name	Level	Hours/ week	ECTS
Advanced Topics in Numerical Linear Algebra	**M**	**4 L/U**	**6**
Introduction to Probability and Statistics	**B/M**	**2L + 2U**	**5**
Mathematical Methods II	**B**	**2L + 3U**	**5**
Modelling and Solving Optimization Problems	**M**	**2L+2U**	**5**
Grundlagen der Statistik	**B/M**	**2L**	

8   Faculty of Mechanical Engineering (FMB)

Course Name	Level	Hours/ week	ECTS
CAx Basics	M	2L + 2U	5
Collaborative Management in Supply Networks	M	4 L/U	5
Engineering Design II	M	4L + 4U	5
Factory Automation and Industrial Robots	M	3L/U	5
Fundamentals in factory automation	B	2L/1U	5
Material selection	M	2L+1U	5
Micromanufacturing Technologies	M	2L+1U	5
Mechanics of Materials	M	2L + 2U	5
Modellierung und Simulation in der Logistikplanung (Modeling and Simulation in Logistics Planning)	M	2L+1U	
Renewable Energies- Materials, Components, Functions	M	2L+1U	5
Supply Networks and Logistics Service Provider	M	4L/U	5