

Summer Semester 2021

English-taught courses

at the

Otto von Guericke University Magdeburg, Germany



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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 2021. It's an orientation for the courses offered in summer semester 2022, 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
Conflicts in Energy Transitions	M	2S	4/5/6
Creative Coding and Aesthetic Programming	M	2S	4/6
Creative Coding and Coding Literacy	M	2S	
Critical Security Studies	M	2S	4
Decolonizing Magdeburg	M	2S	4/6/10
Destroying Cities	B	2S	4/6
Feminist Perspectives of War	M	2S	4/5/6
Germany in the EU: The German Council Presidency 2020	B/M	2S	4/5/6
Historical roots of English	B/M	2PS	4/6
History and Theory of Literature and Culture I: 16th to 18th Century	B/M	2L	4/5
Human Rights and Sustainability Governance	B/M	2S	4/5/6
Im/politeness in cultural context	M	2S	4/6
Introduction to Research and Academic Writing	M	2S	6
International Vocational Education I	M	2S	4
International Vocational Education II	M	2S	6
Language in contemporary public space	B/M	2PS	4/6
Learning and Teaching Technologies in Practice	M	2S	4
Mediation	M	BS	10
Medicine in SF Film and Fiction	B/M	2S	4/6
Methods in Peace and Conflict & European Studies: An Overview	M	2S	10
Methods of Peace and Conflict Studies	M	2S	10
Names as potential sources of conflict	M	2S	4/6
Philosophy of Science	B/M	2L	2/4
(Post) Colonial Travel Writing	B/M	2S	4/6
Quality Management	M	BS	6

Quality of Life in Europe: Are more equal societies better?	M	2S	5/10
The EU Governance System: Polity, Politics and Policies	B	2L	4/5/6
The EU Policy Cycle	M	2S	4/5/6/10
Vocational Education for Sustainable Development	M	2S	4
Vocational Education Management	M	BS	4
Yemen, a land in conflict, cross-site teaching project	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
Advanced Game Theory	22706	B/M	2L+2U	5
Applications of Artificial Intelligence	22902	M	PS	15
Approximate Dynamic Programming for Stochastic and Dynamic Decision Making	22928	M	2L	5
Bargaining, Arbitration, Mediation	20812	B/M	2L+2U	5
Behavioral Finance*	20043	M	2L+1U	5
Business Decision Analysis*	41057	B	2L+1U	5
Business Forecasting	22035	B/M	2L+2U	5/6
Business Planning	20624	B/M	2L+1U	5
Case Seminar Strategic Market Analysis	22888	B/M	2S	10
Collective Decision-Making in Organizations	20623	B/M	2L+1U	5
Company Valuation*	22373	B/M	2L+2U	5
Computational Finance and Financial Management	22047	B/M	2S	10
Consumer Behavior	20322	B/M	2L+1U	5
Cross-Cultural Management	22683	M	2L+1U	5
Current Issues in International Management	21920	B	2S	10
Current Trends in Marketing Research	21013	B/M	4S	10
Doing Business in Eastern Europe: The case of Ukraine	21158	B	2L+1U	5
Economic Policy*	41071	B/M	2L+1U	5
Economics of International Business	21682	B/M	2L+1U	5
Economic Shocks and Voting Behaviour: Consequences of Economic Crises, Globalisation and Technological Change	22906	B/M	2S	10
Empirical Corporate Finance	22045	B/M	2S	10
Empirical Research in Public Economics using Stata	22904	B/M	4S	10
Evidence-Based Policy Analysis	50004	B/M	2L+2U	5

Experimental Health Economics	22907	B/M	2S	10
Financial Engineering*	50760	B/M	2L+2U	5
Financial Institutions*	50009	B/M	2L+2U	5
Game Theory*	41091	B	2L+1U	5
Game Theoretic Analysis of the Law	22924	B/M	2L+1U	5
Human Resource Marketing: The Attractiveness of the teaching profession	22903	M	2PS	15
International Business Plan	22203	B	2S	10
Introduction to Econometrics*	41092	B	2L+2U	5
Introduction to International Economics*	41038	B/M	2L+2U	5
Introduction to Metaheuristics for Optimization	22925	B/M	2L+2U	5
Introduction to Probability and Statistics*	41083	B	2L+2U	5
Management Accounting	41066	B	2L+2U	5
Managing in a globalized world	22722	B	2S	10
Marketing Methods & Analysis*	50566	B/M	2L+2U	5
Modelling and Solving Optimization Problems		M	2L+2U	6
Multicultural and Interactive Marketing Communication	22034	B/M	2L+1U	5
Negotiations in International Business	22724	B/M	2S	10
Next Level Leadership	22936	M	4S	10
Online Consumer Research	22229	B/M	4S	10
Population and Family Economics	22036	B/M	2L+1U	5
Principles of International Management*	41040	B	2L+1U	5
Project in FinTech and Blockchain Innovation	22228	M	4PS	15
Public Transport Operations	22893	M	2L+2U	5
Scientific Project in E-Business	22119	B/M	4 PS	15
Scientific project Innovation, Internationalization & Cross-Cultural Management	22037	M	3PS	15
Scientific Project Negotiation Analysis in Entrepreneurship Research	22900	M	4PS	15
Scientific Project Operations Management	22894	M	4PS	15

Scientific Project Time Varying Risk Aversion	22890	M	4PS	15
Scientific Seminar on Dynamic Vehicle Routing	22938	M	4S	10
Taxation and Business Investment	22889	M	4PS	15
What's in a (foreign) language? An evidence-based research project seminar	22887	M	4PS	15

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
Explosion-protected equipment	M	2L	
Fundamentals of Multiphase Flows	M	2L	
Introduction to the pre- market phase in the approval process of medical devices	M	2L+1U	5
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
Simulations of Mechanical Processes	M	2L+1U	5
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 Knowledge Management and Discovery	M	2S	6
Advanced Topics in Machine Learning	M	2L + 2U	6
Applications of 3D Deep Learning	M	2S	3
Computational Geometry	M	42L+2U	6
Computational Intelligence	M	2S	6
Computational Intelligence in Games	B/M	2L + 1U	5/6
Computer-Assisted Surgery	B/M	2L+2U	5/6
Computer-Supported Diagnosis of Cardiovascular Diseases	B	2S	3
Data and Knowledge Engineering	M	2S	6
Data Mining I - Introduction to Data Mining	B/M	2L +2U	5/6
Data Science with R	M	2S	6
Digital Engineering Projekt NetSys	M	2P	12
Digital Engineering Project: Privacy-Preserving Localization and Privileged Sensor Fusion in a Camera Network	M	2S/P	12
Evolutionary Multi-Objective Optimization	M	2L + 2U	6
Flow Visualization	M	2L +2U	6
Hot Topics in Communication and Networked Systems	B/M	2S	3
Introduction to Software-Engineering for Engineers	M	2L+2S+2U	5/6
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 Network Safety	B	2S	5
Parallel Storage System	M	2L+2U	6
Principles and Practices of Scientific Work	M	2L + 2U	3

Service Engineering	B/M	2L	5
Software Engineering	B	2L+2U	5
Visual Analytics	M	2L + 2U	6
VLBA-System Architectures	M	2L	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 Radiation Physics and Image Science	M	L/U	4
Comp. Neuroscience II / Engineering Neuroscience / Integrative Neuroscience II	B/M	2L+1U	
Computed Tomography I – Methods on CT	M	2L+1U	5/6
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 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
Project "Electric Power Networks/ Renewable Energy Sources"	M	P3	5
Project "Electric Power Networks/ Renewable Energy"	M	P3	5
Project "Power Electronics"	M	P3	5
Renewable Energy Sources	M	2L + 1U	5
Scientific Working	M	4S	5
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	L+U	5
Development & Plasticity	M	2L + 2S/U	3
Learning & memory	M	2L	4
Mikrofluidik: Theorie und Anwendungen, Teilmodul (Microfluidics: theory and usage – part module)	B/M	2L+U	4/5
Molecular & Cellular Neurobiology	M	2S+2P+2L	3
MR System Engineering	M	2L+1U	
Statistical Foundations	B/M	2L+2U	3
Systems Neurophysiologie	M	3L	3/4
Systems Neurophysiology (Auditory systemic electrophysiology)	M	2P	2
Systems Neurophysiology (Electrophysiology Methods)	M	2P	2
Theoretical Neuroscience II	M	3L + 2S/U	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
Model Reduction	M	4L+U	6
Scientific Computing	B/M	4L	

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	M	3L/U	5
Fundamentals in factory automation	B	2L/U	5
Industrial Robots	M	3L/U	5
Material selection	M	2L+1U	5
Micromanufacturing Technologies	M	2L+1U	
Mechanics of Materials	M	2L + 2U	5
Renewable Energies- Materials, Components, Functions	M	2L+2U	5