

**Winter semester 2019/20**  
**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/Exercise, S = Seminar,  
P=Training, BS = Compact Course

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

If there are more than one number for ECTS, the lecturer can classify the Credits  
and decide on the workload you'll put in the seminar how many ECTS you'll gain.

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 preliminary list, based on course offerings of the previous year. 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 per Week	ECTS
Advances in Sports Coaching	M	2 L / 2 S	6
Applied Policy Analysis	M	4 S	15
Beginning Theory	B/M	2 S	5
Coaching im Sport	M	2 L	4
Continental Traits in English Culture and Literature	B/M	2 S	4/6
Critical viewing of war films: concept and tools	M	BS	4/6
European Climate Change Policy and Regulation	M	2 S	4/6
European Political and Social Systems	M	2 S	10
The European Union and its Citizens	B/M	2 S	6/10
Filmkurs: Great Films of the 60s	M	2 S	2/4/6
Gilbert Ryle: The Concept of Mind	B	2 S	
Global Sustainability Governance	M	2 S	6/10
History and Theory of Literature and Culture II: 19th Century to the Present	B/M	2 L	2/4
Intercultural Communication	M	2 S	4/6
Interinstitutional negotiations for the adaption of EU legislation in migration and asylum policies (simulation game)	B	BS	4/6
Introduction to Cultural Studies	B	2 L	4/6
Introduction to European Studies	B/M	4 S	10
Introduction to Peace and Conflict Studies	M	2 S	6
Issues of Identity in Harry Potter	B	2 S	4
Language in commercial contexts	B	2 S	4/6
Language Practice for Masters	M	2 T	4
Modern American Drama	B/M	2 S	4/6
Motor Control and Motion Analysis	M	2 S	
Motor Control and Statistics	M	2 S	
Names, paragons and frames in current-day media discourse	M	2 S	4/6/10
Neo-Victorian Cities	B	2 S	4/6
Protracted Social conflicts in the Middle East and North Africa Region: Human Needs Approaches beyond Democracy vs. Autocracy		BS	
Public apologies and denials	M	2 S	4/6
Resource Conflicts	M	2 S	4/6/10
Recognition of States in International Relations	M	2 S	4/6/10
Securing peace after war. International statebuilding and peace intervention in flux	M	2 S	4/6/10
Shakespeare	B	2 S	4/6
Southern Short Story	B	2 S	4/6
The English Language Today	B	2 L	4
The Enlightenment in its European Context	B/M	2 S	4/6
The Human, Non-Human, and Posthuman	B	2 S	4/6
The Language of Advertising	B/M	2 S	4/6

Understanding Conflict - Conflict Theories and Tools for Analysis	M	2 S	6
William Faulkner: Light in August	B/M	2 S	2/4/6

## 2 Faculty of Economics and Management (FWW)

Course Name	Component Code	Level	Hours per Week	ECTS
Accounting Theory	20813	M	2 L/2 T	5
Advanced International Corporate Strategy	22552	M	4 L/T	5
Advanced Marketing Research	21163	M	4 L/T	5
Behavioral Finance	20043	M	3 L/T	5
Business Decision Making	50115	B/M	3 L/T	5
Business Plan	21936	B	4 S	15
Computational Finance and Financial Management	22047	M	2 S	10
Computational Transportation / Integer and Combinatorial Optimization with Applications	22191/50011	B/M	4 L/T	5
Corporate Entrepreneurship	22533	B	4 L/T	5
Digital Transformation	22546	M	2 S	10
Downside Risk	22220	B/M	4 L/T	5
Econometrics	50308	B/M	3 L/T	5
Economic Analysis of Law	21015	B	3 L/T	5
Economics of Growth	20305	M	4 L	10
Entrepreneurship and Management Research	21938	B	2 S	10
Financial Accounting	41087	B	2 L/2 T	5
Financial Management	41065	B/M	2 L/1 T	5
Foundations for Finance	50006	B/M	4 L/T	5
Globalisation: past, present, future	22214	B	4 L	10
International Corporate Strategy	50114	B/M	3 L/T	5
International Taxation	21007	B/M	3 L/T	5
International Tax Planning	21380	B	3 L/T	5
International Tax Planning and Firm Value	22551	M	4 S	15
International Trade	50384	B/M	3 L/T	5
Introduction to Econometrics II	22213	B	4 L/T	5
Introduction to Production Management	22208	B	3 L/T	5
Macroeconomic Analysis	50306	B/M	4 L/T	5
Macroeconomics	41063	B/M	4 L/2 T	10
Managing Sustainable Enterprise	22559	B/M	2 S	10
Marketing Performance Management	41058	B	2 L/2 T	5
Microeconomic Tools for Labor Market Research and Policy Evaluation	21946	M	2 S	10
Microeconomic Analysis	50024	B/M	4 L/T	5
Monetary Economics	20559	B/M	3 L/T	5
Multinational Finance	20959	B	3 L/T	5
Online Consumer Research	22229	B/M	4 S	10
Operations Strategy and Tactical Planning		B/M	4 L/T	5

Pricing in Global and Local Competition	21931	B/M	4 L/T	5
Principles of Management	41079	B	3 L/T	5
Project in FinTech and Blockchain Innovations	22228	M	4 S	15
Quantitative Methods for Business	21950	B	5 S	15
Recent Issues in Marketing Research	21926	B/M	4 S	10
Scientific Project: Current Issues in Social and Sustainable Entrepreneurship Research	22227	M	4 S	15
Scientific Project: Empirical Behavioral Management Research		M	4 S	15
Scientific Project in E-Business	22119	B/M	4 S	15
Scientific Project: Innovation, Internationalisation & Cross-Cultural Management	22037	M	4 S	15
Scientific Seminar: Management Science	22043	B/M	4 S	15
Scientific Project: Practical Implications of Marketing Theory	22223	M	4 S	15
Secrets of Innovation in Multinational Companies	22038	B/M	4 S	10
Seminar Operations Management		M	4 S	10
Simulation	21011	B/M	4 L/T	5
Stochastic Models in Production and Logistics	50001	B/M	4 L/T	5
Tax Planning, Firm Value and Risk	22547	M	4 S	10
The changing Business and Economics of Global Energy Markets	22212	B	3 L/T	5
Topics in empirical corporate governance	22534	B	2 S	15

### 3 Faculty of Process and Systems Engineering (FVST)

Course Name	Level	Hours per week	ECTS
Brennstoffzellen/Fuel Cell Technology	M	BS	
Computational Fluid Dynamics (CFD)	B/M	1 L	
Dispersion of Hazardous Materials	M	2L / 1T	4
Environmental Science Research Project	M	2 S	2
Environmental Biotechnology	M	2 L	
Hazardous Materials and Safety Characteristics	M	2 L	3
Industrial Explosion Protection	M	2 L	3
Molecular Modelling/Computational Biology and Chemistry	M	2 L	
Numerical simulation in explosion protection	M	2 L/T	
Plant Design (and Process Safety)	M	2L / 1T	
Prozessindustrie 4.0	M	2 L	
Simulation Lab	M	2 S	2
Wastewater and sludge treatment	M	3 L/T	

### 3 Faculty of Computer Sciences (FIN)

Course Name	Level	Hours per Week	ECTS
Advanced Interactive Information Organization	M	2S	6
Advanced Topics in Knowledge Management and Discovery KMD	M	2S	6
Advanced Topics in Networking	B/M	2 L	6

Applied Deep Learning		BS	
Applied Discrete Modelling	M	2L+2T	6
Bayes Networks	M	2L+2T	6
Biometrics and Security	M	2L+2T	6
Clean Code Development	M	2L+2T	6
Computer-Assisted Surgery	B/M	4L/T	5/6
Computer Vision and Deep Learning	M	4L/T	6
Constraint Programming	M	2 L	6
Data Management for Engineering Applications	B/M	2L+2T	6
Digital Engineering Project: Collective Decision Making	M	Project	12
Digital Engineering Project: Driving Swarm	M	Project	12
Distributed Data Management	M	2S+2T	6
Information Retrieval	B/M	2S+2T	5
Interactive Information Organization	B	2 S	3
Introduction to Computer Science for Engineers	M	2S+3T	6
Introduction to Deep Learning	B/M	2L + 2T	6
Introduction to Simulation	B/M	2L	5
Machine Learning	B/M	2S+2T	5
Machine Learning for Medical Systems	M	2S	
Modelling with UML, with semantics	M	2S+2T	6
Principles and Practices of Scientific Work	M	2S+2T	3
Recommenders	M	2S+2T	
Responsible Data Science		Project	6
Software Development for Industrial Robotics	M	2 L	6
SoftwareTesting	M	2S+2T	6
Startup Engineering II - Building a Minimum Viable Product	M	2S	6
Swarm Intelligence	M	2S+2T	6
Team Project: Driving Swarm	M	Project	6
Thesis Portal Project	B/M	Project	6
Three-dimensional & Advanced Interaction	M	2L + 2T	6
5	M	2S+2T	6
Visual Analytics in Health Care	M	2 S	3

#### 4 Faculty of Electrical Engineering and Information Technology (FEIT)

Course Name	Level	Hours per Week	ECTS
Advances in Radiation and Medical Physics	M	1 T	
Anwendung stochastischer Modelle in der EMV	M	1L+1T	
Automation Lab	M	2 P	5
Control of AC Drives	M	2 L + 1 T	5
Digital Information Processing	M	1T + 2L	
Electromagnetic Compatibility	M	2L+1T+2P	
Electromagnetic Field Theory	M	2L+1T	
Electronic Circuits	M	2L+1T	
Image Coding	B/M	2L+1T	
Integrated Project "Electrical Actuators"	M	Project	
Integrated Project "Electric Power Networks/ Renewable Energy"	M	Project	

Integrated Project "Power Electronics"	M	Project	
Introduction in Tissue Engineering	M	2 L + 4 T	5
Introduction to Programming Techniques in Engineering	M	BS	5
Mathematical Modeling of physiological Systems	M	2 L/T	
Medical Imaging in Interventional Endovascular Therapy	B/M	1 L	
Optimal Control / Predictive Control	M	3 L/T	
Positron Emission Tomography	M	3 L	5
Power Electronic Components and Systems	M	2L+1T	
Power Electronics	M	2L+1T	
Power Network Planning and Operation	M	2L+1T	
Power System Economics and Special Topics	M	2L+1T	
Project "Electrical Actuators" (for exchange students only)	M	Project	5
Project "Power Electronics" (for exchange students only)	M	Project	5
Project Seminar (as non-technical compulsory module, for exchange students)	M	Project	
Scientific Working	M	S	
Systems and Control	M	2L+1T	

## 5 Faculty of Natural Sciences (FNW)

Course Name	Level	Hours per Week	ECTS
Scientific Writing	M	L	
Cellular Neurophysiology	M	2L+1S + 2P	6
Basic Molecular & Cell Biology	M	3L+1S+1P	5
Integrative & Comparative Neuroanatomy	M	3L+2S+1P	6
Neuroethology	B/M	2L	3/4
Theoretical Neuroscience I	M	3L+2S	5
Introduction to Matlab	B/M	2 T	2
Journal Club	M	2 S	
Journal Club II	M	2 S	
Journal Club III	M	2 S	
Genetic Models	M	1L+2P	4
Neuroendocrinology / -inflammation and CNS Infections	M	1L+2P	4
Neural Signalling	M	1L+2P	4
Cognitive Neurobiology	M	2L+1P	4
Behavioural Pharmacology	M	2L+1P	4
Macroimaging	M	2L+2,5P	4
Microimaging	M	1L+2P	4
Spiking Networks	M	3L	3
Clinical Neuroscience	M	3L	4
Cognitive Neuroimaging	M	2 L	
Big data in Organizational Psychology		2 S	4
Doktorandenseminar: Neurogenetik	M	2S	
Doktorandenseminar: Systembiologie	M	3S	

Forschungsseminar: Systembiologie	M	3S	
Introduction to Nervous Systems	B	2L	4
Labrotation I	M	4 O	6
Labrotation III	M	3 P	4
Seminar über Nichtlinearität und Unordnung in komplexen Systemen		2 S	

## 6 Faculty of Engineering (FMB)

Course Name	Level	Hours per Week	ECTS
Collaborative Management in Supply Networks	M	2L+2T	5
Engineering Design I	M	2L+2T	
Finite Element Method	M	2L+2T	5
Industrial robots	M	3 L/T	5
Logistics Strategies & Methods	M	2L + 2T	
Supply Networks and Logistics Service Provider	M	4L	
Material Handling Systems	M	2L + 1S	
Modeling and Simulation of Mechatronic Systems	M	1L+1T	5
Simulation methods of dynamical systems	M	2L+2T	5
Supply Chain Practice / Enterprise Resource Planning Systems	M	BS	
Systems engineering	M	3L/T	5

## 7 Faculty of Mathematics (FMA)

Course Name	Level	Hours per Week	ECTS
Concepts and Algorithms of Optimization	M	2L + 2T	
Mathematical Economics	M	2L+2T	6
Mathematical Foundations	M	2L+2T	5
Mathematical Methods I	B	2L+3T	
Seminar Geometric formulations of inviscid fluids and their discretization	M	2 S	
Statistical Methods	B	2L+2T	5
Stochastic Processes	M	2L+2T	