

# Winter semester 2018/19

## 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

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
Coaching im Sport	M	2 L	4
Concepts of the Individual	B	2 S	4/6
Critical Approaches to Peacebuilding	M	2 S	6
Critical Security Studies	M	2 S	4/6/10
Critical viewing of war films: concept and tools	M	2 S	4/6
English in the World - the World in English	B/M	2 S	4 /6
Filmkurs: American Capitalism & the Grotesque	M	3 S	4/4/6
Gender and Commercials	B	2 S	4
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
International Organizations	M	2 S	4/6
Introduction to Cultural Studies	B/M	2 L	4/6
Introduction to Peace and Conflict Studies	M	2 L	4/6
Jane Austen: an 18th-century writer in the 19th century	M	2 S	4/6
Language and Globalization	B	2 S	4/6
Language in commercial contexts	B	2 S	4/6
Language in Politics: Britain's Divorce from the European Union	B	2 S	4/6
Language Practice	M	2 T	2
Literary Landscapes	B/M	2 S	4/6
Material Culture Studies	B/M	2 S	4/5/6
Modern American Drama	B/M	2 S	4/6
Motor Control and Motion Analysis	M	2 S	
Motor Control, Neurophysiology and Statistics	M	2 S	
„Mudblood, and proud of it!": Race and Identity in the World of Harry Potter	B	2 S	4/6
Names, paragons and frames in current-day media discourse	M	2 S	4/6/10
Narratives of the First World War in Great Britain's Collective Memory	B	2 S	4/6
Online-Communication and Social Media	B	2 S	4/6
Parliaments in the European Union	B	2 S	4/6
Poetics of Torture	B/M	2 S	2/4/6
Public apologies and denials in the post-truth era	M	2 S	4/6/10
Qualitative Methods	M	2 S	10
Resource Conflicts	M	2 S	4/6/10
Shakespeare - Tragedy, Comedy, History	B/M	2 S	4/6
Southern Short Story	B	2 S	4/6
The English Language Today	B	2 L	4/6
The Enlightenment as a European Movement	M	2 S	4/6
The European Political and Social System	M	2 S	10
The representation of migrants, refugees and	M	2 S	4/6/10

asylum seekers in the media			
The State of Nature in Rousseau and in William Golding	B	2 S	4/6
Understanding Conflict - Conflict Theories and Tools for Analysis	M	2 S	6
Why Look at Animals? Exploring Magdeburg Zoo	B	2 S	4/6

## 2 Faculty of Economics and Management (FWW)

Course Name	Level	Hours per Week	ECTS
Accounting Theory	M	2 L/2 T	5
Advanced Business Economics	M	2 S	10
Advanced Marketing Research	M	4 L/T	5
Behavioral Finance	M	3 L/T	5
Business Decision Making	B/M	3 L/T	5
Business Plan	B	4 S	15
Computational Finance and Financial Management	M	2 S	10
Computational Transportation / Integer and Combinatorial Optimization with Applications	B/M	4 L/T	5
Cross-Cultural Management	B	4 S	10
Current Issues in International Management	B	4 S	10
Downside Risk	B/M	4 L/T	5
Econometric Analysis of Experimental Data	B/M	3 L/T	5
Econometrics	B/M	3 L/T	5
Economic Analysis of Law	B	3 L/T	5
Economics of Growth	M	4 L	10
Economics of Incentives	B/M	2 S	10
Field Experiments	B/M	3 S	10
Financial Accounting	B	2 L/2 T	5
Financial Management	B/M	2 L/1 T	5
Financial Markets and Bank Management	B	3 L/T	5
Foundations for Finance	B/M	4 L/T	5
Game Theory	B/M	3 L/T	5
Globalisation: past, present, future	B	4 L	10
International Business Plan	B	2 S	10
International Corporate Strategy	B/M	3 L/T	5
International Taxation	B/M	3 L/T	5
International Tax Planning	B	3 L/T	5
International Trade	M	3 L/T	5
Introduction to Econometrics II	B	3 L/T	5
Introduction to Production Management	B	3 L/T	5
Labor Economics	B	3 L/T	5

Macroeconomic Analysis	B/M	4 L/T	5
Macroeconomics	B/M	4 L/2 T	10
Marketing Performance Management	B	2 L/2 T	5
Microeconomic Analysis	B/M	4 L/T	5
Monetary Economics	B/M	3 L/T	5
Online Consumer Research	B/M	3 S	10
Pricing in Global and Local Competition	B/M	4 L/T	5
Principles of Management	B	3 L/T	5
Project in FinTech and Blockchain Innovations	M	4 S	15
Quantitative Methods for Production and Logistics	B	5 S	15
Reading Course: Happiness-Lessons from a New Science	B	4 S	10
Recent Issues in Marketing Research	B/M	4 S	10
Scientific Project: Current Issues in Social and Sustainable Entrepreneurship Research	M	4 S	15
Scientific Project in E-Business	B/M	4 S	15
Scientific Project: Management Science	M	4 S	15
Scientific Project: Performance Measurement	M	4 S	15
Scientific Project: Practical Implications of Marketing Theory	M	4 S	15
Scientific Project Supply Chain Management	M	3 S	15
Scientific Seminar: Management Science	B/M	4 S	10
Secrets of Innovation in Multinational Companies	B/M	4 S	10
Simulation	B/M	4 L/T	5
Stochastic Models in Production and Logistics	B/M	4 L/T	5
The Art of Innovation in International Business	B	4 S	10
The changing Business and Economics of Global Energy Markets	B	3 L/T	5
The Managerial Job Market and Corporate Governance	B	2 S	15

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

Course Name	Level	Hours per week	ECTS
Brennstoffzellen/Fuel Cell Technology	M	2 S	
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	1L / 2T	
Safety Lab	M	2	
Simulation Lab	M	2 S	2
Technische Thermodynamik I	B	1 S	

Wastewater and sludge treatment	M	3 L/T	
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### 3 Faculty of Computer Sciences (FIN)

Course Name	Level	Hours per Week	ECTS
Advanced Interactive Information Organization	M	2S	3
Advanced Topics in Knowledge Management and Discovery KMD	M	2S	6
Applied Discrete Modelling	M	2L+2T	6
Ausgewählte Algorithmen in der Computergraphik	M	4S	6
Bayes Networks	M	2L+2T	6
Biometrics and Security	M	2L+2T	6
Clean Code Development	M	2L+2T	6
Computer Aided Geometric Design	B/M	2L+2T	5
Computer-Assisted Surgery	B/M	4S	5/6
Data Management for Engineering Applications	B/M	3L+2T	6
Data Science with R	M	S	6
Digital Engineering Project: Flying Swarm	M	2 P	12
Digital Engineering Project: Rolling Swarm		2 P	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	5
Introduction to Deep Learning	B/M	2L + 2T	5
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	0
Recommenders	M	2S+2T	6
Segmentation Methods for Medical Image Analysis	M	4 L/T	6
Seminar: Text-Retrieval/Mining	M	2S	6
SoftwareTesting	M	2S+2T	6
Startup Engineering II	M	2S	6
Swarm Intelligence	M	2S+2T	6
Three-dimensional & Advanced Interaction	M	4 L/T	6
Transaction Processing	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	
Digital Information Processing	M	1T	
Electromagnetic Field Theory	M	2L+1T	
Electronic Circuits	M	2L+1T	

Image Guided Surgeries	M	2 L + 2 S	
Image Coding	B/M	2L+1T	
Modern Concepts of EMC and EMC Measurement	M	2 P	
Non-Technical Project Seminar (for GRIAT students)	M	2 + 1T	
Optimal Control / Predictive Control	M	3 L/T	
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 Seminar (as non-technical compulsory module, for exchange students)	M	1 L	
Scientific Working	M	S	
Systems and Control	M	2L+1T	
Ultraschallsensoren für die Bildgebung	M	2L	

## 5 Faculty of Natural Sciences (FNW)

Course Name	Level	Hours per Week	ECTS
Cellular Neurophysiology	M	2L+1S + 2P	5
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
Genetic Models	M	1L+2P	4
Neuroendocrinology / -inflammation and CNS Infections	M	1L+2P	4
Neural Signalling	M	1L+2P	4
Quantitative Signal Transduction	M	1L	2
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		
Doktorandenseminar: Neurogenetik	M	2S	
Doktorandenseminar: Systembiologie	M	3S	
Forschungsseminar: Systembiologie	M	3S	
Introduction to Nervous Systems	B	2L	4
Scientific Writing	M	L	
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
Factory Automation and Ergonomics	M	3L/T	5
Logistische Netzwerke und Logistikdienstleister / Supply Networks and Logistics Service Provider	M	2L+1S	
Material Handling Systems	M	2 L/T	
Modeling and Simulation of Mechatronic Systems	M	1L+1T	
Simulation methods of dynamical systems	M	2L+2T	5
Supply Chain Practice / Enterprise Ressource Planning Systems	M	3L/T	
Supply Chain Practice / Enterprise Ressource Planning Systems	M	3L+1T	

## 7 Faculty of Mathematics (FMA)

Course Name	Level	Hours per Week	ECTS
Concepts and Algorithms of Optimization	M	T	
Mathematical Economics	M	2L+2T	6
Mathematical Foundations	M	2L+2T	5
Mathematical Methods I	B	2L+3T	
Optimization Methods for Machine Learning	M	4L	9
Statistical Methods	B/M	2L+2T	6
Stochastic Processes	M	2L+2T	