

# MSc SEDS additional course / seminar options

(courses in bold are offered in winter semester 2024/2025)

version: August 2024

Module	Title of the course	Course No	ECTS	Department	Language	Semester	
<b>Found.: Focus Area Mathematics</b>	<b>Mathematics for Social Scientist</b>	POL-26110	7 (lecture + tutorial)	Political Science	en	WiSe 2024/25	
<b>Found.: Focus Area Statistics</b>	<b>Einführung in die Bayes-Statistik</b>	PSY-15790	4 (seminar)	Psychology	de/en	WiSe 2024/25	
<b>Found.: Focus Area Mathematics</b>	<b>Datenmathematik</b>	INF-21120	9 (lecture + tutorial)	Computer Science	de	WiSe 2024/25	
<b>Found.: Focus Area Computer Science</b>	<b>Data Mining Basic Concepts</b>	INF-21110	6 (lecture + tutorial)	Computer Science	en	WiSe 2024/25	
	<b>Software Engineering</b>	INF-11890	6 (lecture + tutorial)	Computer Science	en	WiSe 2024/25	
<b>Advanced Methods: Computer Science</b>	<b>Network Visualization</b>	INF-14250	6 (lecture + tutorial)	Computer Science	de/en	WiSe 2024/25	
	Efficient Route Planning Techniques	INF-21390	6 (lecture + tutorial)	Computer Science	en	WiSe 2019/20	
	<b>Geographic Information Systems</b>	INF-10615	6 (lecture + tutorial)	Computer Science	en	WiSe 2024/25	
	Research Methods in HCI	INF-14270	6 (lecture + tutorial)	Computer Science	en	WiSe 2019/20	
	Document Analysis: Computational Methods	INF-14400	6 (lecture + tutorial)	Computer Science	en	SuSe 2024	
	Graph Data Management and Analysis	INF-21320	6 (lecture + tutorial)	Computer Science	en	SuSe 2024	
	Network Modeling and Relational Machine Learning	INF-14830	6 (lecture + tutorial)	Computer Science	en	WiSe 2021/22	
	Machine Learning and AI for Data Science	INF-14710	6 (lecture + tutorial)	Computer Science	en	WiSe 2020/21	
	Machine-Learning with Kernels	INF-15010	6 (lecture + tutorial)	Computer Science	en	SuSe 2021	
	Image Analysis II: 3D and Motion Reconstruction	INF-21450	6 (lecture + tutorial)	Computer Science	en	WiSe 2023/24	
	Probabilistic Modelling for Computer Scientists	INF-21460	6 (lecture + tutorial)	Computer Science	en	WiSe 2021/22	
	<b>Optimization for Data Science</b>	INF-15380	6 (lecture)	Computer Science	en	WiSe 2024/25	
	Scientific Machine Learning	INF-15480	3 (seminar)	Computer Science	en	WiSe 2021/22	
	Data Visualization: Basic Concepts	INF-14390	6 (lecture + tutorial)	Computer Science	en	SuSe 2024	
	<b>Data Visualization: Advanced Topics</b>	INF-14690	6 (lecture + tutorial)	Computer Science	en	WiSe 2024/25	
	Word Representations and Language Modeling	INF-15400	6 (lecture)	Computer Science	en	WiSe 2023/24	
	Multimedia Retrieval: Basic Concepts	INF-14480	6 (lecture)	Computer Science	en	SuSe 2024	
	Methods for Explainable AI	INF-15530	6 (lecture)	Computer Science	en	SuSe 2024	
	<b>Data Mining Basic Concepts</b>	INF-21110	6 (lecture + tutorial)	Computer Science	en	WiSe 2024/25	
	Introduction to Machine Learning	INF-15520	6 (lecture)	Computer Science	en	SuSe 2024	
	<b>Algorithm Engineering</b>	INF-14550	6 (lecture + tutorial)	Computer Science	en	WiSe 2024/25	
	<b>Applications for Powerwall and Virtual Reality Environments</b>	INF-13270	6 (lecture + tutorial)	Computer Science	en	WiSe 2024/25	
	<b>Randomized Algorithms</b>	INF-21480	6 (lecture)	Computer Science	en	WiSe 2024/25	
	<b>Seminar Data Analysis and Visualization</b>	INF-15430	3 (seminar)	Computer Science	en	WiSe 2024/25	
	<b>Advanced Methods: Statistics</b>	<b>Network Modeling and Machine Learning</b>	INF-17240	6 (lecture + tutorial)	Computer Science	en	WiSe 2024/25
		Probabilistic Modelling for Computer Scientists	INF-21460	6 (lecture + tutorial)	Computer Science	en	WiSe 2021/22
Machine Learning		ECO-19600	8 (lecture + tutorial)	Economics	en	SuSe 2024	
Applied Bayesian Statistics		POL-16960	7 (seminar)	Political Science	en	WiSe 2018/19	
Multilevel Modelling		POL-19410	7 (seminar)	Political Science	en	SuSe 2019	
<b>Einführung in die Bayes-Statistik</b>		PSY-15790	4 (seminar)	Psychology	de/en	WiSe 2024/25	
Strukturgleichungsmodelle		PSY-15610	4 (seminar)	Psychology	de	SuSe 2024	
Statistical Learning		ECO-18690	8 (lecture)	Economics	en	SuSe 2023	
<b>Financial Econometrics</b>	ECO-10370	8 (lecture)	Economics	en	WiSe 2024/25		
<b>Social Science Applications</b>	Hands-On Introduction to Data Scraping	POL-22400	7 (seminar)	Political Science	en	WiSe 2018/19	
	Einführung in die quantitative Textanalyse	POL-22330	7 (seminar)	Political Science	de	WiSe 2018/19	
	Big Data in Econometrics and Finance	ECO-15590	6 (seminar)	Economics	en	WiSe 2018/19	

Econometrics and Machine Learning	ECO-16520	6 (seminar)	Economics	en	SuSe 2019
Political Conflict in the Digital Age	POL-23530	7 (seminar)	Political Science	en	WiSe 2019/20
Neuer Theorien und Methoden der Wahlforschung	POL-22950	7 (seminar)	Political Science	de	SuSe 2024
Discursive Power	POL-23820	7 (seminar)	Political Science	en	SuSe 2020
Methoden der Sozialwissenschaftlichen Textanalyse	POL-23470	7 (seminar)	Political Science	de	SuSe 2020
Authoritarian Information Control	POL-23710	7 (seminar)	Political Science	en	SuSe 2020
Advanced Social Network Analysis: Comparing Networks	POL-23680	7 (seminar)	Political Science	en	SuSe 2020
Digital Methods and Psychological Insights in Pandemic Times	PSY-16430	6 (seminar)	Psychology	en	SuSe 2020
Probabilistic Modelling for Computer Scientists	INF-21460	6 (lecture + tutorial)	Computer Science	en	WiSe 2021/22
Master's Seminar: Visual Data Exploration	INF-21340	4 (seminar)	Computer Science	en	SuSe 2020
Master's Seminar Databases and Information Systems	INF-14460	4 (seminar)	Computer Science	en	SuSe 2020
Election Forecasting	POL-23860	7 (seminar)	Political Science	en	SuSe 2021
Web Data Collection with R	POL-24730	7 (seminar)	Political Science	en	WiSe 2020/21
Wahlsystemforschung	POL-24710	7 (seminar)	Political Science	de	WiSe 2021/22
Master's Seminar Algorithmics	INF-14450	4 (seminar)	Computer Science	en	SuSe 2021
Master's Seminar Data and Information Mining	INF-15030	3 (seminar)	Computer Science	en	SuSe 2021
Master's Seminar Data Analysis and Visualization	INF-14750	3 (seminar)	Computer Science	en	SuSe 2021
Applied Visual Analytics	INF-21230	6 (directed studies)	Computer Science	en	SuSe 2024
Data Management for Social Scientists	POL-23770	7 (seminar)	Political Science	en	SuSe 2021
Property Rights and Rural Development	POL-25140	7 (seminar)	Political Science	en	SuSe 2021
Introduction to Computer-Based Text Analysis: Analysis of Political	POL-25340	7 (seminar)	Political Science	en	SuSe 2021
Econometric Projects - Economic Forecasting	ECO-17000	6 (seminar)	Economics	en	SuSe 2021
Multi-level Data Analysis	SOC-27810	9 (seminar)	Sociology	en	WiSe 2021/22
The Legacy of Violence in Pandemic Times: Global Health Challenges and Gender Dynamics	POL-26230	7 (seminar)	Political Science	en	WiSe 2021/22
The Future of Work and Welfare: Interdisciplinary Perspectives from Political Science and Economics	POL-26160	7 (seminar)	Political Science	en	WiSe 2021/22
Digital Media and the Politics of Conflict and Contention	POL-25640	7 (seminar)	Political Science	en	WiSe 2021/22
The Politics of Inequality	POL-25410	7 (seminar)	Political Science	en	SuSe 2024
Digital Governance	POL-24390	7 (seminar)	Political Science	en	WiSe 2021/22
<b>Einführung in die Bayes-Statistik</b>	PSY-15790	4 (seminar)	Psychology	de/en	WiSe 2024/25
Strukturgleichungsmodelle	PSY-15610	4 (seminar)	Psychology	de	SuSe 2024
<b>Measurement of Inequality</b>	SOC-30490	6 (seminar)	Sociology	en	WiSe 2024/25
<b>Regression Analysis</b>	SOC-30530	6 (seminar)	Sociology	en	WiSe 2024/25
Introduction to Survey Experiments	POL-28280	7 (seminar)	Political Science	en	SuSe 2024
Applied Bank and Risk Management	ECO-17560	6 (seminar)	Economics	en	SuSe 2023
Causal Inference in Political Science Research	POL-26420	7 (seminar)	Political Science	en	SuSe 2023
<b>R Basis Bootcamp</b>	PSY-15530	4 (seminar)	Psychology	de	WiSe 2024/25