Chair / Professor	Requirements		
Prof. Dr. Christian Bizer	• Data Mining *or* • LSDM *or* • Decision Support	at least 1 specialization Course of the DWS Group	Programming skills in JAVA *and* if any Python *or* R
Prof. Dr. Heiko Paulheim	Data Mining	at least 1 specialization Course of the DWS Group	Programming skills in JAVA *or* Python
Prof. Dr. Heiner Stuckenschmidt	One of the following: • IE694 Industrial Applications of AI • Participation in one of our team projects • IS515 Process Management and Analytics AND IE692 Advanced Process Mining • IE675b Machine learning AND at least 1 course from the Area Operations Management (see MMM module Handbook) • Attended a seminar or team project with Prof. Stuckenschmidt	Programming skills in Python (preferred) or JAVA	
Prof. Dr. Rainer Gemulla	• IE675b Machine learning *or* • IE 678 Deep Learning *or* • CS 560 Large-Scale Data Management *or* • CS 707 Data and Web Science Seminar	At least 3 fundamental or specialization courses of the DWS group	Programming skills in Java and/or Python
Prof. Dr. Matthias Krause	• Algorithmics (CS 550) *or* • Kryptographie II ((CS 651) *or* • Courses in Algorithmics / Data Structures or Cryptography or Theoretical Computer Science or Compexity Theory at B.Sc. or M.Sc. level	Good programming skills in JAVA or C/C++	
Prof. Dr. Simone Ponzetto	• LSDM *or* • Decision Support	• Information Retrieval & Web Search *or* • Text Analytics *or* • Hot Topics in Machine Learning *or* • Data Mining and Matrices	programming skills in at least one high-level programming language (e.g. Java, Python, C++, C#, R and Matlab)
Prof. Dr. Guido Moerkotte	• Seminar of Prof. Moerkotte *or* • Seminar of Prof. Krause *or* • Seminar of Prof. Gemulla	Data Base Systems II	Programming skills
Prof. Dr. Colin Atkinson	Advanced Software Engineering	Ability to program in an OO language (e.g. Java, Python etc.)	
Prof. Dr. Frederik Armknecht	• Algorithmics *or* • Cryptography II *or* • Data Security (as of FSS2020) *or* • Cryptography I *or* • Selected Topics in IT-Security	Good programming skills (e.g. in JAVA or C++)	

Prof. Dr. Armin Heinzl	• successful completion of a seminar of the Area IS		
Jun.-Prof. Dr. Philipp Kellmeyer	At least 1 specialization course of the DWS Group	Experience and advanced skills in academic writing	
Prof. Dr.-Ing. Margret Keuper	At least 1 of the following courses: • CS668 Generative Computer Vision Models • CS646 Higher Level Computer Vision • CS647 Image Processing		
Prof. Dr Ratkovic	Background in applied data analysis and at least 2 of: • Causal Inference • Machine Learning • Natural Language Processing • Mathematical statistics	• Programming skills in Python and R • Work on LLMs/deep learning with applications to social sciences • Mathematical training	
Prof. Dr. Daniel Schuster	• Strong foundational knowledge in Process Mining and Data Mining (required) • Course “Advanced Process Mining” (desirable) • Very good Python programming skills (required)		