

Professional School

# **Data Science**

**MASTER OF SCIENCE (M.SC.) | UNIVERSITY CERTIFICATE** EXPLORE BIG DATA'S POTENTIAL WITH OUR PART-TIME PROGRAM

# CONCEPT

Dealing with a constantly increasing amount, velocity, and variety of data – also collectively referred to as 'big data' - can present difficulties. Due to its size, complexity, and constant evolution, this kind of data can no longer be evaluated and analyzed with classical methods of data processing. Thus, companies and institutions are facing new data science challenges in the fields of media, economy, politics, (natural) sciences, and more. To face these challenges, interdisciplinary skills are essential. The international part-time master program 'Data Science' is designed to bridge the gap between theory and practice by providing students with interdisciplinary, practical, and applicable knowledge in Data Science. It covers topics from information systems, computer science, mathematics, statistics, business administration. marketing, and communications, preparing you to address 'big data' challenges effectively.

# **TARGET GROUP**

The Data Science Master program addresses experienced professionals seeking to enhance their data science skills, including specialists in areas such as e-business, internet and social media, community management, logistics and analytics. It is designed for practitioners who face challenges in managing and analyzing 'big data' and whose prior academic education only covered portions of the necessary expertise.

# CONTENTS

Renowned lecturers from both science and practice impart their knowledge and skills in dedicated modules in the following subject areas:

- **1.** Introduction to Data Science and Programming Systems
- 2. Data Management
- 3. Data Analytics
- 4. IT-Management, IT-Security, Ethics, Legal Aspects
- 5. Self-Management & Leadership
- 6. Practical Phase & Project Work
- 7. Social Media & Communications
- 8. Application Areas
- 9. Master Thesis

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# **MASTER PROGRAM**

Our English-speaking interdisciplinary and international Data Science Master program is designed for working professionals and can be completed alongside a full-time job. Besides a strong foundation in programming, data analysis, data management, and AI, the program especially focuses on hands-on application within real-world business settings.

In addition to its interdisciplinary approach, the uniqueness of the program lies in its international collaboration between the University of Münster and the University of Twente, with lectures taking place both in Münster and on the campus of the University of Twente in Enschede. This part-time education leads to a full Master of Science degree of the University of Münster.

# **UNIVERSITY CERTIFICATE**

The certificate program provides the knowledge and practical skills necessary for participants to analyze 'Big Data'. It comprises four modules (2 elective & 2 compulsory) from the English-language, part-time master's program. Depending on your professional focus or personal preferences, you can choose two elective modules and thus a study specialization. The following exemplary module combinations are possible:

#### **Data Analyst**

consists of the 2 compulsory modules 1 and 6, as well as the 2 elective modules 2 and 3.

#### **Leaderships Skills**

consists of the 2 compulsory mandatory modules 1 and 6, as well as the 2 elective modules 2 and 5.

#### **Management Analytics**

consists of the 2 compulsory modules 1 and 6, as well as the 2 elective modules 2 and 4.

#### **Communication Analytics**

consists of the 2 compulsory modules 1 and 6, as well as the 2 elective modules 2 and 7.

### **FACULTY TEAM**

Our teaching team is the heart of the program. Experienced professors and renowned practitioners from the field bring their expertise and support you in realizing your full academic potential. By combining theoretical knowledge with practical experience, our instructors create an ideal synergy that provides you with a comprehensive understanding of the subject matter and prepares you for a successful career.

# **ADMISSION REQUIREMENTS**

- A relevant undergraduate or first degree (e. g. Bachelor, Diploma, Master)
- At least one year of professional work experience
- English level B2 pursuant to the Common European Framework of Reference for Languages (CEFR)

# **KEY FACTS**

Degree: Master of Science Duration: 4 Semesters Start Date: Annualy in December Application Deadline: 4 weeks before the start of the program Language of Instruction: English Tuition Fee: Master of Science: € 16,950\* University Certificate: € 7,450\*

\* exempt from VAT pursuant to § 4 No.21 a (bb) UStG



# Contact

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