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MASTER (M.SC.) BUSINESS INTELLIGENCE

Database administration, business intelligence and reporting services are still among the IT trends of the coming years, not least because they support companies in making data-driven decisions in order to be prepared for the future. The master's degree in Business Intelligence offers a well-rounded and, at the same time, specialised training in business intelligence and qualifies graduates to take on responsibility in processing, storing and visualizing company-specific data.

Degree
Master of Science (M.Sc.)

Electives
In the Business Intelligence 120 ECTS (60 ECTS) online programme, you can choose electives worth 20 ECTS (10 ECTS) and focus on interesting practical areas.

Study model and accreditation
– Online
– German accredited institution, recognised by ZFU (German Central Office for Distance Learning)

Study start and duration
Official start date: 60 ECTS: 1st September 2023*
120 ECTS: 1st March 2023
Afterwards: Anytime
Duration: 60 ECTS: 12, 18, or 24 months
120 ECTS: 24, 36, or 48 months.

Credits
60 or 120 ECTS

iu **INTERNATIONAL UNIVERSITY OF APPLIED SCIENCES**

*This programme is still in the process of accreditation and recognition. We expect approval from the relevant ministry by the programme's official start date. So far, all IU programmes have been accredited and approved successfully and on time.

Study Content (60 or 120 ECTS)

MODULE TITLE	SEMESTER	CREDITS (ECTS)	TEST TYPE
60-ECTS MODEL			
	1		
Business Intelligence I		5 ECTS	WACS
Relational and NoSQL Databases		5 ECTS	WAWA
Data Query Languages		5 ECTS	OA
Project: Business Intelligence		5 ECTS	PO
Data Warehousing Architecture Types		5 ECTS	E
Seminar: Data Warehouse Approaches and Methodologies		5 ECTS	WARE
	2		
Advanced Research Methods		5 ECTS	WAWA
Elective A		10 ECTS	
Master Thesis & Colloquium		15 ECTS	WAMT & PC

MODULE TITLE	SEMESTER	CREDITS (ECTS)	TEST TYPE
120-ECTS MODEL			
	1		
Business Intelligence I		5 ECTS	WACS
Concepts in Data Management		5 ECTS	E
Corporate Governance of IT, Compliance, and Law		5 ECTS	E
Relational and NoSQL Databases		5 ECTS	WAWA
Data Query Languages		5 ECTS	OA
Project: Business Intelligence		5 ECTS	PO
	2		
Seminar: Ethic & Societal Considerations in Data Management		5 ECTS	WARE
Strategic Management		5 ECTS	E
Data Warehousing Architecture Types		5 ECTS	E
Extract, Transform and Load Technologies		5 ECTS	WACS
Advanced Research Methods		5 ECTS	WAWA
Seminar: Data Warehouse Approaches and Methodologies		5 ECTS	WARE
	3		
Data Modeling and Reporting		5 ECTS	E
Project: Data Modeling and Reporting		5 ECTS	WAPR
Electives A		10 ECTS	
Electives B		10 ECTS	
	4		
Master Thesis & Colloquium		30 ECTS	WAMT & PC

CHOOSE YOUR ELECTIVES

Choose one elective from "Electives A" list:
– Applied Data Modeling and Reporting
– Big Data Engineering
– Storage and Data Provisioning in Data Warehouse Systems

Choose one elective from "Electives A" list:
– Big Data
– Big Data Engineering
– Data Engineer
– Data Miner
– Digital Business and Entrepeneurship
– Digital Business Models and Change
– Digital Marketing
– Technical Project Lead

Choose one elective from "Electives B" list:
– Big Data
– Big Data Engineering
– Data Engineer
– Data Miner
– Digital Business and Entrepeneurship
– Digital Business Models and Change
– Digital Marketing
– Technical Project Lead

E = Exam, OA = Oral assignment, PC = Presentation: Colloquium, WB = Workbook, BWB = Basic Workbook, AWB = Advanced Workbook, WABT = Written assessment: Bachelor thesis, WACS = Written assessment: Case study, WAMT = Written assessment: Master thesis, WAPR = Written assessment: Project report, WARE = Written assessment: Research essay, WAWA = Written assessment: Written assignment, OP = Online Presentation, OPR = Oral project report, P = Portfolio, POP = Proof of Participation

ELECTIVES

In the 120 ECTS programme, you have the opportunity to choose electives of 20 ECTS and get an in-depth knowledge of your desired areas and sectors. In the 60 ECTS programme, you choose an elective of 10 ECTS.

TECHNICAL PROJECT LEAD (120 ECTS)

If you're considering a career that combines technical knowledge with managerial skills, then this module is the right choice for you. Here, you'll develop the skill set required for owning and managing IT projects across different industries. You'll start by learning the basic principles of project management, and how they apply to IT projects. You'll then be acquainted with common challenges faced by IT managers, how to identify them and what solutions to offer. You'll round out your expertise by exploring IT project organisation and planning, cost management and staffing and team leadership topics.

DATA MINER (120 ECTS)

In the Data Miner elective, you'll get a thorough overview of data mining and its key aspects and methods. Analyse and explore data mining processes, data retrieval strategies and data quality and preparation methods. Find out what are the different types of data sources is learned and gain insights into important data mining and web scraping techniques. To round up your skills, the concepts of data economy and the legal requirements and usage guidelines associated with data mining will be presented.

BIG DATA ENGINEERING (60/120 ECTS)

Develop your understanding of how to harness the power of data. Explore how data needs to be stored and processed, and get acquainted with the four "Vs" of data: volume, variety, velocity, and veracity, along with commonly used data sources and types. Furthering your knowledge, you'll examine how data is stored in databases, most specifically relational, noSQL, NewSQL and time-series databases. To round off your expertise in this field, you'll cover different types of storage formats and distributed computing environments.

CAREER OUTLOOK

With your Master's in Business Intelligence, you can expect excellent cross-industry career prospects with lucrative opportunities for advancement to a manager position. After you graduate for example, you could work as one of the following.

BUSINESS INTELLIGENCE ANALYST

As a business intelligence analyst, you have a high affinity for data and recognize their interrelationships. You are responsible for the preparation, cleaning and modelling of data in order to gain business-relevant insights. You define requirements for complex data analyses and develop concepts for them. You will also evaluate business processes and communicate your results to stakeholders using relevant KPIs.

BUSINESS INTELLIGENCE SOLUTION ARCHITECT

Business Intelligence Solution Architects focus on analysing business processes. From this, they derive the technologically required BI components. They develop database models and data warehouse architectures. In addition, they create reports and dashboards for both their internal customers and stakeholders.

DATA CONSULTANT

As a data consultant, you will develop data strategies based on your BI expertise. Your work ranges from solving specific questions with BI to establishing company-wide strategies. You also have the opportunity to provide independent advice to relevant interest groups in data and BI projects.

ADMISSION

ADMISSION REQUIREMENTS FOR 60-ECTS
– Completed, undergraduate degree with 240 ECTS.
– Your degree must be from a state or state-recognised higher education institution/university
– You must have achieved a final grade of at least "satisfactory" or Grade C equivalent in your previous undergraduate degree
– Proof of at least one year's professional work experience completed prior to the start of study programme. Work experience must have been gained after completion of your undergraduate studies

ADMISSION REQUIREMENTS FOR 120-ECTS
– Completed, undergraduate degree with 180 ECTS with a focus on **Economics or Business Administration, Natural Sciences, Data Science or (Business) Informatics or Computer Science**
– Your degree must be from a state or state-recognised higher education institution/university
– You must have achieved a final grade of at least "satisfactory" or Grade C equivalent in your previous undergraduate degree

FURTHER ADMISSION OPPORTUNITIES
For the 60 ECTS programme:
Depending on your previous education, the following entry options are applicable for the **60-ECTS** Master's degree:
– undergraduate degree with 210 ECTS: you can bridge the gap of 30 ECTS with the proof of one year qualified work experience

– undergraduate degree with 180 ECTS: you can bridge the gap of 60 ECTS with the proof of two years qualified work experience

Recognition of knowledge and abilities acquired outside of higher education is possible in principle.

Is your undergraduate degree not in the required subject field for this programme's **120 ECTS points variation admission** requirements? You can still apply! You'll have to take 2 specific courses at the start of your studies, and pass them successfully in order to continue with your studies. That way, you don't have to take an entrance examination, and can prove your skills while earning ECTS points as part of your studies.

WORK EXPERIENCE
For the 60 ECTS programme:
– Proof of at least one year's qualified work experience completed prior to the start of the study programme (the work experience must be gained after the completion of your undergraduate studies).
– Don't have a year's worth of qualified work experience? Don't worry! With the Scholarship Programme, you can start your studies right away, and gain your professional experience alongside your studies. You'll need to achieve the one year's worth of experience before you complete your Scholarship Programme.
– You can provide us a translation of your employment contract and your pay slip or you can ask your company to fill out this form in English, sign it, apply the company stamp and send it to us.

SCHOLARSHIP PROGRAMME
Start in our scholarship programme as a participant with immediate access to 50% of your courses. Once admission and the courses are completed, you can finish your degree.

– To start a 120-ECTS degree, you will need a minimum of 180 ECTS credits from your previous studies.
– To start a 60-ECTS degree, you will need a minimum of 240 ECTS credits from your previous studies but can "bridge" up to 60 ECTS with 2 years of professional experience.

Questions? Speak to one of our study advisors, they will guide your through every step of the process.

AT IU, WE TEACH IN ENGLISH TO PREPARE YOU FOR THE INTERNATIONAL MARKET
We therefore ask for proof of your English language skills*. If English is your native language or you graduated from an English-speaking school/university, you don't need to prove your English skills.

Accepted certifications:
– English Courses (complimentary when signing up with IU)**
– TOEFL (min. 80 points) or
– IELTS (min. Level 6.0 out of 9 points) or
– Duolingo English test (min. 95 points) or
– Cambridge Certificate (min. B grade overall) or
– Equivalent proof

*Proof must be provided before the start of the study and must not be older than five years.
**Please note that English Courses aren't accepted as a language certificate for on campus study programmes.

8 STEPS TO COMPLETE YOUR STUDIES

1 Register and apply online

2 Choose your course

3 Download your study scripts

4 Work independently with study scripts

5 Take part in Q&A sessions

6 Prepare for exams and take them either:
– directly online, or
– at an IU examination centre (remember to register in time).

7 Master thesis and colloquium

8 Complete your studies with certificate