

## OCCUPATIONAL FIELDS

There is no doubt that the demand for IT-specialists is growing year by year on the Job Market.

At the moment this demand is particularly high when it's about «Artificial Intelligence» and «Blockchain & Distributed Ledger».

Our graduates have the best qualification and the highest chances to work as IT-experts in the field of development and application of Blockchain Infrastructures or even to found own Blockchain Startup.



# BLOCKCHAIN TECHNOLOGY

## COURSE INFORMATION

**Regular study period:** 4 semesters, full-time

**Start:** Winter Semester

**Language:** Bilingual

**Academic degree:** Master of Science (M.Sc.)

## ADMISSION

Studying at the Blockchain and Distributed Ledger Technologies (DLT) at Mittweida University of Applied Sciences can start,

- who can prove a first qualifying university degree in a relevant study program, or
- who can demonstrate a degree recognized as equivalent.

## APPLICATION DOCUMENTS

- Signed application form
- Passport copy
- 1 photo (35 x 45 mm, student's name on the back)
- Curriculum vitae
- Motivation letter

**+ 1 verified copy with a verified German (or English) translation of each of the following documents:**

- Certificate of first academic degree including transcript of records
- Proof of German language skills

## APPLICATION DEADLINE: MAY 15

Applications received after the deadline may be accepted depending on availability of places. The academic year starts in October.

## APPLICATIONS AND INQUIRIES

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Application Service  
Ms Simone Natzschka  
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Email: [application@hs-mittweida.de](mailto:application@hs-mittweida.de)

[www.studium.hs-mittweida.de/en/bewerbung](http://www.studium.hs-mittweida.de/en/bewerbung)

## COURSE GUIDANCE/ DEAN OF STUDY

Faculty Applied Computer Sciences & Biosciences

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<http://blockchain.hs-mittweida.de>

(version 03/18)

MASTER OF SCIENCE

# BLOCKCHAIN & DISTRIBUTED LEDGER TECHNOLOGIES (DLT)

Bilingual

## COURSE OBJECTIVE

Blockchain technology will be the encryption base for digital value streams and digital document management of the future.

Counterfeit-proof digital evidence paves the way from the Internet of digital copies in which we now work to the Internet of digital originals and assets. Blockchain technology forms for example, the accounting base for the Internet of Things and for the sharing economy. It enables digital identity management, digital currency handling, micropayment models, and secure digital documentation of transactions, decisions, and processes. Thus, it is expected to massively change the state, the financial economy and the real economy, but also society in unprecedented ways.

This forward-looking development requires in-depth training of students. In particular, graduates of Bachelor courses such as Applied Computer Science, Media Informatics and General and Digital Forensics should be given the opportunity to further qualify themselves in a targeted manner.

Depending on the requirements, students may specialize either in the technical field (Mathematics & Computer Science) or rather in the business-related field (Law & Risk Management).

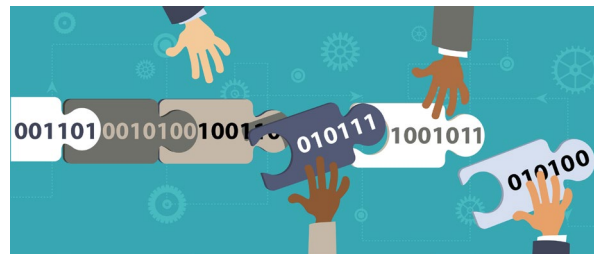
## CURRICULAR DESIGN

The Master's program consists of four semesters and is bilingual, some courses are in English (eg Mathematics), but most are in German.

In addition to the common basic subjects for all (Mathematical Foundations and the four modules Blockchain 1-4), there are two qualification lines:

- Blockchain Technical Applications and
- Blockchain Non-Technical Aspects.

Every student has to take at least 30 credits per semester.



From the two qualification blocks Blockchain Technical Applications and Blockchain Non-Technical Aspects, students can choose elective courses (including cross-line) amounting to at least 15 credits per semester.

A compulsory internship in a company or in the Blockchain Competence Center Mittweida (BCCM) is scheduled for the third semester. This is followed by the Master's project in the 4th semester.

## COURSE OVERVIEW

Semester	1	2	3	4
<b>Blockchain Basics (obligated)</b>				
Foundations of Modern Cryptography	4			
Blockchain 1	4			
Blockchain 2	4			
Cryptanalysis		4		
Blockchain 3		4		
Blockchain 4 (Complex seminar)		4		
<b>Blockchain Technical Applications</b>				
Internet of Things	4			
Software Defined Radio	4			
Advanced Graph Theory and Network Algorithms	4			
Introduction in Game Theory	4			
Supply Chain Management		4		
Internet & Network Forensik		4		
Architecture of complex Software systems		4		
Reliability of Communication Networks		4		
<b>Blockchain Non-Technical Aspects</b>				
IT-Law	4			
E-Entrepreneurship & Digital Innovation Management	4			
Risk Management & Venture Capital Enterprise		4		
Ethics and Values of Digital Innovation		4		
Obligated internship (20 weeks)			•	
Master's project (20 weeks)				•
<b>SWS*</b>	24	24		

\*SWS: period a week (1 SWS is equivalent to 45 minutes)

Note: Preliminary Course Overview- Changes/additions reserved.