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# MASTER (M.SC.) **APPLIED ARTIFICIAL** INTELLIGENCE

Generally speaking, AI is shaping the future of workplaces and is becoming increasingly important in various industries. As a result, there's an increasing demand for AI experts who possess a firm grasp of AI methodologies and can effectively apply them to solve common business challenges. Gain a competitive advantage by enrolling in the Master's in Applied Artificial Intelligence.

The objective of this distance learning master's in Applied Artificial Intelligence is to broaden the understanding of current methods within the field, all while focusing on specific real-world, practical applications.

This programme replaces the Master in Artificial Intelligence 60 ECTS credits as of 01.02.2024



#### Degree Master of Science (M.Sc.)

#### Electives

In the Master Applied Artificial Intelligence online programme, you can choose one elective worth 20 ECTS credits and focus on interesting practical areas.



#### Study model and accreditation

- German accredited institution, recognised by ZFU (German Central Office for Distance Learning)



Study start and duration Official start date: 01.02.2024\* Duration: 24, 36, 48 months







\*With the start of your programme from 01.02.2024 you will study in an adapted curriculum. Would you like to start your studies before that? You can still enrol in the currently accredited Master Artificial Intelligence 60 ECTS credits study programme until 31.01.2024.

### Curriculum (60 ECTS credits)

MODULE TITLE	SEMESTER	CREDITS (ECTS)	TEST TYPE
	1		
Machine Learning		5	E
Deep Learning		5	OA
Reinforcement Learning		5	WAWA
Inference and Causality		5	AWB
Electives A		10	
	2		
Electives B		10	
Seminar: Current Topics in Al		5	WARE
Master Thesis & Colloquium		15	

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

#### **CHOOSE YOUR ELECTIVES**

#### **FROM ELECTIVES A:\***

#### **Track AI in Automotive:**

- Applied Autonomous Driving

#### **Track AI and Computer Vision:**

- Foundational Computer Vision

#### Track AI in FinTech:

- Artificial Intelligence in FinTech

#### **Track AI in Healthcare:**

- AI in Healthcare and Medical Imaging

#### Track AI and NLP:

 Natural Language Processing and Voice Assistants

#### **Track AI in Production:**

- Industrial AI

#### Track AI for Supply Chain Management:

 Artificial Intelligence in Supply Chain Management

#### Track AI in Marketing and E-Commerce:

 AI in E-Commerce, Marketing and Demand Forecast

## Modules not included in a specific track:

- AI in Healthcare and Medical NLP
- AI in Healthcare and Medical Robotics
- AI in E-Commerce, Marketing and Analytics
- AI in E-Commerce and Customercentric Marketing
- Industrial Production Systems
- Computer Vision for Production Systems
- NLP and its Application in Education
- NLP and its Application for Accessibility

#### **FROM ELECTIVES B:\***

#### **Track AI in Automotive:**

 Functional Security and Computer Vision for Autonomous Systems

#### **Track AI and Computer Vision:**

- Cognitive Computer Vision

#### **Track AI in FinTech:**

- Robo Advisory and AI in FinTech

#### **Track AI in Healthcare:**

Medical NLP and Medical Robotics

#### Track AI and NLP:

 NLP and Innovative Technologies in Education

#### **Track AI in Production:**

 Industrial Automation and Computer Vision for Autonomous Systems

#### Track AI for Supply Chain Management:

 AI and its Application in Demand Forecast and Procurement

#### Track AI in Marketing and E-Commerce:

 AI for Analytics, Personalization and Recommender Systems

## Modules not included in a specific track:

- Computer Vision and NLP
- Advanced Robotics 4.0
- Computer Vision Essentials

## **CAREER OUTLOOK**

As the demand for AI experts continues to rise, you'll be well-prepared for tomorrow's workplace, which places a greater emphasis on automation. This will open doors to various career opportunities spanning across different industries.



#### **ADMISSION REQUIREMENTS FOR 60 ECTS CREDITS**

- Completed, undergraduate degree with 240 ECTS credits
- 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

#### FURTHER ADMISSION OPPORTUNITIES

#### For the 60 ECTS credit programme:

Depending on your previous education, the following entry options are applicable for the 60 ECTS credit Master's degree:

- undergraduate degree with 210 ECTS credits: you can bridge the gap of 30 ECTS credits with the proof of one-year qualified work experience
- undergraduate degree with 180 ECTS credits: you can bridge the gap of 60 ECTS credits with the proof of two years qualified work experience

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



#### WORK EXPERIENCE

- 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.

#### ADDITIONAL SPECIALIST KNOWLEDGE

To study this 60 ECTS credits study program, you will need to have taken courses in the areas of Advanced Mathematics, Advanced Statistics and Programming with Python or demonstrate equivalent knowledge. You can take the corresponding courses online with us for free.

#### SCHOLARSHIP PROGRAMME: HELP GETTING STARTED

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

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

#### **PROOF OF ENGLISH LANGUAGE SKILLS**

At IU, we teach in English to prepare you for the international market. We, therefore, ask for proof of your English language skills.\*

- TOEFL (minimum 80 points) or
- IELTS (minimum Level 6) or
- Duolingo English-Test (min. 95 points) or
- PTE Academics (minimum 59 points) or
- Cambridge Certificate (minimum Grade B)

## 8 STEPS TO COMPLETE YOUR STUDIES

