

IU International

# BACHELOR (B.SC.) APPLIED ARTIFICIAL INTELLIGENCE

It can be found in chatbots, digital assistants or self-driving cars: artificial intelligence leads to innovative products and services and has achieved spectacular successes for business and science. The Artificial Intelligence distance learning programme offers you a unique combination of methodological basics and specialisations for a broad field of applications. The focus of your bachelor's degree is on language and image processing, machine learning, robotics, UI/UX and software development. Since you complete the programme in English, you also have all the prerequisites to convince international audiences with your expertise.



## Degree

Bachelor of Science (B.Sc.)



## Study start

Start online studies: Anytime

Start (on campus): October 2022\*

(then 2 times a year: Oct or Apr)



## Study model available

Online, or On Campus



## Duration

Online: 36, 48, or 72 months

On Campus: 36 months



## Credits

180 ECTS



## Ultimate flexibility

Our On Campus model means that...

- You can start your degree online for distance learning while taking care of visa issues and join us later in Germany to experience campus life. You say which semester you want to spend on campus or online.
- You want to go on a trip during your studies? No problem. You can study online at your own pace without missing any classes.



## Fees

Online: From €75 per month

On Campus: From €349 per month

\*Subject to approval by the Thuringian Ministry of Economy, Science and Digital Society. We expect the Ministry's approval no later than the start of the studies. So far, the approval has always been on time.

## Study Content (180 ECTS)

PRESENCE TIMEFRAME	MODULE TITLE	SEMESTER	CREDITS (ECTS)	TEST TYPE
		<b>1</b>		
Oct/Nov/Dec	Artificial Intelligence		5 ECTS	E
Oct/Nov/Dec	Introduction to Academic Work		5 ECTS	BWB
Oct/Nov/Dec	Mathematics: Analysis		5 ECTS	E
Jan/Feb/Mar	Introduction to Programming with Python		5 ECTS	E
Jan/Feb/Mar	Collaborative Work		5 ECTS	OA
Jan/Feb/Mar	Statistics – Probability and Descriptive Statistics		5 ECTS	E
		<b>2</b>		
Apr/May	Object Oriented and Functional Programming with Python		5 ECTS	P
Apr/May	Mathematics: Linear Algebra		5 ECTS	E
Apr/May	Statistics – Inferential Statistics		5 ECTS	E
Jul/Aug	Cloud Programming		5 ECTS	P
Jul/Aug	Machine Learning – Supervised Learning		5 ECTS	E
Jul/Aug	Machine Learning – Unsupervised Learning and Feature Engineering		5 ECTS	WACS
		<b>3</b>		
Oct/Nov/Dec	Cloud Computing		5 ECTS	E
Oct/Nov/Dec	Neural Nets and Deep Learning		5 ECTS	OA
Oct/Nov/Dec	Data Science Software Engineering		5 ECTS	E
Jan/Feb/Mar	Introduction to Computer Vision		5 ECTS	E
Jan/Feb/Mar	Project: Computer Vision		5 ECTS	WAPR
Jan/Feb/Mar	Introduction to Reinforcement Learning		5 ECTS	E
		<b>4</b>		
Apr/May	Introduction to NLP		5 ECTS	E
Apr/May	Project: NLP		5 ECTS	WAPR
Apr/May	Agile Project Management		5 ECTS	WAPR
Jul/Aug	Introduction to Data Protection and IT Security		5 ECTS	E
Jul/Aug	User Experience		5 ECTS	E
Jul/Aug	UX-Project OR Project: Edge AI		5 ECTS	WAPR
		<b>5</b>		
Oct/Nov/Dec	Introduction to Robotics		5 ECTS	E/WAWA
Oct/Nov/Dec	Intercultural and Ethical Decision-Making		5 ECTS	WACS
Online	Electives A		10 ECTS	
Jan/Feb/Mar	Seminar: Ethical Considerations in Data Science		5 ECTS	WARE
Online	Electives B		10 ECTS	
		<b>6</b>		
Apr/May	Project: From Model to Production		10 ECTS	
Online	Electives C		10 ECTS	
Online	Bachelor Thesis & Colloquium		10 ECTS	WABT & PC

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, OPR = Oral project report, P = Portfolio, POP = Proof of Participation

## CHOOSE YOUR ELECTIVES

### Choose one elective from the Elective subject area A:

- Augmented, Mixed and Virtual Reality
- Autonomous Driving
- Business Intelligence
- Data Analyst
- Data Engineer
- Database Developer
- Digital Signal Processing and Sensor Technology
- Production Engineering, Automation and Robotics

### Choose one elective from the Elective subject area B:

- Applied Sales
- International Marketing and Branding
- IT Project and Architecture Management
- Psychology of Human Computer Interaction
- Supply Chain Management

### Choose one elective from the Elective subject area C:

- Applied Sales
- Augmented, Mixed and Virtual Reality
- Autonomous Driving
- Business Intelligence
- Data Analyst
- Data Engineer
- Database Developer
- Digital Signal Processing and Sensor Technology
- Financial Services Management
- Foreign Language French
- Foreign Language German
- Foreign Language Italian
- Foreign Language Spanish
- International Marketing and Branding
- IT Project and Architecture Management
- Production Engineering, Automation and Robotics
- Psychology of Human Computer Interaction
- Studium Generale
- Supply Chain Management

Choose one elective from each block.