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MASTER (M.SC.) DEVOPS AND CLOUD COMPUTING MANAGEMENT 60 ECTS

IT specialists are always needed to help companies build future-proof IT infrastructure. Liaise between software development and IT operations to accelerate the creation and delivery of software and system updates.


The advanced master's program in DevOps and Cloud Computing Management will help you gain a deeper understanding of IT operations: Improve and optimize processes continuously with agile software development. Additionally, you will deal with the organizational and cultural frameworks of the IT industry. Help make a decisive contribution to change management and qualifying yourself for management responsibilities.

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

 **Electives**
In the DevOps and Cloud Computing Management online programme, you can choose one elective worth 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: March 1st, 2024*
Afterwards: Anytime
Duration: 24, 36, 48 months

 **Credits**
60 ECTS

*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.

iu INTERNATIONAL
UNIVERSITY OF
APPLIED SCIENCES

Study Content (60 ECTS)

MODULE TITLE	SEMESTER	CREDITS (ECTS)	TEST TYPE
1			
Agile Project Management		5 ECTS	WACS
DevOps		5 ECTS	WACS
Introduction to Cloud Computing and Serverless Computing		5 ECTS	E
Seminar: Strategic Analysis		5 ECTS	WARE
Business Communication and Storytelling		5 ECTS	CP
Applied Research		5 ECTS	WAWA
2			
Seminar: Computer Science and Society		5 ECTS	WARE
Electives A		10 ECTS	
Master Thesis & Colloquium		15 ECTS	WAMT & PC

CHOOSE YOUR ELECTIVES

Choose one elective from

“Electives A” list:

- Applied Container Orchestration
- Continuous and Lifecycle Security
- Internet of Things and Ethical Reflection in Management
- IT Governance, Compliance and Service Management
- IT Services and Architecture Management
- Process Management with Scrum
- Product Development and Design Thinking
- Project Management with PRINCE2®
- Project Management within Operations

ELECTIVES

PROCESS MANAGEMENT WITH SCRUM

With Process Management with Scrum, you'll learn how scrum enables software development organizations to prioritize the workload and break it down into manageable chunks. By gaining scrum skills, you can ensure your business is able to increase value by ensuring customers get what they really want.

IT SERVICES AND ARCHITECTURE MANAGEMENT

The term "IT Services and Architecture Management" refers to all of the tasks carried out by a company to develop, plan, deliver, run, and manage the information technology (IT) services offered to customers. Architecture blueprints are very important for IT organizations. Understanding IT architecture management will help you ensure that your IT department is supporting and even improving your organization's overall mission by aligning their goals with those of your business.

CAREER OUTLOOK

There are numbers of flexible work opportunities in the IT industry, which can lead to strong compensation potential. Depending on which of the two core areas of your studies you focus on, various lucrative jobs await you. For instance, as a DevOps (Cloud) Engineer, you are overseeing and developing continuous integration and delivery pipelines. Alternatively, you can serve as an agile process consultant to help businesses implement their digitalization plans. You often carry out these tasks in an IT team, demonstrating your proficiency in conversation with your co-workers.

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

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.

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 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 you through every step of the process.

ENGLISH SKILLS

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

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

*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.

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MASTER (M.SC.) DEVOPS AND CLOUD COMPUTING 120 ECTS

The need for new IT professionals continues to rise. Work as a liaison between software development and IT operations to accelerate the building and delivery of software and system updates. By doing so, you can assist companies in effectively maintaining operational stability.

Smart IT infrastructure is crucial for today's modern workplace. Every business would ideally prefer to have a future-proof IT infrastructure. With a Master's degree in DevOps and Cloud Computing from IU, you can do just that. Your master's degree will focus on areas of DevOps – i.e. the integration of software development (development) and IT operations (ops) – and cloud computing. Using your newly acquired knowledge, you can ensure that your IT department supports and even strengthens your business's overall goals by aligning its goals with yours.



Degree

Master of Science (M.Sc.)



Electives

In the DevOps and Cloud Computing online programme, you can choose electives worth 20 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: September 1st, 2023*

Afterwards: Anytime

Duration: 24, 36, 48 months



Credits

120 ECTS

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Study Content (120 ECTS)

MODULE TITLE	SEMESTER	CREDITS (ECTS)	TEST TYPE
1			
Agile Software Development Techniques and Methods		5 ECTS	WACS
IT Service Management		5 ECTS	E
DevOps		5 ECTS	WACS
Advanced Research Methods		5 ECTS	WAWA
Introduction to Cloud Computing and Serverless Computing		5 ECTS	E
Project: Cloud Computing		5 ECTS	WAPR
2			
Product Development		5 ECTS	E
Design Thinking		5 ECTS	WARE
Cyber Security and Data Protection		5 ECTS	OA
Seminar: Applying Threat Intelligence		5 ECTS	WARE
Container Orchestration		5 ECTS	E/CS
Project: Container Orchestration		5 ECTS	WAPR
3			
Cyber Risk Assessment and Management		5 ECTS	E
Seminar: Computer Science and Society		5 ECTS	WARE
Electives A		10 ECTS	
Electives B		10 ECTS	
4			
Master Thesis & Colloquium		15 ECTS	WAMT & PC

CHOOSE YOUR ELECTIVES

Choose one elective from

“Electives A” list:

- Audit- and Security Testing
- IT Governance, Compliance and Service Management
- Prerequisites for Machine Learning
- Secure Software Entwicklung
- Sustainable Corporate Development

Choose one elective from

“Electives B” list:

- Aspects of Modern Business Communication
- E-Commerce
- Internet of Things and Ethical Reflection in Management
- IT Services and Architecture Management
- Machine Learning and Deep Learning
- Management Consulting
- Process Management with Scrum
- Project Management within Operations
- IT Law for IT Security

ELECTIVES

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CAREER OUTLOOK

The IT sector offers a variety of work opportunities with competitive pay. You could, for instance, act as an expert in Cloud Lifecycle for companies. As a cloud engineering consultant, you will provide guidance to diverse businesses on the execution of their cloud strategy. You can also serve as a driving force behind the development of IT structures in various businesses thanks to your expertise in the DevOps field (Strategic IT Service Manager with DevOps orientation). Alternately, as a Cloud Solution Architect, you can guarantee the creation of cloud architectures that are solution-oriented. In doing so, you always make sure that this is done in accordance with IT security guidelines.

ADMISSION

ADMISSION REQUIREMENTS FOR 120 ECTS

- Completed undergraduate degree with 180 ECTS with a focus on **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

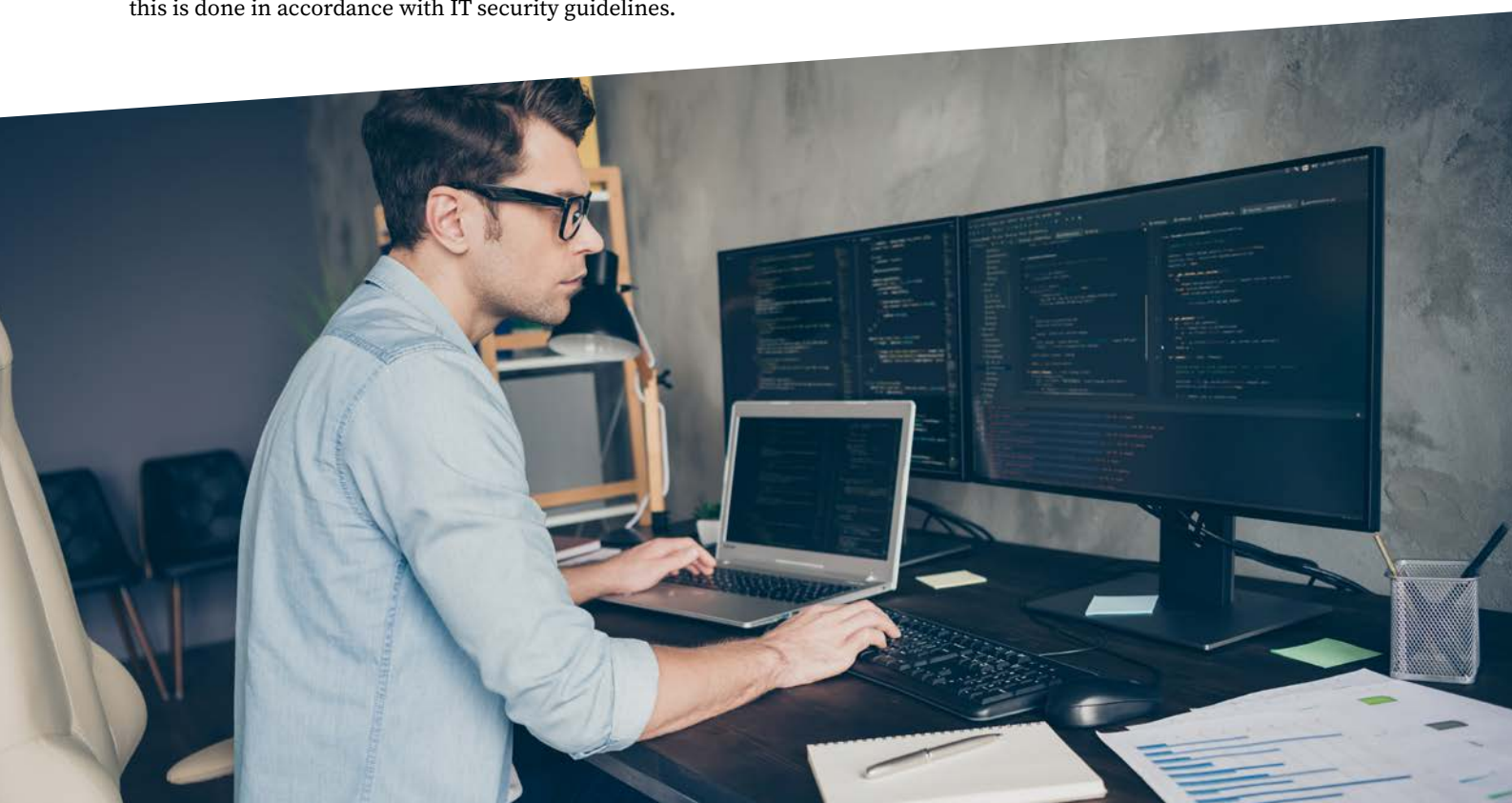
Is your undergraduate degree not in the required subject field for this programme's **120 ECTS points variation admission** requirements? You can still apply! You will have to take 2 specific courses at the start of your studies and pass them successfully in order to continue with your studies. That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

SCHOLARSHIP PROGRAMME

Start your online degree with our Scholarship Programme and receive a scholarship up to 67%!

Start in our Scholarship Programme as a participant with immediate access to 50% of your courses. You can do this by taking our Entrance Examination which will be included in your course as part of the Scholarship Programme. Once you have handed in all admission documents and the courses are completed, you can go on to finish your degree.

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



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