

# Study Software Engineering, MSc at UE Innovation Hub

a new Berlin-Potsdam campus  
for digital pioneers of tomorrow

# Why study at UE Innovation Hub?



## Future of education

At UE Innovation Hub we focus on future technology and educate the leaders of tomorrow in a newly designed institution that enables you to learn in the most up-to-date educational environment.



## Highly skilled lecturers

Our lecturers at UE Innovation Hub are thought leaders and highly skilled professionals with years of industry experience that you will benefit from.



## Service & Guidance

We support you in reaching your career ambitions and provide key networking opportunities. Our UE Career Center helps you finding an internship, part-time student work or a career in your chosen field.



## Interdisciplinary programmes

We believe the future is a combination of tech, data & design. Our programmes at UE Innovation Hub offer a unique module mix that will be necessary to succeed in tomorrow's job market.



## Diverse atmosphere

Benefit from diverse network of students and lecturers at UE Innovation Hub. Our English taught programmes attract students from around the world. Explore Potsdam and Berlin with your fellow students.



## Industry integrated

All our master's programmes are structured so that at least one module will be held in collaboration with a corporate partner. This will help you to gain valuable industry knowledge.



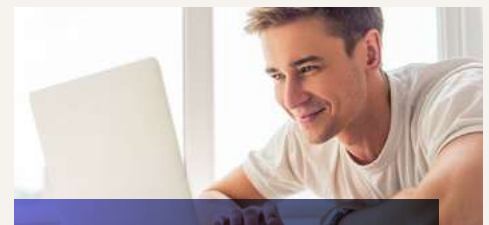
## Potsdam - the science hot spot

Potsdam offers the highest density of scientists in Germany. Our campus is next to incubators such as SAP innovation center where over 200 people research AI and Blockchain technologies.



## Study guarantee

We guarantee that you can start your studies online and continue on campus once COVID-19 government guidelines allow.



## Innovative learning

You decide how you wish to learn. Either on campus, online / hybrid or via VR-teaching. Whatever your chosen teaching method, you will be learning the most up-to-date industry skills.

# Your career starts with **Software Engineering, MSc**



## Why study this programme?

In this Software Engineering master's programme, students not only get to know current challenges and solutions in software design and architecture, but they are also enabled to develop solutions and learn the new trends in pattern recognition, vehicular technologies. In addition, students will be able to build software, design and implement smart software and use the benefits of cloud computing and machine learning.

Our goal is to provide master's graduates with the best possible education to kick-start a career in software engineering in any industry.

## Your career prospects

Software Developer | Application Developer | AI  
Software Developer | Technical Consultant | Technical  
Architect | Application Architect | Agile Project  
Manager | Smart Game Software Developer |  
User Devices Integration

Degree:

**Master of Science (MSc)**

Duration, Credits:

**4 Semesters, 120 ECTS**

**3 Semesters, 90 ECTS**

**2 Semesters, 60 ECTS**

Start of studies:

**Winter Semester - September**

**Summer Semester - March**

Teaching language:

**English**

International offers:

**Study abroad**

Locations:

**Berlin - Potsdam UE Innovation Hub**

Admission limitations:

**Proof of Academic and / or vocational  
experience in Computer Science  
gained (3 years min.)**

# Modules

## Software Engineering, MSc

1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	3 <sup>rd</sup> Semester	4 <sup>th</sup> Semester
<b>Advanced Software Design</b> <ul style="list-style-type: none"> <li>• system development</li> <li>• OOP modelling language</li> <li>• domain driven design</li> <li>• micro services design</li> </ul>	<b>Cloud Computing</b> <ul style="list-style-type: none"> <li>• cloud infrastructure &amp; technologies</li> <li>• Amazon web services, Windows Azure, Google app engine</li> <li>• build applications in the cloud</li> </ul>	<b>Capstone Project</b> individual project / industry-infused project / professional experience / study abroad / research project / group project / student exchange project / certificate etc.	<b>Thesis &amp; Colloquium</b>
<b>Pattern Recognition</b> <ul style="list-style-type: none"> <li>• image, speech, recognition</li> <li>• speaker verification</li> <li>• object detection &amp; recognition</li> <li>• motion estimation</li> </ul>	<b>Machine Learning</b> <ul style="list-style-type: none"> <li>• artificial intelligence concepts</li> <li>• machine learning in business</li> <li>• supervised &amp; unsupervised learning</li> <li>• neural networks</li> </ul>		
<b>Decision Support Systems</b> <ul style="list-style-type: none"> <li>• smart decision making</li> <li>• effect of decision support system on management &amp; leadership</li> <li>• simulation &amp; optimization</li> </ul>	<b>Vehicular Technology</b> <ul style="list-style-type: none"> <li>• automated transport systems</li> <li>• single &amp; multiple vehicle control</li> <li>• sensor detection</li> <li>• autonomous vehicles systems</li> </ul>	<b>Advance Research Methodologies</b>	
<b>Software Optimization</b> <ul style="list-style-type: none"> <li>• IT security</li> <li>• software quality assurance</li> <li>• software testing</li> <li>• security management &amp; risk management</li> </ul>	<b>Multi Core Programming</b> <ul style="list-style-type: none"> <li>• multi core programming</li> <li>• shared &amp; distributed memory management</li> <li>• threads control, &amp; multi management</li> <li>• performance optimization</li> </ul>	<b>Speculative Futures</b>	
<b>Entrepreneurial Thinking &amp; Digital Models</b>	<b>Comparative Cultural Studies</b>	<b>Business Coaching</b>	
<b>Contemporary Leadership / Culture</b>	<b>Interdisciplinary Elective</b> (pick any module from any other PG program except yours)		

Specialized Modules
Faculty-wide Modules
University-wide Modules
Another UE Faculty's Module

**Please Note: Modules for Curriculas with 60, 90, 120 ECTS differ. Please talk to your sales advisor for further details.**

## Your University – Your Partner!

The University of Europe for Applied Sciences (UE) is a state-approved private university that educates the designers and decision makers of tomorrow in the fields of business, psychology, media and communication, sport and event management and art and design.

With campuses in Iserlohn, Berlin and Hamburg, and new Innovation hub in Potsdam, UE offers undergraduate and postgraduate programmes tailored to the requirements of the job market 4.0.

Apply now at [www.ue-germany.com/innovation-hub](http://www.ue-germany.com/innovation-hub)

## Contact

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