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MASTER (M.SC.) COMPUTER SCIENCE

Computer Science is at the centre of our daily lives, transforming the way we live, work, travel, and much more. Developments in this area are rapidly changing many industries and if you become an expert in computer science, you could start an exciting career in a field of your choosing. Many people enjoy the interaction between computer science and the human experience, so use their degree to gain great positions in companies at the forefront of technological advancements. Whether mobility, medicine, design, or communications, with this degree, you can become a central key in creating and developing new systems and tech for a better, faster, more efficient world. In IU's Master in Computer Science, you continue your journey with a focus on data science, cyber security, and artificial intelligence and elective modules of your choosing. This will give you all the skills you need to get started in the international job market and in a career that speaks to your interests.

Degree
Master of Science (M.Sc.)

Study start
On campus Berlin: Each January, April, July or October
On campus Bad Honnef: Last intake April 2022

Study model available
Online, or On Campus

Duration
Online: 24, 36, 48 months
On Campus: 24 months

Credits
120 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 €98 per month
On Campus: From €649 per month

Study Content

1. PRESENCE TIMEFRAME	2. PRESENCE TIMEFRAME	MODULE TITLE	SEMESTER	CREDITS (ECTS)	TEST TYPE
			1		
Oct/Nov/Dec	Apr/May/Jun	Advanced Mathematics		5 ECTS	E
Oct/Nov/Dec		Algorithmics		5 ECTS	E
Oct/Nov/Dec		Cyber Security and Data Protection		5 ECTS	OA
Jan/Feb/Mar		Seminar: Computer Science and Society		5 ECTS	WARE
Jan/Feb/Mar		Artificial Intelligence		5 ECTS	E
Jan/Feb/Mar		Advanced Statistics		5 ECTS	WB
			2		
Apr/May/Jun		Data Science		5 ECTS	E
Apr/May/Jun		Big Data Technologies		5 ECTS	OA
Apr/May/Jun		Programming with Python		5 ECTS	WAWA
Jun/Jul/Aug		Software Engineering: Software Processes		5 ECTS	OA
Jun/Jul/Aug		Project: Software Engineering		5 ECTS	PO
Jun/Jul/Aug		Networks and Distributed Systems		5 ECTS	E
			3		
Oct/Nov/Dec	Apr/May/Jun	Seminar: Current Topics in Computer Science		5 ECTS	WARE
Oct/Nov/Dec	Apr/May/Jun	Project: Computer Science Project		5 ECTS	PO
Online		Electives A & B		20 ECTS	
			4		
Online		Master Thesis		30 ECTS	WAMT & PC

E = Exam, OA = Oral assignment, PC = Presentation: Colloquium, PO = Portfolio, WB = 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

CHOOSE YOUR ELECTIVES

You'll have the chance to choose electives in subjects you're interested in. These will amount to 20 ECTS of your overall degree.

Choose one specialisation from the Electives A programmes:
– Advanced Cyber Security and Cryptology
– Blockchain and Quantum Computing
– IT Governance and Service Management
– UI/UX Expert

Choose one specialisation from the Electives B programmes:
– Business Analyst
– Data Engineer
– Machine Learning and Deep Learning
– Technical Project Lead
– Use Case Identification and Evaluation for Analytical Applications

WHAT YOU'LL LEARN

– Jump into software engineering and build your knowledge of the mathematical and statistical basics.
– Gain skills in data science and artificial intelligence and deal systematically with the design, evaluation, and use of algorithms.
– Dive into cyber security and data protection and look at the influence of your work on society—discussing current topics in Computer Science and analysing network systems.

CAREER

Private sector, public service or freelance: Computer scientists are in a very high demand in all branches of industry, including finance, automotive, commerce and many more. Our Master of Computer Science is a clear boost for your career and will pave many ways to a successful entry into the job market.