

# CURRICULUM M.SC. COMPUTER SCIENCE, 120 ECTS, PART-TIME (36 MONTHS)

Semester	Module	Course Code	Course Name	ECTS	
1. Semester 20 ECTS	Programming with Python	DLMDSPWP01	Programming with Python	5	WAWA
	Software Engineering: Software Processes	DLMCSSESP01	Software Engineering: Software Processes	5	OA
	Advanced Mathematics	DLMDSAM01	Advanced Mathematics	5	E
	Advanced Statistics	DLMDASAS01	Advanced Statistics	5	WB
2. Semester 20 ECTS	Data Science	DLMBDSA01	Data Science	5	E
	Project: Software Engineering	DLMCSPSE01	Project: Software Engineering	5	P
	Algorithmics	DLMCSA01	Algorithmics	5	E
	Cyber Security and Data Protection	DLMCSITSDP01	Cyber Security and Data Protection	5	OA
3. Semester 15 ECTS	Seminar: Computer Science and Society	DLMCSSCSAS01	Seminar: Computer Science and Society	5	WARE
	Artificial Intelligence	DLMAIAI01	Artificial Intelligence	5	E
	Big Data Technologies	DLMDSDT01	Big Data Technologies	5	OA
4. Semester 15 ECTS	Project: Computer Science Project	DLMCSPSP01	Project: Computer Science Project	5	P
	Seminar: Current Topics in Computer Science	DLMCSSCTCS01	Seminar: Current Topics in Computer Science	5	WARE
	Networks and Distributed Systems	DLMCSNDS01	Networks and Distributed Systems	5	E
5. Semester 20 ECTS	ELECTIVE MODULE I **		e.g. Advanced Cyber Security and Cryptology	10	
	ELECTIVE MODULE II **		e.g. Machine Learning and Deep Learning	10	
6. Semester 30 ECTS	Master Thesis	MMTHE01	Master Thesis	27	WAT
		MMTHE02	Colloquium	3	PC
<b>TOTAL 120 ECTS</b>	<b>GOAL: In order to stay on schedule, you should finish modules of about 20 Credit Points per semester!</b>				

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A module with two courses consists of an introduction and a consolidation. In order to successfully complete a module, you must successfully pass both the introduction and the consolidation of the module within the framework of a module examination.

\* All the modules that have been unlocked for the Online Exams can be found in CARE.

**NOTE:**  
If the result of the recognition exam is still pending, you should not choose any courses that you have applied for.

<b>E</b>	Exam (monthly at study centres or anytime via the online exam*)
<b>OA</b>	Oral Assignment
<b>P</b>	Portfolio
<b>PC</b>	Presentation: Colloquium
<b>WARI</b>	Written Assessment: Research Essay
<b>WAT</b>	Written Assessment: Thesis
<b>WAW</b>	Written Assessment: Written Assignment
<b>WB</b>	Workbook

**\*\* Electives  
- Choose two modules**

**Elective Module I:**

- Advanced Cyber Security and Cryptology
- Blockchain and Quantum Computing
- IT Governance and Service Management
- UI/UX Expert

**Elective Module II:**

- Data Engineer
- Business Analyst
- Technical Project Lead
- Machine Learning and Deep Learning
- Use Case Identification and Evaluation for Analytical Applications