Study and Examination Plan

MSc Degree in Computer Science and Software Engineering Matriculation Fall 2022							
Module Code	**Program-Specific Modules**	**Type**	**Assessment**	**Period[1]**	**Status[2]**	**Semester**	**CP**
Semester 1							**25**
	CORE modules						**15**
MCSSE-SE-01	**Module: Software Construction, Software Architecture and Software Engineering**				**m**	**1**	**5**
MCSSE-SE-01	Software Construction, Software Architecture and Software Engineering	Lecture	Portfolio	During semester			
MCSSE-SE-02	**Module: Quality Engineering**				**m**	**1**	**5**
MCSSE-SE-02	Quality Engineering	Lecture	Portfolio	During semester			
	Further CORE modules				**me**	**1**	**5**
	- students choose 1 module from those listed below						
	Capstone Project						**5**
MCSSE-CAP-01	**Module: Capstone Project 1**				**m**	**1**	**5**
MCSSE-CAP-01	Capstone Project 1	Project	Project	During semester			
	Management Modules						**5**
MCSSE-MGT-01	**Module: Agile Product Development & Design**				**m**	**1**	**5**
MCSSE-MGT-01	Agile Product Development & Design	Lecture	Presentation	Examination period			
	Leadership / Academic Skills Modules						**5**
MCSSE-LAS-01	**Module: Entrepreneurship & Intrapreneurship**				**m**	**1**	**2.5**
MCSSE-LAS-01	Entrepreneurship & Intrapreneurship	Lecture	Presentations	During semester			
MDE-CAR-01	**Module: Communication & Presentation Skills for Executives**				**m**	**1**	**2.5**
MDE-CAR-01	Communication & Presentation Skills for Executives	Seminar	Oral Presentation	During semester			
Semester 2							**30**
	CORE modules						**15**
MCSSE-SE-03	**Module: Architectural Strategy**				**m**	**2**	**5**
MCSSE-SE-03	Architectural Strategy	Lecture	Portfolio	Examination period			
	Further CORE modules				**me**	**2**	**10**
	- students choose 2 modules from those listed below						
	Capstone Project						**5**
MCSSE-CAP-02	**Module: Capstone Project 2**				**m**	**2**	**5**
MCSSE-CAP-02	Capstone Project 2	Project	Project	During semester			
	Management Modules						**5**
MCSSE-MGT-02	**Module: Product Innovation & Marketing**				**m**	**2**	**5**
MCSSE-MGT-02	Product Innovation & Marketing	Lecture	Presentation	During semester			
	Leadership / Academic Skills Modules						**5**
MCSSE-LAS-02	**Module: Organizational Behavior**				**m**	**2**	**2,5**
MCSSE-LAS-02	Organizational Behavior	Lecture	Presentations	During semester			
MDE-CAR-02	**Module: Academic Writing Skills / Intercultural Training**				**m**	**2**	**2.5**
MDE-CAR-02	Academic Writing Skills / Intercultural Training	Seminar	Term Paper	Examination period			

Semester 3							**30**
	CORE modules						**15**
	Further CORE modules				**me**	**3**	**15**
	- students choose 3 modules from those listed below. One CORE module can be replaced by the Research Project module.						
	Capstone Project						**5**
MCSSE-CAP-03	**Module: Capstone Project 3**				**m**	**3**	**5**
MCSSE-CAP-03	Capstone Project 3	Project	Project	During semester			
	Management Modules						**5**
MCSSE-MGT-03	**Module: Transformational Change Management**				**m**	**3**	**5**
MCSSE-MGT-03	Transformational Change Management	Lecture	Presentation	During semester			
	Leadership / Academic Skills Modules				**m**		**5**
MCSSE-LAS-03	**Module: Agile Leadership and Strategic Management**				**m**	**3**	**2,5**
MCSSE-LAS-03	Agile Leadership and Strategic Management	Lecture	Presentations	During semester			
MCSSE-LAS-04	**Module: Customer-centric Mindset and Agile Delivery Management**				**m**	**3**	**2,5**
MCSSE-LAS-04	Customer-centric Mindset and Agile Delivery Management	Lecture	Presentations	During semester			
Semester 4							**30**
	Master Thesis						**30**
MCSSE-THE-01	**Module: Master Thesis MSc CSSE**				**m**	**4**	**30**
MCSSE-THE-01	Master Thesis	Thesis					
Total CP							**120**

[1] Each lecture period lasts 14 semester weeks and is followed by reading and examination days. Written examinations are centrally scheduled during weeks 15 and 16. For all other assessment types, the timeframes indicated in the above table stipulate the period during which module work has to be handed in or presented. Specific information on dates of topic announcement as well as submission deadlines is communicated in the syllabus which is made available to the students at the beginning of each semester. Academic dates are published in the university-wide Academic Calendar (see http://www.jacobs-university.de/academic-calendar).

[2] m = mandatory, me = mandatory elective

Further CORE modules							
Software Engineering							
MCSSE-SE-04	**Further Core Module: Advances in Software Engineering**				**me**	**3**	**5**
MCSSE-SE-04-A	Advances in Software Engineering	Lecture	Written examination	During semester			2.5
MCSSE-SE-04-B	Advances in Software Engineering - Lab	Lab	Project	During semester			2.5
MDE-CS-02	**Further Core Module: Parallel and Distributed Computing**				**me**	**1 or 3**	**5**
MDE-CS-02	Parallel and Distributed Computing	Lecture	Written examination	Examination Period			
MDE-CS-04	**Further Core Module: Advanced Databases**				**me**	**2**	**5**
MDE-CS-04-A	Advanced Databases	Lecture	Written examination	Examination Period			2.5
MDE-CS-04-B	Advanced Databases Lab	Lab	Lab Report	During semester			2.5
Cybersecurity Each student must choose at least 5 ECTS from this area. In order to specialize at least 20 ECTS must be chosen including all main content modules.							
MCSSE-CYB-01	**Main content: Cryptography**				**me**	**1**	**5**
MCSSE-CYB-01	Cryptography	Lecture	Written examination	Examination Period			
MCSSE-CYB-02	**Main content: System Security**				**me**	**2**	**5**
MCSSE-CYB-02	System Security	Lecture	Written examination	Examination Period			
MCSSE-CYB-03	**Main content: Network Security**				**me**	**3**	**5**
MCSSE-CYB-03	Network Security	Lecture	Written examination	Examination Period			
MDSSB-SOCB-01	**Further Core Module: Cybercriminology**				**me**	**3**	**5**
MDSSB-SOCB-01	Cybercriminology	Seminar	Term Paper	Examination Period			
Artificial Intelligence Each student must choose at least 5 ECTS from this area. In order to specialize at least 20 ECTS must be chosen including all main content modules							
MCSSE-AI-01	**Main content: Deep Learning**				**me**	**1 or 3**	**5**
MCSSE-AI-01	Deep Learning	Lecture	Written examination	Examination Period			
MCSSE-AI-02	**Main content: Intelligent Autonomous Systems**				**me**	**1 or 3**	**5**
MCSSE-AI-02	Intelligent Autonomous Systems	Lecture	Written examination	Examination Period			
MCSSE-AI-03	**Main content: Symbolic Artificial Intelligence**				**me**	**2**	**5**
MCSSE-AI-03	Symbolic Artificial Intelligence	Lecture	Written examination	Examination Period			
MDSSB-MET-02	**Further Core Module: Text Analysis and Natural Language Processing**				**me**	**2**	**5**
MDSSB-MET-02	Text Analysis and Natural Language Processing	Seminar/Lab	Project Report	Examination Period			
MDE-CO-02	**Further Core Module: Data Analytics**				**me**	**1**	**5**
MCDE-CO-02	Data Analytics	Lecture	Project Report	Examination Period			
MDE-CO-04	**Further Core Module: Machine Learning**				**me**	**2**	**5**
MDE-CO-04	Machine Learning	Lecture	Written examination	Examination Period			
Breakthrough modules							
MCSSE-BA-01	**Quantum Informatics**				**me**	**tbc**	**5**
MCSSE-BA-01-A	Quantum Informatics - Lecture	Lecture	Written examination	Examination Period			2.5
MCSSE-BA-01-B	Quantum Informatics - Lab	Lab	Portfolio	During the semester			2.5
	Research Project						**5**
MCSSE-RP-01	**Module: Research Project**				**me**	**3**	**5**
MCSSE-RP-01	Research Project	Project	Project Report	Examination period			