

**CORSO DI LAUREA MAGISTRALE IN SOFTWARE PER I SISTEMI INFORMATIVI**  
**MASTER IN SOFTWARE ENGINEERING FÜR INFORMATIONSSYSTEME**  
**MASTER OF SCIENCE IN SOFTWARE ENGINEERING FOR INFORMATION SYSTEMS**

**Piano di studio per anno e semestre – Coorte 2021/22**

**Studienplan nach Studienjahr und Semester – Kohorte 2021/22**

**Study Plan per Study Year and Semester – Cohort 2021/22**

**Primo anno / Erstes Jahr / First Year**

<b>1<sup>st</sup> Semester</b>		
<b>Course</b>	<b>CP</b>	<b>Exam</b>
<b>Specialization Topics</b> Programming and Visualization for Data Science M1: Data Visualization and Exploration M2: Programming for Data Science	12	Si/Ja
<b>Foundations in Software Engineering</b> Contemporary Software Development	6	Si/Ja
<b>Foundations in Software Engineering</b> Advanced Software Design Techniques	6	Si/Ja
<b>Specialization Topics</b> Alternative from Catalogue (see Catalogues at the end)	6	Si/Ja
	<b>30</b>	

<b>2<sup>nd</sup> Semester</b>		
<b>Course</b>	<b>CP</b>	<b>Exam</b>
<b>Foundations in Software Engineering</b> Verification and Reliability for Dependable Systems	6	Si/Ja
<b>Advanced Topics in Software / Systems Engineering</b> <i>Systems design and implementation</i> M1: Embedded Systems Design and Implementation M2: Extended Reality: Augmented, Virtual and Mixed Reality	12	Si/Ja
<b>Advanced Topics in Software / Systems Engineering</b> Software and Systems Security	6	Si/Ja
<b>Advanced Topics in Software / Systems Engineering</b> Cloud Computing and Distributed Systems	6	Si/Ja
	<b>30</b>	

**Secondo anno / Zweites Jahr / Second Year**

<b>1<sup>st</sup> Semester</b>		
<b>Course</b>	<b>CP</b>	<b>Exam</b>
<b>Software / Systems Engineering Research</b> Research Methods and Technology Transfer	6	Si/Ja
Free Choice*	12	**
Internship	6	Idoneità/Eignung/ Pass or fail
	<b>24</b>	

<b>2nd Semester</b>		
<b>Course</b>	<b>CP</b>	<b>Exam</b>
<b>Advanced Topics in Software / Systems Engineering</b> Alternatives from Catalogue	6	Si/Ja
Thesis	30	Esame finale Abschlussprüfung Graduation
	<b>36</b>	

\* lo/la studente può liberamente anticipare o posticipare i crediti Free Choice /  
der/die Studierende kann die Free-Choice-Lehrveranstaltungen frei vorverlegen oder verschieben /  
The student can move forward or backward Free choice credits

\*\*lo/la studente può scegliere insegnamenti che prevedono sia esami di profitto che prove di idoneità /  
der/die Studierende kann Lehrveranstaltungen wählen, die Leistungsprüfungen wie auch Eignungstests  
vorsehen /  
the student can choose courses that have an exam with a grade or a pass and fail score

## Catalogo /Katalog /Catalogue

### Specialization Topics

Primo semestre / Erstes Semester / First Semester

Course	CP	Exam
Microcontroller Programming	6	Si/Ja
Parallel computing	6	Si/Ja
Agile Software Development	6	Si/Ja
Design and Development of Business Software	6	Si/Ja
Information retrieval	6	Si/Ja

Selected topics: Infobytes (Topics can change) <ul style="list-style-type: none"><li>• Basic electronics and signal processing</li><li>• Introduction to robotics</li><li>• Digitalization of production processes – Industry 4.0</li></ul>	6	Si/Ja
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## Catalogo /Katalog /Catalogue

### Advanced Topics in Software / Systems Engineering

Quarto semestre/ Viertes Semester / Forth Semester

Course	CP	Exam
Software Maintenance and Evolution	6	Si/Ja
Robotics	6	Si/Ja
Software for Technical Drawing	6	Si/Ja
Mobile Robotics	6	Si/Ja
Programmable Logic Controllers	6	Si/Ja
DevOps	6	Si/Ja
Entrepreneurial Software Engineering	6	Si/Ja