

**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 2019/20**

**Studienplan nach Studienjahr und Semester – Kohorte 2019/20**

**Study Plan per Study Year and Semester – Cohort 2019/20**

**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 Analytics M1: Data Visualization and Exploration M2: Programming for Data Analytics	12	Si/Ja
<b>Foundations in Software Engineering</b> Contemporary Software Development	6	Si/Ja
<b>Foundations in Software Engineering</b> Requirements and Design for Dependable Systems	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: Design and Development of Business Software	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	Idoneità/Eignung/ Pass or fail
Thesis	30	Esame finale Abschlussprüfung Graduation
	<b>36</b>	

\* Io/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

\*\*Io/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
Lean Start-Up and Entrepreneurship	6	Si/Ja
C programming for microelectronics	6	Si/Ja
Agile Software Development	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>• Introduction to computer vision</li></ul>	6	Si/Ja
---	---	-------

## 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
Mechatronics and Robotics	6	Si/Ja
Computer Aided Design (CAD) fundamental	6	Si/Ja
Mobile Robotics	6	Si/Ja
Programmable Controllers for Industrial Automation	6	Si/Ja
DevOps	6	Si/Ja