



Academic year 2026-2027

Master in Software Engineering with AI (MAISE)

The study plan and course descriptions provide an overview of the programme's structure and content, and may be subject to changes. In case a study programme offers multiple specialisations or streams, these are presented consecutively within the same document.

Study Plan

1st semester (SA 2026-2027)

Core courses (24 ECTS)	Lecturers	Tags	ECTS
Data Design & Modeling	Brambilla		6
Design 101	Lanza		6
Engineering of Domain Specific Languages	Mocci		3
Programming Styles	Hauswirth		3
Software Design & Modeling	Furia		6
Elective courses (6 ECTS)	Lecturers	Tags	ECTS
Engineering AI Systems	Miller		6
High-Performance Computing	Schenk, Eftekhari		6

2nd semester (SP 2027)

Core courses (24 ECTS)	Lecturers	Tags	ECTS
Machine Learning for Software Engineering	Tonella		6
Software Analysis	Furia		6
Software Architecture	Pautasso		6
Visual Analytics	D'Ambros		6
Elective courses (6 ECTS)	Lecturers	Tags	ECTS
Business Process Modeling, Management and Mining	Pautasso		3
Computer Vision	Engelmann		6
Robotics	Giusti		6
Security Aspects of Machine Learning	Regazzoni		3
Software Quality & Testing	Pezzè		6

3rd semester (SA 2027-2028)

Core courses (24 ECTS)	Lecturers	Tags	ECTS
AI-Based Software Testing	Tonella		3
Neural Code Analysis	Bavota		6
Software & Data Engineering Seminar	Bavota, D'Ambros, Furia, Hauswirth, Miller, Lanza, Pautasso, Tonella		6

<u>Software Performance</u>	Hauswirth		6
Testing 4 AI	Tonella		3
Elective courses (6 ECTS)	Lecturers	Tags	ECTS
<u>Engineering AI Systems</u>	Miller		6
<u>Game Design & Development</u>	Lanza		6
<u>Generative AI</u>	Engelmann		6
<u>High-Performance Computing</u>	Schenk, Eftekhari		6
<u>Mobile and Wearable Computing</u>	Santini		6
4th semester (SP 2028)			
Master Thesis			30