



Academic year 2026-2027

Master in Artificial Intelligence (MAI)

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 (18 ECTS)	Lecturers	Tags	ECTS
Algorithms & Complexity	Papadopoulou		6
Deep Learning Lab	Vercesi		3
Machine Learning (MSc)	Wand		6
Numerical Algorithms	Hormann		3
Competitive and Market Intelligence	Martignoni	Founders Option	3
Business Plans and Business Models	Martignoni	Founders Option	3
Elective courses (12 ECTS)	Lecturers	Tags	ECTS
AI-Based Software Testing	Tonella		3
Bioinformatics	Limongelli		6
Computer Aided Verification	Sharygina		6
Computer Graphics	Didyk		6
Edge Computing in the IoT	Ferrante		6
Engineering AI Systems	Miller		6
High-Performance Computing	Schenk, Eftekhari		6
Introduction to Data Science (MSc)	Wit		6
Programming Styles	Hauswirth		3
User Experience Design	Landoni, Langheinrich		6

2nd semester (SP 2027)

Core courses (30 ECTS)	Lecturers	Tags	ECTS
Computer Vision	Engelmann		6
Data Analytics	Bucur-Cosma		6
Robotics	Giusti		6
Stochastic Methods	Sulem		6
Founders I	Gruber	Founders Option	6
Elective courses (6 ECTS)	Lecturers	Tags	ECTS
Advanced Graphics for Visual Computing	Didyk		6
Advanced Networking	Carzaniga		6

<u>Advanced Topics in NLP</u>	van der Plas	3
<u>Business Intelligence and Applications</u>	Martinenghi	6
<u>Business Process Modeling, Management and Mining</u>	Pautasso	3
<u>Computer Architectures and Logic Design</u>	Pozzi	6
<u>Effective High-Performance Computing & Data Analytics</u>	Schenk	6
<u>Entrepreneurship: Theory and Practice</u>	Beck	3
<u>Geometric Algorithms</u>	Papadopoulou	6
<u>Graphical Models</u>	Wit	6
<u>Image and Video Processing</u>	Didyk	6
<u>Information & Physics</u>	Wolf	3
<u>Philosophy and Artificial Intelligence</u>	Smith, Landgrebe	6
<u>Quantum Computing</u>	Wolf	6
<u>Security Aspects of Machine Learning</u>	Regazzoni	3

3rd semester (SA 2027-2028)

Core courses (9 ECTS)	Lecturers	Tags	ECTS
<u>Graph Deep Learning</u>	Alippi		3
<u>Natural Language Processing</u>	van der Plas, Carman		6
<u>Founders II</u>	Gruber	Founders Option	12
Elective courses (12 ECTS)	Lecturers	Tags	ECTS
<u>AI-Based Software Testing</u>	Tonella		3
<u>Bioinformatics</u>	Limongelli		6
<u>Business Plans and Business Models</u>	Martignoni		3
<u>Computer Aided Verification</u>	Sharygina		6
<u>Computer Graphics</u>	Didyk		6
<u>Edge Computing in the IoT</u>	Ferrante		6
<u>Engineering AI Systems</u>	Miller		6
<u>Generative AI</u>	Engelmann		6
<u>High-Performance Computing</u>	Schenk, Eftekhari		6
<u>Introduction to Data Science (MSc)</u>	Wit		6
<u>Mobile and Wearable Computing</u>	Santini		6
<u>Programming Styles</u>	Hauswirth		3
<u>User Experience Design</u>	Landoni, Langheinrich		6
Master thesis			9

4th semester (SP 2028)

Core courses (3 ECTS)	Lecturers	Tags	ECTS
<u>Advanced Topics in Machine Learning</u>	Alippi		3
<u>Founders III</u>	Gruber	Founders Option	12
Elective courses (6 ECTS)	Lecturers	Tags	ECTS
<u>Advanced Graphics for Visual Computing</u>	Didyk		6
<u>Advanced Networking</u>	Carzaniga		6
<u>Advanced Topics in NLP</u>	van der Plas		3
<u>Business Intelligence and Applications</u>	Martinenghi		6
<u>Business Process Modeling, Management and Mining</u>	Pautasso		3
<u>Computer Architectures and Logic Design</u>	Pozzi		6
<u>Effective High-Performance Computing & Data Analytics</u>	Schenk		6
<u>Entrepreneurship: Theory and Practice</u>	Beck		3
<u>Geometric Algorithms</u>	Papadopoulou		6
<u>Graphical Models</u>	Wit		6
<u>Image and Video Processing</u>	Didyk		6
<u>Information & Physics</u>	Wolf		3
<u>Philosophy and Artificial Intelligence</u>	Smith, Landgrebe		6
<u>Quantum Computing</u>	Wolf		6
<u>Security Aspects of Machine Learning</u>	Regazzoni		3
Master Thesis			21

Students have the possibility to obtain a major/minor **Minor in Entrepreneurship (no thesis required)** upon completion of **36 ECTS** of **"Founders Option"** tagged courses or activities.