

Cours	Enseignant-e-s	🌟 Automne	🌱 Printemps	Examen	Crédits	
Master of Science in Computer Science						TOTAL 90
Teaching Units						TOTAL 60
General						TOTAL
Modeling and Scaling of Generative AI Systems	Y. CHEN	2ph+2ph		oral	5	
User Centered Design (University of Fribourg)	F. Egger	2ph+1ph		écrit	5	
Multimodal User Interfaces	D. Lalanne		2ph+1ph	écrit	5	
Fabrication and Prototyping in the LearningLab	J. Nembrini S. Ruffieux	2ph+1ph		oral	5	
Distributed Software Systems						TOTAL
Advanced Networking and Future Internet	T. Braun		2ph+1ph	écrit	5	
Distributed Algorithms	C. Cachin	2ph+1ph		oral	5	
Network Security	T. Braun	2ph+1ph		écrit	5	
Software Product Lines	T. Kehrer	2ph+1ph		oral	5	
Compiler Construction	T. Kehrer		2ph+1ph	oral	5	
Concurrency: Multi-core Programming and Data Processing	P. FELBER		2ph+2ph	écrit	5	
Advanced Software Engineering (University of Fribourg)	M. Khayati J. Pasquier	2ph+1ph		écrit	5	
Systems Verification	U. Ultes-Nitsche		2ph+1ph	oral	5	
Scientific Reading in Computer Networks	T. Braun	1pg		controle continu	5	
Scientific Writing in Computer Networks	T. Braun	1pg		controle continu	5	
Seminar Communication and Distributed Systems	T. Braun	2ph		controle continu	5	
Seminar Software Engineering	T. Kehrer	2ph		controle continu	5	
Scientific Reading in Computer Networks	T. Braun		1pg	controle continu	5	
Scientific Writing in Computer Networks	T. Braun		1pg	controle continu	5	
Seminar Communication and Distributed Systems	T. Braun	2ph		controle continu	5	
Seminar Software Engineering	T. Kehrer	2ph		controle continu	5	
Seminar Hot Topics in Operating Systems	P. FELBER V. Schiavoni	1pg		controle continu	5	
Seminar Distributed Learning Systems	Y. CHEN	1pg		controle continu	5	
Seminar Foundations of Dependable Systems I	U. Ultes-Nitsche	1pg		controle continu	5	
Seminar Foundations of Dependable Systems II	U. Ultes-Nitsche		1pg	controle continu	5	
Security						TOTAL
Cryptography	C. Cachin		2ph+1ph	oral	5	
Security: Advanced Topics	H. SANGLARD	2ph+2ph		oral	5	
Seminar Cryptography and Data Security	C. Cachin	2ph		controle continu	5	
Seminar Cryptography and Data Security	C. Cachin		2ph	controle continu	5	
Visual Computing						TOTAL
Computer Vision	P. Favaro	2ph+1ph		écrit	5	
Deep Learning	P. Favaro		2ph+1ph	écrit	5	
3D Geometry Processing	D. Bommes		2ph+1ph	écrit	5	
Applied Optimization	D. Bommes	2ph+1ph		écrit	5	
Graph Based Pattern Recognition	K. Riesen		2ph+1ph	écrit	5	
Design and Graphics Programming for Game Development (University of Fribourg)	M. Rigamonti		2ph+1ph	écrit	5	
Seminar Computer Graphics and Geometry Processing	D. Bommes	2ph		controle continu	5	
Seminar Machine Learning and Artificial Intelligence	P. Favaro	2ph		controle continu	5	
Seminar Applied Optimization	D. Bommes		2ph	controle continu	5	
Seminar Machine Learning and Artificial Intelligence	P. Favaro		2ph	controle continu	5	
Seminar Pattern Recognition	K. Riesen		2ph	controle continu	5	
Seminar Pattern Recognition	K. Riesen	2ph		controle continu	5	
Seminar Affective Computing for Empathic Behaviour Change	O. Abou Khaled D. Lalanne E. Mugellini	1pg		controle continu	5	
Seminar Chatbots and Conversational Agents	O. Abou Khaled P. Cudré-Mauroux E. Mugellini	1pg		controle continu	5	
Seminar Human-Computer Interaction I	D. Lalanne J. Nembrini	1pg		controle continu	5	
Seminar Explainable AI - Human-Computer Interaction meets Artificial Intelligence	O. Abou Khaled E. Mugellini		1pg	controle continu	5	
Seminar Human-Computer Interaction II	D. Lalanne J. Nembrini		1pg	controle continu	5	
Theory and Logic						TOTAL
Reinforcement Learning and Decision Making Under Uncertainty	C. DIMITRAKAKIS		2ph+2ph	écrit	5	
Machine Learning: Theory, Fairness and Privacy	C. DIMITRAKAKIS	2ph+2ph		écrit	5	
Automata on Infinite Structures	U. Ultes-Nitsche	2ph+1ph		oral	5	
Algorithm Design	C. Dallard		2ph+1ph	écrit	5	
Seminar Logic and Theoretical Computer Science	T. Studer	2ph		controle continu	5	
Seminar Advanced Topics in Reinforcement Learning and Decision Making	C. DIMITRAKAKIS	1pg		controle continu	5	
Information Systems and Decision Support						TOTAL
Design of Governance in Socio-technical Information Systems	A. SANDOZ		2ph+2ph	oral	5	
Mathematical Modeling and Linear Optimization	M. Pacheco	2ph+1ph		écrit	5	
Introduction to Recommender Systems	L. Terán		2ph+1ph	écrit	5	
Graph Theory and Applications	C. Dallard	2ph+1ph		écrit	5	
Fuzzy Sets and Systems II	E. Portmann		2ph+1ph	écrit	5	
Fuzzy Sets and Systems I	E. Portmann	2ph+1ph		écrit	5	
Seminar Life Engineering	E. Portmann	1pg		controle continu	5	
Seminar Urban Computing	E. Portmann	1pg		controle continu	5	

Seminar Life Engineering	E. Portmann	1pg	controle continu	5
Seminar Social Computing	E. Portmann	1pg	controle continu	5
Data Science				TOTAL
Distributed Deep Learning Systems	Y. CHEN	2ph+2ph	oral	5
Big Data Infrastructures	P. Cudré-Mauroux A. Lerner	2ph+1ph	écrit	5
Pattern Recognition	A. Fischer	2ph+1ph	écrit	5
Social Media Analytics	P. Cudré-Mauroux M. Khayati	2ph+1ph	écrit	5
Seminar Natural Language Processing	M. Stürmer	2ph	controle continu	5
Data Management Data Structures	A. Lerner	2ph+1ph	écrit	5
Seminar Data Science	M. Khayati A. Lerner	1pg	controle continu	5
Seminar Geometry and Topology in Deep Learning	B. Grossenbacher-Rieck	1pg	controle continu	5
Rattrapage				TOTAL 30
Structure de données et algorithmique	A. SANDOZ	2ph+2ph	controle continu	6
Algèbre linéaire	M. BENAÏM	4ph+3ph	écrit	9
Mathématiques discrètes et applications	B. LEPERS	2ph+2ph	écrit	6
Informatique générale : programmation I	P. FELBER	2ph+2ph	controle continu	6
Systèmes concurrents et distribués	P. FELBER	2ph+2ph	écrit	6
Informatique générale : programmation II	P. FELBER	2ph+2ph	controle continu	6
Intelligence artificielle	C. DIMITRAKAKIS	2ph+2ph	écrit	6
Operating Systems	V. Schiavoni	2ph+2ph	écrit	6
Langages et compilation	P. FELBER	2ph+2ph	écrit	6
Software Skills Lab	V. Schiavoni	4dj	controle continu	5