

Cours	Enseignant-e-s	🌟 Automne	🌱 Printemps	Examen	Crédits	
Master of Science in Computer Science						TOTAL 90
Teaching Units						TOTAL 60
General						TOTAL
Seminar Law and Computer Science: Distributed Trust in Finance	C. Cachin		1pg	contrôle continu	5	
User Centered Design (University of Fribourg)	D. Lalanne	2ph+1ph		écrit	5	
Multimodal User Interfaces	D. Lalanne		2ph+1ph	écrit	5	
Distributed Systems						TOTAL
Mobile Communications	T. Braun	2ph+1ph		écrit	5	
Distributed Algorithms	C. Cachin		2ph+1ph	oral	5	
Network Security	T. Braun		2ph+1ph	écrit	5	
Privacy and Data Security	C. Cachin	2ph+1ph		oral	5	
Security	H. SANGlard	2ph+2ph		oral	5	
Advanced Software Engineering (University of Fribourg)	J. Pasquier	2ph+1ph		écrit	5	
Verification of Cyber-physical Systems	U. Ultes-Nitsche		2ph+1ph	oral	5	
Scientific Reading in Computer Networks	T. Braun	1pg		contrôle continu	5	
Scientific Writing in Computer Networks	T. Braun	1pg		contrôle continu	5	
Seminar Communication and Distributed Systems	T. Braun	2ph		contrôle continu	5	
Seminar Cryptography and Data Security	C. Cachin	2ph		contrôle continu	5	
Scientific Reading in Computer Networks	T. Braun		1pg	contrôle continu	5	
Scientific Writing in Computer Networks	T. Braun		1pg	contrôle continu	5	
Seminar Communication and Distributed Systems	T. Braun		2ph	contrôle continu	5	
Seminar Cryptography and Data Security	C. Cachin		2ph	contrôle continu	5	
Seminar Foundations of Dependable Systems I	U. Ultes-Nitsche	1pg		contrôle continu	5	
Seminar Foundations of Dependable Systems II	U. Ultes-Nitsche		1pg	contrôle continu	5	
Advanced Software Engineering						TOTAL
Concurrency: State Models and Design Patterns	O. Nierstrasz	2ph+1ph		écrit	5	
Concurrency: Multi-core Programming and Data Processing	P. FELBER		2ph+2ph	écrit	5	
Seminar Software Composition	O. Nierstrasz	2ph		contrôle continu	5	
Seminar Software Engineering	T. Kehrer		2ph	contrôle continu	5	
Advanced Information Processing						TOTAL
Computer Vision	P. Favaro	2ph+1ph		écrit	5	
3D Geometry Processing	D. Bommes		2ph+1ph	écrit	5	
Applied Optimization	D. Bommes	2ph+1ph		écrit	5	
Machine learning and data mining	J. SAVOY	2ph+2ph		écrit	5	
Statistical Learning Methods with R	J. SAVOY		2ph+2ph	écrit	5	
Digital Humanities	J. SAVOY	2ph+2ph		écrit	5	
Pattern Recognition	A. Fischer		2ph+1ph	écrit	5	
Document Image Analysis	R. Ingold		2ph+1ph	oral	5	
Seminar Computer Graphics and Geometry Processing	D. Bommes	2ph		contrôle continu	5	
Seminar Machine Learning and Artificial Intelligence	P. Favaro	2ph		contrôle continu	5	
Seminar Applied Optimization	D. Bommes		2ph	contrôle continu	5	
Seminar Natural Language Processing and Reinforcement Learning	M. Stürmer	2ph		contrôle continu	5	
Seminar Natural Language Processing and Reinforcement Learning	M. Stürmer		2ph	contrôle continu	5	
Seminar Affective Computing for Empathic Behaviour Change	O. Abou Khaled D. Lalanne E. Mugellini	1pg		contrôle continu	5	
Seminar Chatbots and Conversational Agents	O. Abou Khaled P. Cudré-Mauroux E. Mugellini	1pg		contrôle continu	5	
Seminar Human-Computer Interaction I	D. Lalanne J. Nembrini	1pg		contrôle continu	5	
Seminar Learning Strategies for Neural Networks	R. Ingold	1pg		contrôle continu	5	
Seminar Explainable AI - Human-Computer Interaction meets Artificial Intelligence	O. Abou Khaled R. Ingold E. Mugellini		1pg	contrôle continu	5	
Seminar Human-Computer Interaction II	D. Lalanne		1pg	contrôle continu	5	
Logic						TOTAL
Automata on Infinite Structures	U. Ultes-Nitsche	2ph+1ph		oral	5	
Foundations and Tools for Processing Semi-structured Data	C. Vanoirbeek		2ph+1ph	écrit	5	
Seminar Advanced Algorithms	T. Studer	2ph		contrôle continu	5	
Seminar Logic and Theoretical Computer Science	T. Studer	2ph		contrôle continu	5	
Seminar Logic and Theoretical Computer Science	T. Studer		2ph	contrôle continu	5	
Information Systems and Decision Support						TOTAL
Design of Governance in Socio-technical Information Systems	A. SANDOZ		2ph+2ph	oral	5	
Introduction to Recommender Systems	L. Terán		2ph+1ph	écrit	5	
Graph Theory and Applications	D. Schindl	2ph+1ph		écrit	5	
Fuzzy Systems Modeling	E. Portmann		2ph+1ph	écrit	5	
Fuzzy Systems Engineering	E. Portmann	2ph+1ph		écrit	5	
Seminar Hands-On Recommender Systems	L. Terán	1pg		contrôle continu	5	
Seminar Human Smart Cities	E. Portmann	1pg		contrôle continu	5	
Seminar Computing with Words	E. Portmann		1pg	contrôle continu	5	
Data Science						TOTAL
Reinforcement Learning and Decision Making Under Uncertainty	C. DIMITRAKAKIS		2ph+2ph	écrit	5	
Big Data Infrastructures	P. Cudré-Mauroux A. Lerner	2ph+1ph		écrit	5	

Social Media Analytics	P. Cudré-Mauroux M. Khayati	2ph+1ph	écrit	5
Data Management Data Structures	A. Lerner	2ph+1ph	écrit	5
Seminar Advanced Topics in Learning and Decision Making	C. DIMITRAKAKIS	2ph	contrôle continu	5
Seminar Data Science	M. Khayati A. Lerner	1pg	contrôle continu	5
Rattrapage				TOTAL 30
Structure de données et algorithmique	A. SANDOZ	2ph+2ph	contrôle continu	6
Algèbre linéaire	M. BENAÏM	4ph+3ph	écrit	9
Mathématiques discrètes et applications	U. MARTINEZ PENAS	2ph+2ph	écrit	6
Informatique générale : programmation I	P. FELBER L. Leonini	2ph+2ph	contrôle continu	6
Informatique générale : programmation II	P. FELBER	2ph+2ph	contrôle continu	6
Intelligence artificielle	J. SAVOY	2ph+2ph	écrit	6
Operating Systems	V. Schiavoni	2ph+2ph	écrit	6
Langages et compilation	P. FELBER	2ph+2ph	oral	6
Software Skills Lab	V. Schiavoni	4dj	contrôle continu	5