

Cours	Enseignants	🌟 Automne	🌱 Printemps	Examen	Crédits	
Master of Science in Computer Science						TOTAL 90
Teaching Units						TOTAL 60
General						TOTAL
Interdisciplinary Computing	M. Courant	2ph+1ph		oral	5	
User Centered Design (University of Fribourg)	D. Lalanne A. Lisowska Masson	2ph+1ph		écrit	5	
Multimodal User Interfaces	D. Lalanne		2ph+1ph	écrit	5	
R&D Workshop	P. KROPF J. SAVOY		4ph	contrôle continu	10	
Seminar Interdisciplinary Issues in ICT	M. Courant	1pg		contrôle continu	5	
Seminar Interdisciplinary Issues in ICT	M. Courant		1pg	contrôle continu	5	
Distributed Systems						TOTAL
Mobile Communications	T. Braun	2ph+1ph		écrit	5	
Cryptography	C. Cachin	2ph+1ph		oral	5	
Distributed Algorithms	C. Cachin		2ph+1ph	oral	5	
Network Security	T. Braun		2ph+1ph	écrit	5	
Distributed Systems	P. KROPF V. Schiavoni	2ph+2ph		écrit	5	
Security	H. SANGLARD	2ph+2ph		oral	5	
Cloud Computing	P. FELBER L. Leonini	2ph+2ph		écrit	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 Secure Computation	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 Distributed Trust and Blockchains	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	M. Ghafari 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	
Advanced Information Processing						TOTAL
Computer Vision	P. Favaro	2ph+1ph		écrit	5	
Advanced Machine Learning	P. Favaro		2ph+1ph	écrit	5	
3D Geometry Processing	D. Bommes		2ph+1ph	écrit	5	
Applied Optimization	D. Bommes	2ph+1ph		écrit	5	
Natural language processing	J. SAVOY	2ph+2ph		écrit	5	
Machine learning and data mining	J. SAVOY	2ph+2ph		écrit	5	
Design and Graphics Programming for Game Development (University of Fribourg)	M. Rigamonti		2ph+1ph	écrit	5	
Pattern Recognition	A. Fischer		2ph+1ph	écrit	5	
Seminar Computer Graphics and Geometry Processing	D. Bommes	1pg		contrôle continu	5	
Seminar Machine Learning and Artificial Intelligence	P. Favaro	2ph		contrôle continu	5	
Seminar Computer Graphics and Geometry Processing	D. Bommes		1pg	contrôle continu	5	
Seminar Machine Learning and Artificial Intelligence	P. Favaro		2ph	contrôle continu	5	
Seminar Natural Language Processing	J. SAVOY	2ph		contrôle continu	5	
Seminar Building Data Visualization I	D. Lalanne J. Nembrini	1pg		contrôle continu	5	
Seminar Chatbots and Conversational Agents	O. Abou Khaled P. Cudré-Mauroux E. Mugellini	1pg		contrôle continu	5	
Seminar Building Data Visualization II	D. Lalanne J. Nembrini		1pg	contrôle continu	5	
Seminar Affective Computing for Empathic Behaviour Change	O. Abou Khaled D. Lalanne E. Mugellini	1pg		contrôle continu	5	
Seminar Explainable AI - Human-Computer Interaction meets Artificial Intelligence	O. Abou Khaled R. Ingold E. Mugellini		1pg	contrôle continu	5	
Logic						TOTAL
Modal Logic	T. Studer	2ph+1ph		écrit	5	
Automata on Infinite Structures	U. Ultes-Nitsche	2ph+1ph		oral	5	
Seminar Logic and Theoretical Computer Science	T. Strahm T. Studer	2ph		contrôle continu	5	
Seminar Logic and Theoretical Computer Science	T. Strahm T. Studer		2ph	contrôle continu	5	
Information Systems and Decision Support						TOTAL
E-gouvernement frameworks	A. SANDOZ		2ph+2ph	oral	5	
Advanced Mathematical Modeling and Optimization	R. Bürgy		2ph+1ph	écrit	5	
Introduction to Recommender Systems	L. Terán		2ph+1ph	oral	5	
Graph Theory and Applications	D. Schindl	2ph+1ph		écrit	5	
Fuzzy Modeling Methods	E. Portmann		2ph+1ph	écrit	5	
Seminar Human Smart Cities	E. Portmann	1pg		contrôle continu	5	
Seminar Computing with Words	E. Portmann		1pg	contrôle continu	5	

Data Science						TOTAL
Big Data Infrastructures	P. Cudré-Mauroux	2ph+1ph		écrit	5	
Social Media Analytics	P. Cudré-Mauroux M. Khayati		2ph+1ph	écrit	5	
Seminar Data Science	M. Khayati	1pg		controle continu	5	
Rattrapage						TOTAL 30
Structure de données et algorithmique	A. SANDOZ	2ph+2ph		controle continu	6	
Systèmes répartis	P. KROPF V. Schiavoni	2ph+2ph		écrit	6	
Algèbre linéaire	M. BENAÏM	4ph+3ph		écrit	9	
Mathématiques discrètes et applications	H. MERCIER	2ph+2ph		écrit	6	
Informatique générale : programmation I	P. FELBER	2ph+2ph		controle continu	6	
Informatique générale : programmation II	P. FELBER		2ph+2ph	controle 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	4dj	controle continu	5	