# FS - Master en informatique 2016-2017

| 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** | |
| Future User Interfaces (FUI): multimodal, plastic and natural | D. Lalanne | | 2ph+1ph | écrit | **5** | |
| R&D Workshop | P. KROPF H. MERCIER J. SAVOY | | 4ph | controle continu | **10** | |
| Seminar Interdisciplinary Issues in ICT | M. Courant | 1pg | | controle continu | **5** | |
| Seminar Interdisciplinary Issues in ICT | M. Courant | | 1pg | controle continu | **5** | |
| **Distributed Systems** | | | | | | **TOTAL** |
| Advanced Networking and Future Internet | T. Braun | 2ph+1ph | | écrit | **5** | |
| Distributed Systems | P. KROPF | 2ph+2ph | | écrit | **5** | |
| Security | H. SANGLARD | 2ph+2ph | | oral | **5** | |
| Concurrency: Multi-core Programming and Data Processing | P. FELBER | | 2ph+2ph | écrit | **5** | |
| Large-scale Distributed Systems | E. RIVIERE | 2ph+2ph | | écrit | **5** | |
| Cloud Computing | E. RIVIERE | | 2ph+2ph | écrit | **5** | |
| Applied Coding and Information Theory | H. MERCIER | | 2ph+2ph | controle continu | **5** | |
| Advanced Software Engineering (University of Fribourg) | J. Pasquier | 2ph+1ph | | oral | **5** | |
| Verification of Cyber-physical Systems | U. Ultes-Nitsche | 2ph+1ph | | oral | **5** | |
| Web Engineering | O. Abou Khaled P. FELBER E. Mugellini | 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** | |
| 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 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** | |
| **Advanced Software Engineering** | | | | | | **TOTAL** |
| Compiler Construction | O. Nierstrasz | | 2ph+1ph | écrit | **5** | |
| Software Modeling and Analysis | O. Nierstrasz | 2ph+1ph | | écrit | **5** | |
| Seminar Software Composition | O. Nierstrasz | 2ph | | controle continu | **5** | |
| Seminar Software Composition | O. Nierstrasz | | 2ph | controle continu | **5** | |
| **Advanced Information Processing** | | | | | | **TOTAL** |
| Computational Photography (University of Bern) | M. Zwicker | 2ph+1ph | | écrit | **5** | |
| Computer Vision | P. Favaro | 2ph+1ph | | écrit | **5** | |
| Advanced Machine Learning | P. Favaro | | 2ph+1ph | écrit | **5** | |
| Natural language processing | J. SAVOY | 2ph+2ph | | écrit | **5** | |
| Machine learning and data mining | J. SAVOY | 2ph+2ph | | écrit | **5** | |
| Statistical Learning Methods | J. SAVOY | | 2ph+2ph | écrit | **5** | |
| Design and Graphics Programming for Game Development (University of Fribourg) | M. Rigamonti | | 2ph+1ph | écrit | **5** | |
| Applications of Artificial Intelligence | M. Liwicki | 2ph+1ph | | oral | **5** | |
| Pattern Recognition | A. Fischer | | 2ph+1ph | écrit | **5** | |
| Seminar Computer Graphics | M. Zwicker | 2ph | | controle continu | **5** | |
| Seminar Computer Vision | P. Favaro | 2ph | | controle continu | **5** | |
| Seminar Computer Vision | P. Favaro | | 2ph | controle continu | **5** | |
| Seminar Natural Language Processing | J. SAVOY | 2ph | | controle continu | **5** | |
| Seminar Human Building Interaction | D. Lalanne J. Nembrini | 1pg | | controle continu | **5** | |
| Seminar Data Visualization | F. Evéquoz D. Lalanne | | 1pg | controle continu | **5** | |
| Seminar Scientific Communication in Document Image Analysis: Reading, Writing, and Presentation Skills | M. Liwicki | | 1pg | controle continu | **5** | |
| **Logic** | | | | | | **TOTAL** |
| Complexity Theory | T. Strahm | | 2ph+1ph | écrit | **5** | |
| Justification Logic | T. Studer | 2ph+1ph | | oral | **5** | |
| Working Group Operations, Sets, and Types | G. Jäger | 2ph+1ph | | oral | **5** | |
| Working Group Operations, Sets, and Types | G. Jäger | | 2ph+1ph | oral | **5** | |
| Probabilistic Algorithms (6 ECTS) | I. COTOFREI | 4ph | | écrit, Note d'enseignement | **5** | |
| Automata on Infinite Structures | U. Ultes-Nitsche | | 2ph+1ph | oral | **5** | |
| Seminar Logic and Theoretical Computer Science | G. Jäger | 2ph | | controle continu | **5** | |
| Seminar Logic and Theoretical Computer Science | G. Jäger | | 2ph | controle continu | **5** | |
| Seminar Logic and Information | G. Jäger G. Metcalfe K. STOFFEL U. Ultes-Nitsche | 1pg | | controle continu | **5** | |
| Seminar Logic and Information | G. Jäger G. Metcalfe K. STOFFEL U. Ultes-Nitsche | | 1pg | controle continu | **5** | |
| **Information Systems and Decision Support** | | | | | | **TOTAL** |
| E-governement frameworks | A. SANDOZ | | 2ph+2ph | oral | **5** | |
| Quantitative Models in Revenue Management (University of Fribourg) | T. Hürlimann | | 2ph+1ph | écrit | **5** | |
| Transportation Logistics: Quantitative Models and | T. Hürlimann | | 2ph+1ph | écrit | **5** | |

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| Methods | | | | | |
|---|---|---|---|---|---|
| Best Practice in Mathematical Modelling | T. Hürlimann | 2ph+1ph | | oral | **5** |
| Graph Theory and Applications | B. Ries | 2ph+1ph | | écrit | **5** |
| **Data Science** | | | | | **TOTAL** |
| Big Data Infrastructures | P. Cudré-Mauroux<br>D. Difallah | 2ph+1ph | | écrit | **5** |
| Social Media Analytics | P. Cudré-Mauroux<br>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 | 2ph+2ph | | écrit | **6** |
| Algèbre linéaire | B. COLBOIS | 4ph+3ph+1j | | 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 | E. RIVIERE | | 2ph+2ph | écrit | **6** |
| Langages et compilation | P. FELBER | | 2ph+2ph | oral | **6** |