Course Descriptions

Descriptions of relevant courses taken at:

School of Engineering and Architecture of Fribourg, Switzerland Bachelor

1 First year

1.1 Algorithmics and Data Structures *(Algorithmique et structures de données 1 - German)* - 6.5 **ECTS** - **Swiss Grade** 5.3/6

Basic computing Science (*TODO* **ECTS**)

1.2 Human-Computer Interaction *(Interface Homme-Machine 1 - French)* - 4 **ECTS** - **Swiss Grade** 5/6

Basic computing Science (*TODO* **ECTS**)

1.3 Programming *(Programmierung - German)* - 6.5 **ECTS** - **Swiss Grade** 5.1/6

Basic computing Science (*TODO* **ECTS**)

1.4 Technical German 1 *(Allemand technique 1 - German)* - 1.5 **ECTS** - **Swiss Grade** *Validated*/6

Languages, communication and management (*TODO* **ECTS**)

1.5 Technical German 2 *(Allemand technique 2 - German)* - 1.5 **ECTS** - **Swiss Grade** *Validated*/6

Languages, communication and management (*TODO* **ECTS**)

1.6 English 1 *(Anglais 1 - English)* - 1.5 **ECTS** - **Swiss Grade** 5.9/6

Languages, communication and management (*TODO* **ECTS**)

1.7 English 2 *(Anglais 2 - English)* - 1.5 **ECTS** - **Swiss Grade** 5.3/6

Languages, communication and management (*TODO* **ECTS**)

1.8 Communcation 1 *(Communication 1 - German)* - 1.5 **ECTS** - **Swiss Grade** 5.1/6

Languages, communication and management (*TODO* **ECTS**)

1.9 Communication 2 *(Communication 2 - German)* - 1.5 **ECTS** - **Swiss Grade** 5.3/6

Languages, communication and management (*TODO* **ECTS**)

1.10 Methodology *(Methodologie - German)* - 2 **ECTS** - **Swiss Grade** 4.2/6

Languages, communication and management (*TODO* **ECTS**)

1.11 IT Project *(Projet TIC - French)* - 2 **ECTS** - **Swiss Grade** *Validated*/6

Languages, communication and management (*TODO* **ECTS**)

1.12 Linear Algebra 1 *(Algèbre linéaire 1 - German)* - 3.5 **ECTS** - **Swiss Grade** 4.7/6

Mathematics (*TODO* **ECTS**)

1.13 Linear Algebra 2 *(Algèbre linéaire 2 - German)* - 3.5 **ECTS** - **Swiss Grade** 4.8/6

Mathematics (*TODO* **ECTS**)

1.14 Calculus 1 *(Analyse 1 - German)* - 3.5 **ECTS** - **Swiss Grade** 4.6/6

Mathematics (*TODO* **ECTS**)

1.15 Calculus 2 *(Analyse 2 - German)* - 3.5 **ECTS** - **Swiss Grade** 4.9/6

Mathematics (*TODO* **ECTS**)

1.16 Discrete Electronics 1 *(Technique numérique 1 - German)* - 4 **ECTS** - **Swiss Grade** 5.1/6

Discrete Electronics (*TODO* **ECTS**)

1.17 Discrete Electronics 2 *(Technique numérique 2 - German)* - 4 **ECTS** - **Swiss Grade** 4.7/6

Discrete Electronics (*TODO* **ECTS**)

1.18 Networking 1 *(Téléinformatique 1 - German)* - 4 **ECTS** - **Swiss Grade** 4.2/6

Networking (*TODO* **ECTS**)

1.19 Networking 2 *(Téléinformatique 2 - German)* - 4 **ECTS** - **Swiss Grade** 5.4/6

Networking (*TODO* **ECTS**)

2 Second year

2.1 Data Structures and Algorithms 2 & Labs *(Algorithmique et structures de données 2 - French)* - 3.5 **ECTS** - **Swiss Grade** 5.5/6

Algorithmic, Database, Software Engineering (*TODO* **ECTS**)

2.2 Data Structures and Algorithms 3 & Labs *(Algorithmique et structures de données 3 - French)* - 5.5 **ECTS** - **Swiss Grade** 5/6

Algorithmic, Database, Software Engineering (*TODO* **ECTS**)

2.3 Databases 1 *(Bases de données 1 - French)* - 4 **ECTS** - **Swiss Grade** 5.3/6

Algorithmic, Database, Software Engineering (*TODO* **ECTS**)

2.4 Software Engineering 1 *(Génie Logiciel 1 - French)* - 4 **ECTS** - **Swiss Grade** 5.4/6

Algorithmic, Database, Software Engineering (*TODO* **ECTS**)

2.5 Specialized Mathematics 1 *(Mathématiques spécifiques 1 - French)* - 3.5 **ECTS** - **Swiss Grade** 5/6

Mathematics and Sciences for Computer Scientists (*TODO* **ECTS**)

2.6 Specialized Mathematics 2 *(Mathématiques spécifiques 2 - French)* - 3 ECTS - Swiss Grade 5.4/6

Mathematics and Sciences for Computer Scientists (*TODO* **ECTS**)

2.7 Physics SIAM *(Physique SIAM - French)* - 4 ECTS - Swiss Grade 4.4/6

Mathematics and Sciences for Computer Scientists (*TODO* **ECTS**)

2.8 Statistics *(Statistiques - German)* - 1.5 ECTS - Swiss Grade 4.5/6

Mathematics and Sciences for Computer Scientists (*TODO* **ECTS**)

2.9 Business Management *(Betriebswirtschaft - German)* - 1.5 ECTS - Swiss Grade 5.3/6

Project and Project Management (*TODO* **ECTS**)

2.10 Project Management ICT *(Projektmanagement ICT - German)* - 2 ECTS - Swiss Grade 5.2/6

Project and Project Management (*TODO* **ECTS**)

2.11 Semester Project *(Projet de semestre - French)* - 2.5 ECTS - Swiss Grade 5.7/6

Project and Project Management (*TODO* **ECTS**)

2.12 Mobile Applications 1 *(Applications Mobiles 1 - French)* - 4 ECTS - Swiss Grade 5.1/6

Information Systems and Mobile Applications (*TODO* **ECTS**)

2.13 Concurrent Programming 1 *(Programmation concurrente 1 - French)* - 4 ECTS - Swiss Grade 5.2/6

Information Systems and Mobile Applications (*TODO* **ECTS**)

2.14 Concurrent Programming 2 *(Programmation concurrente 2 - French)* - 4 ECTS - Swiss Grade 5.1/6

Information Systems and Mobile Applications (*TODO* **ECTS**)

2.15 Information Systems 1 *(Systèmes d'information 1 - French)* - 2 ECTS - Swiss Grade 5/6

Information Systems and Mobile Applications (*TODO* **ECTS**)

2.16 Embedded-Systems 1 *(Embedded-Systems 1 - German)* - 4 ECTS - Swiss Grade 5.1/6

Embedded systems and operating systems (*TODO* **ECTS**)

2.17 Operating Systems 1 *(Système d'exploitation 1 - French)* - 3 ECTS - Swiss Grade 5.1/6

Embedded systems and operating systems (*TODO* **ECTS**)

2.18 Embedded-Systems 2 *(Systèmes Embarqués 2 - French)* - 4 ECTS - Swiss Grade 5/6

Embedded systems and operating systems (*TODO* **ECTS**)

3 Third year

3.1 Microprocessor Systems *(Microprocesseurs - French)* - 2 **ECTS** - **Swiss Grade** 3.8/6

Applied Computer Science 1 (*TODO* **ECTS**)

3.2 Physics and Simulation *(Physique et simulation - French)* - 3 **ECTS** - **Swiss Grade** 5.4/6

Applied Computer Science 1 (*TODO* **ECTS**)

3.3 C/C++ Programming *(Programmation C/C++ - French)* - 2 **ECTS** - **Swiss Grade** 4.1/6

Applied Computer Science 1 (*TODO* **ECTS**)

3.4 Web Application Security *(Sécurité des applications - French)* - 2 **ECTS** - **Swiss Grade** 4.6/6

Applied Computer Science 1 (*TODO* **ECTS**)

3.5 Elective: Game Design and Development *(Chapitre spécialisé: Game Design and Development - French)* - 2 **ECTS** - **Swiss Grade** 5.5/6

Advanced Computer Science (*TODO* **ECTS**)

3.6 Elective: NoSQL *(Chapitre spécialisé: Introduction au monde NoSQL - French)* - 2 **ECTS** - **Swiss Grade** 5.1/6

Advanced Computer Science (*TODO* **ECTS**)

3.7 Elective: IT startup bootcamp *(Chapitre spécialisé: IT startup bootcamp - French)* - 2 **ECTS** - **Swiss Grade** 5.5/6

Advanced Computer Science (*TODO* **ECTS**)

3.8 Elective: Macine Learning *(Chapitre spécialisé: Machine Learning Applications - French)* - 2 **ECTS** - **Swiss Grade** 4.9/6

Advanced Computer Science (*TODO* **ECTS**)

3.9 Databases 2 *(Bases de données 2 - French)* - 2 **ECTS** - **Swiss Grade** 4.6/6

Advanced Computer Science 2 (*TODO* **ECTS**)

3.10 Software Engineering 2 *(Génie logiciel 2 - French)* - 3 **ECTS** - **Swiss Grade** 5/6

Advanced Computer Science 2 (*TODO* **ECTS**)

3.11 Human-Computer Interaction 2 *(Interfaces homme-machine 2 - French)* - 2 **ECTS** - **Swiss Grade** 5.1/6

Advanced Computer Science 2 (*TODO* **ECTS**)

3.12 Logic Programming *(Programmation logique - French)* - 3 **ECTS** - **Swiss Grade** 5.4/6

Advanced Computer Science 2 (*TODO* **ECTS**)

3.13 Semester Project 5 *(Semesterprojekt 5 - German)* - 4 **ECTS** - **Swiss Grade** 4.8/6

Semester Projects (*TODO* **ECTS**)

3.14 Semester Project 6 *(Semesterprojekt 6 - German)* - 5 **ECTS** - **Swiss Grade** 5.3/6

Semester Projects (*TODO* **ECTS**)

3.15 Information Systems Architecture *(Architecture des systèmes d'information - French)* - 7 **ECTS** - **Swiss Grade** 5.2/6

Information Systems Specialization (*TODO* **ECTS**)

3.16 Advanced Java Programming *(Programmation avancée Java - French)* - 2 **ECTS** - **Swiss Grade** 5/6

Information Systems Specialization (*TODO* **ECTS**)

3.17 Information Systems 2 *(Systèmes d'information 2 - French)* - 3 **ECTS** - **Swiss Grade** 5.8/6

Information Systems Specialization (*TODO* **ECTS**)

3.18 Bachelor Thesis *(Travail de Bachelor - English)* - 12 **ECTS** - **Swiss Grade** 4.9/6

Bachelor Thesis (*TODO* **ECTS**)