

MASTER IN
COMPUTER
SCIENCE

**Master of Science in Computer Science
of the Universities of
Bern, Neuchâtel and Fribourg**

Prof. Dr. Timo Kehrer

mcs.unibnf.ch

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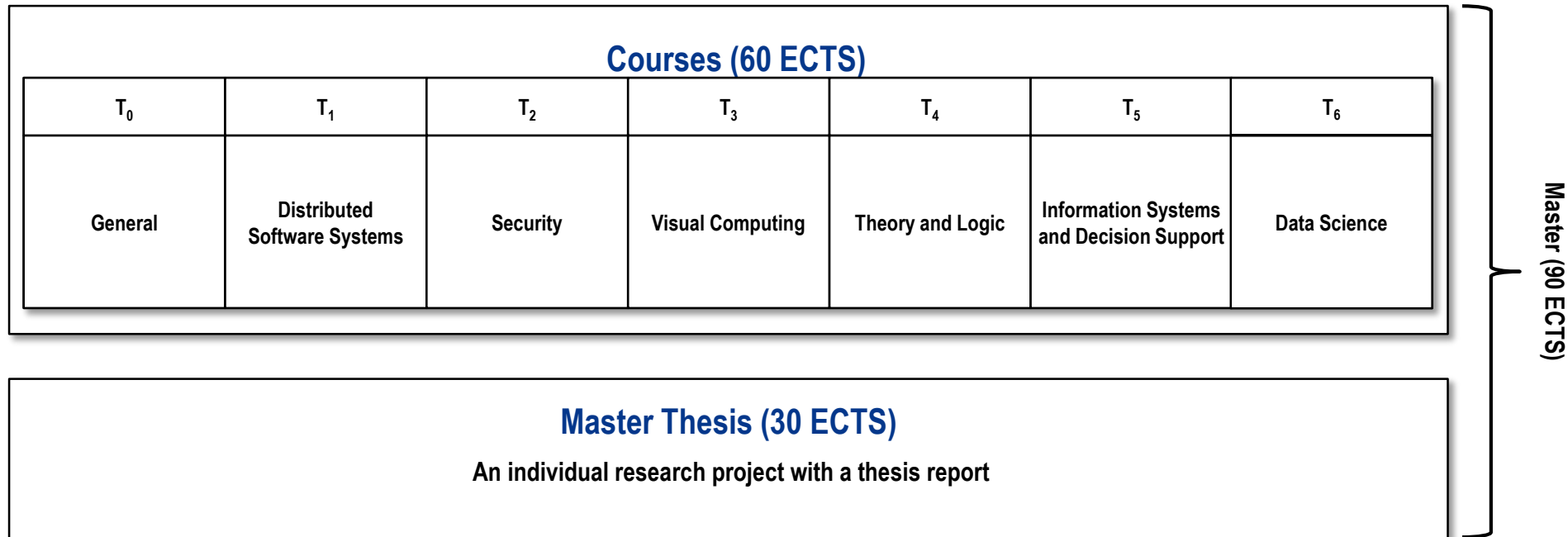
3 Universities – 1 Campus

- ▶ The **Swiss Joint Master of Science in Computer Science** is a study program offered by the universities of Bern, Neuchâtel, and Fribourg
- ▶ However, this multi-site infrastructure can be considered as one campus
 - ▶ travel between the sites by public transportation is quick, convenient and comfortable, and the travel costs are reimbursed
 - ▶ common legal documents
 - ▶ common systems

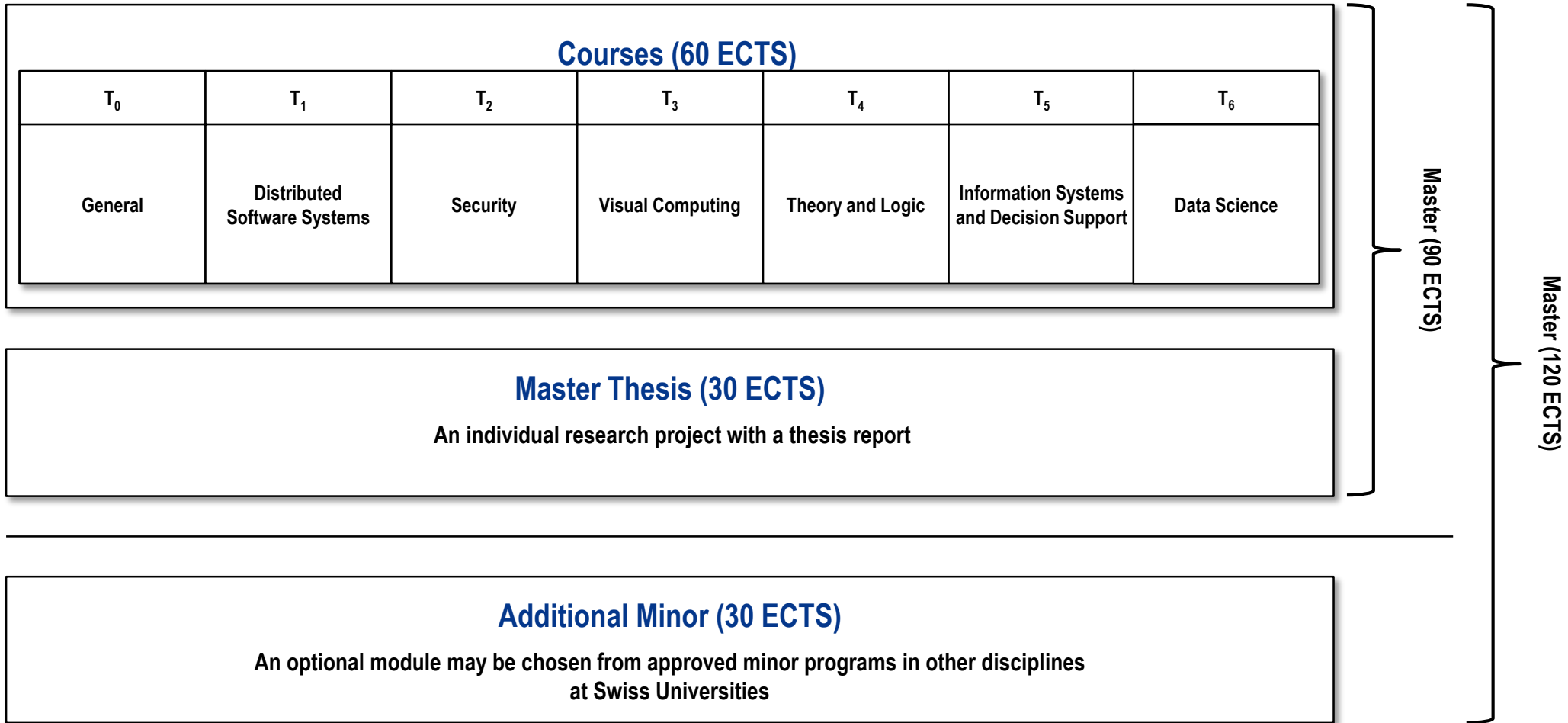


1. JOINT MASTER PROGRAM

Structure of the Master Studies



Structure of the Master Studies



A Broad and Structured Offer

- ▶ All courses are credited with 5 ECTS
- ▶ A student chooses 12 courses/seminars
 - ▶ a minimum of 8 courses out of around 40 courses
 - ▶ a minimum of 2 seminars out of seminars offered by 19 research groups
 - ▶ the full course/seminar list can be found on our website
- ▶ All courses/seminars are grouped into 7 tracks according to fields of studies, allowing high quality focus

Available Tracks

- ▶ T0 - General (complementary offer)
- ▶ T1 - Distributed Software Systems
- ▶ T2 - Security
- ▶ T3 - Visual Computing
- ▶ T4 - Theory and Logic
- ▶ T5 - Information Systems and Decision Support
- ▶ T6 - Data Science

Diversification and Focus

- ▶ There are no mandatory courses
- ▶ Diversification
 - ▶ at least 3 tracks have to be touched (earning at least 5 ECTS per track)
- ▶ Optional specialization
 - ▶ at least 25 ECTS in one track (T1 - T6) + master thesis

Study Duration

- ▶ The program normally takes 3 semesters of full-time studies to complete (30 ECTS each semester)
- ▶ The maximal study duration is limited to 6 semesters
- ▶ Exceptionally, in case of part-time studies, the duration of the program may be, upon request, extended accordingly

Evaluation / Exam

- ▶ Exam principles
 - ▶ the exams take place at the end of the semester
 - ▶ only failed exams can be repeated at a fixed repetition date

- ▶ A course is only credited if a mark ≥ 4.0 has been obtained

- ▶ Insufficient marks (< 4.0) cannot be compensated with higher marks of other courses

Study Tracking

- ▶ To guarantee a certain quality standard in the master program, a so-called study tracking is performed two times during the academic year
- ▶ The goal of such a study tracking is to observe the progress that students made during the last semester
- ▶ Students who have problems in their studies are advised how to better plan their further studies

2. LEGAL DOCUMENTS

Conventions

- ▶ **Convention cadre / Rahmenvereinbarung**
 - ▶ agreement about the collaboration between the three BeNeFri universities

- ▶ **Convention de branche / Fachkonvention**
 - ▶ agreement about the collaboration between the three BeNeFri Computer Science institutes

**BENEFRI – Universités de Berne,
Neuchâtel, Fribourg**

**Convention de branche BENEFRI en
Informatique**

du 23 février 2010

**BENEFRI – Universitäten Bern,
Neuenburg und Freiburg**

**Fachkonvention BENEFRI in
Informatik**

vom 23. Februar 2010

Regulation and Study Plan

▶ Règlement / Reglement

- ▶ regulation that specifies the principles of the master studies in Computer Science and the corresponding evaluations

BENEFRI – Universités de Berne, Neuchâtel, Fribourg	BENEFRI – Universitäten Bern, Neuenburg und Freiburg
Règlement pour l'obtention du Master en Informatique	Reglement für die Erlangung des Masters in Informatik

▶ Plan d'études / Studienplan

- ▶ contains the structure and the rules of the master studies

BENEFRI – Universités de Berne, Neuchâtel et Fribourg	BENEFRI – Universitäten Bern, Neuenburg und Freiburg
Plan d'études pour l'obtention du Master en Informatique	Studienplan für die Erlangung des Masters in Informatik

Supplement to the Study Plan

- ▶ **Annexe du plan d'études / Anhang zum Studienplan**
 - ▶ contains the list of teaching units with the corresponding ECTS credits
 - ▶ this list is adapted every year

**BENEFRI – Universités de Berne,
Neuchâtel et Fribourg**

**Annexe du plan d'études pour
l'obtention du Master en Informatique**

du 11 mai 2023

**BENEFRI – Universitäten Bern,
Neuenburg und Freiburg**

**Anhang zum Studienplan für die
Erlangung des Masters in Informatik**

vom 11. Mai 2023

3. ORGANIZATION AND STUDENT'S TODO LIST

Administration Systems

- ▶ Website
 - ▶ information about the program (<https://mcs.unibnf.ch>)
- ▶ Learning management system (ILIAS)
 - ▶ for all courses and seminars, there is a course page in ILIAS (<https://mcs.unibnf.ch/e-learning>, click on “Login”)
- ▶ Student management system (Academia)
 - ▶ students are administrated with Academia (<https://mcs.unibnf.ch/admin>)

Student's ToDo List for every Semester (1/3)

- ▶ Registration for teaching units (courses and seminars)
 - ▶ at the beginning of each semester, students must register for the teaching units that they want to take during that semester
 - ▶ students who have registered for a teaching unit but later change their mind about attending it, are requested to cancel their registration
 - ▶ (de-)registration in Academia through SWITCHaai with your account and password of your SWITCH edu-ID
<https://mcs.unibnf.ch/admin>

Student's ToDo List for every Semester (2/3)

▶ Registration for exams

- ▶ students have to register for the exam before the registration deadline
- ▶ students who do not register to take the exam at the end of the teaching unit are not allowed for the repetition exam
- ▶ registration for an exam can be cancelled or withdrawn (this procedure depends on when it takes place)
- ▶ (de-)registration in Academia through SWITCHaai with your account and password of your SWITCH edu-ID
<https://mcs.unibnf.ch/admin>

Student's ToDo List for every Semester (3/3)

▶ Reimbursement of travel expenses

- ▶ at the beginning of each semester: register for the BeNeFri network if you follow a teaching unit at a partner university until
 - ▶ autumn semester: September 30th
 - ▶ spring semester: February 28th
- ▶ during the semester: complete the travel regulation (BeNeFri forms) available at <https://www.unifr.ch/studies/en/assets/public/files/sai/benefriremboursementen.pdf> (the lecturer has to sign for all of his/her courses)
- ▶ at the end of the semester: sign the form and send it, together with the necessary attachments (train tickets, ...), to the responsible service of the home university
 - ▶ autumn semester: January 31st
 - ▶ spring semester: June 30th

Master Thesis

- ▶ Before starting your master thesis, you should in principle have achieved all your teaching units (if applicable, all additional academic requirements must be successfully completed)
- ▶ Details can be found at <https://mcs.unibnf.ch/organization/master-thesis/>

Important Dates and Deadlines

- ▶ Registration for teaching units (<https://mcs.unibnf.ch/admin>)
 - ▶ autumn semester 2023: **October 13th 2023**
 - ▶ spring semester 2024: **March 15th 2024**

- ▶ Registration for exams (<https://mcs.unibnf.ch/admin>)
 - ▶ autumn semester 2023: **January 2nd 2024**
 - ▶ spring semester 2024: **May 10th 2024**
 - ▶ repetition 2024: **August 2nd 2024**

- ▶ Reimbursement of travel expenses (<http://www.unifr.ch/benefri>)
 - ▶ autumn semester: **January 31st**
 - ▶ spring semester: **June 30th**

Complement to the Master Program

- ▶ Teaching units of the complement are submitted to the bachelor rules and regulations of the Faculty of Science of the home university (dates, condition to pass, ...)
 - ▶ Be: https://www.unibe.ch/e152701/e154048/e191232/e205337/e707890/phil_nat_rsl_final_ger.pdf
 - ▶ Ne: <https://rsn.ne.ch/DATA/program/books/rsne/htm/416.320.htm?myD=1680008272440>
 - ▶ Fr: <https://webapps.unifr.ch/legal/de/document/3226385>
- ▶ Student management systems used in the complement
 - ▶ Be: KSL (<http://www.ksl.unibe.ch>)
 - ▶ Ne: Academia (<http://www.unine.ch/is-academia>)
 - ▶ Fr: MyUnifr (<http://my.unifr.ch>)

4. INFORMATION FOR HOSTED JMCS STUDENTS

Hosted JMCS Students

- ▶ Hosted JMCS students are all students other than JMCS students (students who are matriculated in the Joint Master program in Computer Science) who follow a teaching unit of the Joint Master in Computer Science, e.g.:
 - ▶ bachelor students in Computer Science (major, minor, optional studies)
 - ▶ master students in Mathematics, Information Management, ...
- ▶ They have exactly to do the same tasks as JMCS students (slides 18, 19, 20). Additionally, they have to:
 - ▶ complete a request form for Academia access (<https://mcs.unibnf.ch/organization/request-for-academia-access/>) at the beginning of every semester until
 - ▶ autumn semester: September 30th
 - ▶ spring semester: February 28th

5. FURTHER INFORMATION AND CONTACT

Further Information

- ▶ Further information can be found on the website (<https://mcs.unibnf.ch>)
 - ▶ program
 - ▶ admission
 - ▶ organization
 - ▶ lectures
 - ▶ research groups
 - ▶ student life
 - ▶ downloads

Frequently Asked Questions

- ▶ There is a section for frequently asked questions (FAQ) on the website: <https://mcs.unibnf.ch/faq/>
- ▶ There are questions like
 - ▶ Is there a possibility to study part-time?
 - ▶ Can I interrupt my studies for a given time period (e.g., one semester or one year)?
 - ▶ ...

Contact (Secretariat)

Program Coordinator

Dr Andreas Humm

University of Fribourg
Department of Informatics
Boulevard de Pérolles 90
CH-1700 Fribourg
Office B410

andreas.humm@unifr.ch

Bern

Bettina Choffat

University of Bern
Institute of Computer Science
Neubrückestrasse 10
CH-3012 Bern
Office 112

bettina.choffat@unibe.ch

Neuchâtel

Émilie Auclair

University of Neuchâtel
Computer Science Department
Rue Emile-Argand 11
CH-2000 Neuchâtel
Office B113

secretariat.iiun@unine.ch

Fribourg

Stéphanie Fasel

University of Fribourg
Department of Informatics
Boulevard de Pérolles 90
CH-1700 Fribourg
Office B412

stephanie.fasel@unifr.ch

Contact (Student Counselors)

Bern

Bettina Choffat

University of Bern
Institute of Computer Science
Neubrückestrasse 10
CH-3012 Bern
Office 112

bettina.choffat@unibe.ch

Neuchâtel

Prof. Christos Dimitrakakis

University of Neuchâtel
Computer Science Department
Rue Emile-Argand 11
CH-2000 Neuchâtel
Office B116

christos.dimitrakakis@unine.ch

Fribourg

Dr Andreas Humm

University of Fribourg
Department of Informatics
Boulevard de Pérolles 90
CH-1700 Fribourg
Office B410

andreas.humm@unifr.ch

Branch Committee

▶ Members

- ▶ Prof. David Bommès, University of Bern (president)
- ▶ Prof. Christos Dimitrakakis, University of Neuchâtel
- ▶ Prof. Paolo Favaro, University of Bern
- ▶ Prof. Pascal Felber, University of Neuchâtel
- ▶ Prof. Edy Portmann, University of Fribourg
- ▶ Prof. Bernard Ries, University of Fribourg

Networking

- ▶ During your studies: Fachschaft
 - ▶ Be: Fachschaft Mathematik-Informatik Bern (<https://www.fsmib.ch/>)
 - ▶ Fr: Fachschaft of Informatics (<http://student.unifr.ch/informatics>)
They always search new members!

- ▶ After your studies: Alumni
 - ▶ Joint Alumni Association in Computer Science (JAACS) (<https://www.jointalumni.ch>)

Questions?

We hope your studies will be interesting and successful!