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

Courses (60 ECTS)

<table>
<thead>
<tr>
<th>T₀</th>
<th>T₁</th>
<th>T₂</th>
<th>T₃</th>
<th>T₄</th>
<th>T₅</th>
<th>T₆</th>
</tr>
</thead>
</table>

Master Thesis (30 ECTS)
An individual research project with a thesis report
# Structure of the Master Studies

## Courses (60 ECTS)

<table>
<thead>
<tr>
<th>$T_0$</th>
<th>$T_1$</th>
<th>$T_2$</th>
<th>$T_3$</th>
<th>$T_4$</th>
<th>$T_5$</th>
<th>$T_6$</th>
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## Master Thesis (30 ECTS)

An individual research project with a thesis report

## Additional Minor (30 ECTS)

An optional module may be chosen from approved minor programs in other disciplines at Swiss Universities
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 $\geq 4.0$ 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

<table>
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<tr>
<th>BENEFRI – Universités de Berne, Neuchâtel, Fribourg</th>
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</thead>
<tbody>
<tr>
<td>Convention de branche BENEFRI en Informatique</td>
<td>Fachkonvention BENEFRI in Informatik</td>
</tr>
<tr>
<td>du 23 février 2010</td>
<td>vom 23. Februar 2010</td>
</tr>
</tbody>
</table>
Regulation and Study Plan

Règlement / Reglement
- regulation that specifies the principles of the master studies in Computer Science and the corresponding evaluations

Plan d’études / Studienplan
- contains the structure and the rules of the master studies
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

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</thead>
<tbody>
<tr>
<td>Annexe du plan d’études pour l’obtention du Master en Informatique</td>
<td>Anhang zum Studienplan für die Erlangung des Masters in Informatik</td>
</tr>
<tr>
<td>du 11 mai 2023</td>
<td>vom 11. Mai 2023</td>
</tr>
</tbody>
</table>
3. ORGANIZATION AND STUDENT’S TODO LIST
Administration Systems

- **Website**
  - Information about the program ([https://mcs.unibnf.ch](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](https://mcs.unibnf.ch/e-learning), click on “Login”)

- **Student management system (Academia)**
  - Students are administrated with Academia ([https://mcs.unibnf.ch/admin](https://mcs.unibnf.ch/admin))
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
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](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 13\textsuperscript{th} 2023
  - spring semester 2024: March 15\textsuperscript{th} 2024

- Registration for exams (https://mcs.unibnf.ch/admin)
  - autumn semester 2023: January 2\textsuperscript{nd} 2024
  - spring semester 2024: May 10\textsuperscript{th} 2024
  - repetition 2024: August 2\textsuperscript{nd} 2024

- Reimbursement of travel expenses (http://www.unifr.ch/benefri)
  - autumn semester: January 31\textsuperscript{st}
  - spring semester: June 30\textsuperscript{th}
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/](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/](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)?
  - ...

15.09.2023
Contact (Secretariat)

Program Coordinator

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Branch Committee

Members

- Prof. David Bommes, 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!