Welcome Day 16.09.2016 – Information session to the new Master students

WELCOME
to the
MASTER
in
Computer Science
and
Communication Systems
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TODAY’S SPEAKERS

• Prof. Bernard Moret: Director of the Laboratory for Computational Biology and Bioinformatics (LCBB)

• William Trouleau (SC), Georg Schmid (IN) & Mikael Mayer (IN): Initial study advisors
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AGENDA

• CURRICULUM
  ▪ Overview
  ▪ Specializations and Minors
  ▪ Courses outside the study plan
  ▪ Registration to courses and exams

• PROJECTS

• PDM - MASTER THESIS PROJECT

• MANDATORY INTERNSHIP

• CONTACTS
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WHO WE ARE

• 45+ Faculty

• International composition

• Core + interdisciplinary science
  ➢ Collaborations with Life Sciences, Mathematics, Microengineering, Electrical Engineering, etc.
IC RESEARCH AREAS

- Algorithms & Theoretical Computer Science
- Artificial Intelligence & Machine Learning
- Computational Biology
- Computer Architecture & Integrated Systems
- Data Management & Information Retrieval
- Graphics & Vision
- Human-Computer Interaction
- Information & Communication Theory
- Networking
- Programming Languages & Formal Methods
- Security & Cryptography
- Signal & Image Processing
- Systems
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CURRICULUM
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BACHELOR / MASTER / PHD

PhD
3/4 years

MASTER
SIN: 1.5 years /90 ECTS
SSC: 2 years /120 ECTS

BACHELOR
3 years/180 ECTS

Doctoral School
Applications of students from foreign universities
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MASTER IN COMMUNICATION SYSTEMS (SSC)

Semester project
12 credits

SHS project
6 credits

= 18 credits

Core courses
30 credits

Optional courses
42 credits

= 72 credits

Internship
in the industry *

Master thesis project
30 credits

= 30 credits

TOTAL = 120 credits

* Can be part of a Master thesis project in the industry

Specialization or minor:
30 credits included in the 72 credits of core and optional courses
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MASTER IN COMPUTER SCIENCE (SIN)

Semester project
12 credits

SHS project
6 credits

Core courses
15 credits

Optional courses
27 credits

Internship
in the industry *

Master thesis project
30 credits

TOTAL = 90 credits

* Can be part of a Master thesis project in the industry

Specialization or minor:
30 additional credits (one additional semester)
MAXIMUM LENGTH OF THE MASTER PROGRAM

- **SSC & SIN (120 credits)**
  - Maximum duration for the MSc cycle (before the Master Thesis project): 6 semesters to get 90 credits
  - Maximum duration for the MSc program (including the Master Thesis project): 8 semesters

- **SIN (90 credits)**
  - Maximum duration for the MSc cycle (before the Master Thesis project): 4 semesters to get 60 credits
  - Maximum duration for the MSc program (including the Master Thesis project): 6 semesters
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SSC & SIN SPECIALIZATIONS

A. COMPUTER ENGINEERING - Prof. P. Ienne
B. DATA ANALYTICS – Prof. M. Grossglauser
C. FOUNDATIONS OF SOFTWARE - Prof. M. Odersky
D. INFORMATION SECURITY - Prof. A. Lenstra
E. NETWORKING AND MOBILITY - Prof. J.-Y. Le Boudec
F. SIGNALS, IMAGES, AND INTERFACES - Prof. M. Vetterli
G. SOFTWARE SYSTEMS - Prof. G. Candea
H. WIRELESS COMMUNICATIONS – Prof. E. Telatar
I. COMPUTER SCIENCE THEORY – Prof. N. Vishnoi
J. INTERNET INFORMATION SYSTEMS – Prof. B. Faltings & K. Aberer
MINORS FOR SSC & SIN STUDENTS

Recommended minors:

- **Biocomputing** (offered by the Computer Science Program)
- **Biomedical Technologies** (offered by the Microengineering Program)
- **Computational Science & Engineering** (offered by the Mathematics Program)
- **Spacial Technologies** (offered by the Electrical Engineering Program)
- **Technology Management and Entrepreneurship** (offered by the Management of Technology Program)
MINORS

• It is possible to prepare other minor degrees, see:
  http://sac.epfl.ch/study_plans (under «Minors with specific courses»).

• For a minor not listed, the student must contact the SIN & SSC Deputy Head and ask for the approval of the Minor program Director.

• Some minors (for example Financial Engineering) accept only a limited number of students.

• For SSC rules and procedure, see: http://ic.epfl.ch/page-97561-en.html

• For SIN rules and procedure, see: http://ic.epfl.ch/page-97562-en.html
REGISTRATION TO SPECIALIZATIONS AND MINORS

Please do not register to a specialization or a minor now!

Registration deadline:

- **Minor SC & IN**: End of the 1\textsuperscript{st} semester of studies
- **Specialization SC**: Beginning of the 3\textsuperscript{rd} semester of studies
- **Specialization IN**: Beginning of the 2\textsuperscript{nd} semester of studies
COURSES OUTSIDE THE STUDY PLAN

• 15 credits maximum are allowed for the whole MSc program. Out of these 15 credits, 12 credits maximum of “non technical” courses (HEC, MTE) are allowed.

• Authorization must be requested to take these courses BEFORE registering for the courses in IS-Academia. Request to be sent by e-mail to:

  Sylviane Dal Mas: SSC & SIN students without EPFL BSc
  Augusta Ecuyer: SSC students with EPFL BSc
  Antonella Veltro: SIN students with EPFL BSc
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BACHELOR COURSES

• Bachelor courses **cannot** be taken during the MSc program.

**Exceptions**

• Can be taken if they are a missing prerequisite for a MSc course. Yet, no credits towards the MSc will be counted!

• For SIN students, the course *Signal Processing for Communications* can also be taken, but the credits will be counted for the MSc only if the student registers for the Signals, Images and Interfaces specialization.
DOCTORAL SCHOOL COURSES

• Courses from the Doctoral School taken during the MSc program are considered to be outside the study plan; therefore, a maximum of 15 credits can be counted.

• The list of the Doctoral School courses and their mandatory prerequisites can be found on [http://phd.epfl.ch/edic/courseoffering](http://phd.epfl.ch/edic/courseoffering) for SSC & SIN.

• Doctoral school courses can be taken in advance for a PhD. Please note: only credits above the MSc mandatory credits will be credited toward the PhD requirements.
INTERNATIONAL BACHELOR STUDENTS

STUDY PLAN

Before registering for courses in IS-Academia, please submit your choice of courses by e-mail to Ms Sylviane Dal Mas: sylviane.dalmas@epfl.ch

Don’t forget to mention your Section:

Communication systems or Computer science !!!

Deadline: 26th September 2016
REGISTRATION TO COURSES AND EXAMS

- Deadline for registration for courses and exams: 30th September 2016

- Registration for courses and projects is MANDATORY in order to be able to take the exams.

- Latest withdrawal from exams: 25th November 2016

More important deadlines and information are available on the Registrar’s office website: [http://memento.epfl.ch/academic-calendar/](http://memento.epfl.ch/academic-calendar/)
EXAMS

• Exams sessions: January/February and June/July.

• In case of failure of an exam, you have to take again the course the following year or replace it by another course the following semester.
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PROJECTS
SEMESTER PROJECT

• The semester project can be done during the Autumn or Spring semester.

• If you want to do it during the Autumn 2016 semester, please contact directly a laboratory of your choice and register in IS-Academia NOW!

• Details can be found on the following websites:
  SSC: http://ic.epfl.ch/page-29175-en.html
  SIN: http://ic.epfl.ch/semester_project
SHS PROJECT

The SHS project ("humanities") must be done:

• Over two semesters, starting only in Autumn
• Individually or in groups

You’re strongly recommended to start it now

If the student plans to do an internship during the spring semester, the section will find an agreement with the Registrar’s Office and the SHS.
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PDM
MASTER THESIS PROJECT
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#### PDM – MASTER THESIS PROJECT

<table>
<thead>
<tr>
<th>SIN &amp; SSC</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>EPFL</td>
<td>4 months</td>
</tr>
<tr>
<td>Industry / Other University</td>
<td>6 months</td>
</tr>
</tbody>
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PDM – MASTER THESIS PROJECT

- 4 possibilities:
  - At EPFL, proposals from labs
  - At EPFL, your own proposal to a Professor
  - In the industry
  - Other Universities
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MANDATORY INTERNSHIP
MANDATORY INTERNSHIP

You can do your mandatory internship in one of the following forms:

• Short internship (min. 8 weeks during summer)
• Long internship (6 months) – “sabbatical leave”
• Integrated in the Master thesis project in the industry (6 months)
MANDATORY INTERNSHIP

• Some companies in the USA only offer 12-16 weeks internships during the summer: Facebook, Google, LinkedIn, Yahoo, Twitter

• You will be exceptionally allowed to be absent during the autumn semester, so that you can complete this 12-16 weeks internship

• You will have to start the internship by 15th July
MANDATORY INTERNSHIP

International Bachelor students are required to complete a full year before being allowed to do an internship. Therefore, internship is possible in Summer / Autumn 2017 at earliest for them.
DOUBLE-DEGREE WITH Hong Kong University of Science and Technology (HKUST)

• HKUST CS program is top-ranked in Asia with many connections to China (Tencent, Alibaba, etc.).

• Earn 2 masters degrees in a single program.

• Research-oriented, one-year Master project: takes 6 months longer (2 years+internship), co-supervised by a professor from EPFL and a professor from HKUST.
DOUBLE-DEGREE WITH Hong Kong University of Science and Technology (HKUST)

• In case of interest, contact Prof. Boi Faltings, boi.faltings@epfl.ch, by mid-October 2016, even if you have not yet decided to do the double-degree.

CONTACTS
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INITIAL STUDY ADVISORS FOR INTERNATIONAL BACHELOR STUDENTS
INTERNATIONAL BACHELOR STUDENTS:

- To ensure coherence between your BSc and MSc studies, curriculum counselling is available during the transition period.

- In order to have a personal discussion about your choice of courses, you have received an invitation by email from your initial study advisors: William Trouleau (SC), Georg Schmid (IN) or Mikaël Mayer (IN)
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INITIAL STUDY ADVISORS

• for SSC:
  William Trouleau  PhD student

• for SIN:
  Georg Schmid  PhD student
  Mikael Mayer  PhD student
INTERNATIONAL BACHELOR STUDENTS:

• Please bring for the discussion:
  - your preliminary plan for the first semester
  - a list of questions

• You will discuss course content rather than rules
PERMANENT STUDY ADVISORS
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ADVISORY PROFESSORS, CLASS 16/17

• for SSC:

  Prof. Michael Gastpar
  LINX: Laboratory for Information in Networked Systems

  Prof. Karl Aberer
  LSIR: Distributed Information Systems Laboratory
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ADVISORY PROFESSORS, CLASS 16/17

• for SIN:
  Prof. George Candea
  DSLAB: Dependable Systems Laboratory
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ADMINISTRATIVE CONTACTS
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SSC

- Head of the Program: Prof. Michael Gastpar
- Study Advisors:
  - 1st year: Prof. Michael Gastpar
  - 2nd year: Prof. Karl Aberer
- Master Program assistant: Ms Augusta Ecuyer

SIN

- Head of the Program: Prof. Pascal Fua
- Study Advisor 1st and 2nd years: Prof. George Candea
- Master Program assistant: Ms Antonella Veltro

- Deputy Head, BS/MS Programs: Ms Sylviane Dal Mas
- Internship Program assistant: Ms Patricia Galhardo
- Initial study advisors: William Trouleau, Georg Schmid & Mikaël Mayer
REGISTRAR’S OFFICE – SAC

Please read carefully the e-mails sent by the Registrar’s office - SAC, especially from: Mr J.-P. Festeau and Mr A. Bianchi. They will be sending you relevant information regarding your studies at EPFL as well as important deadlines.
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DO NOT FORGET…

• Our websites
  ➢ for SSC: http://ic.epfl.ch/communication-systems/master
  ➢ for SIN: http://ic.epfl.ch/computer-science/master

You will find plenty of relevant information regarding our programs and rules.

• Your e-mail. This is the only way we can contact you!
BE CAREFUL...

• It’s your responsibility to read and understand the rules and regulations pertaining to your studies at EPFL.

• It’s also your responsibility to read your emails and to attend the information meetings that will be held for you.
ANY QUESTION?
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TEA TIME

15:30

IC School offers you an afternoon snack at

BC’s Cafeteria
Thank you for your attention

Author:
School of Computer and Communication Sciences IC
Computer Science and Communication Systems programs