

Computer Science and Communication Systems

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Section Director

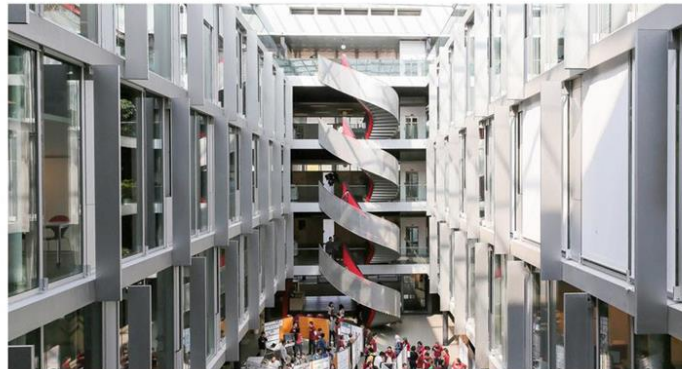
November 20, 2024



**Master
students
930**



**54+6 joint
Professors**



**Bachelor
students**

1436



292

PhD students



School of Computer and Communication Sciences - IC

- Internationally highly ranked
- 54 (+ 6 joint) professors
- Internationally recognized
- Strong industrial liaison
- Core + interdisciplinary science: Collaboration with Life Sciences, Mathematics, Microengineering, Electrical Engineering, etc.
- Doctoral program (EDIC)



Designing systems and methods to efficiently extract, store, transmit, and exploit information about the world.

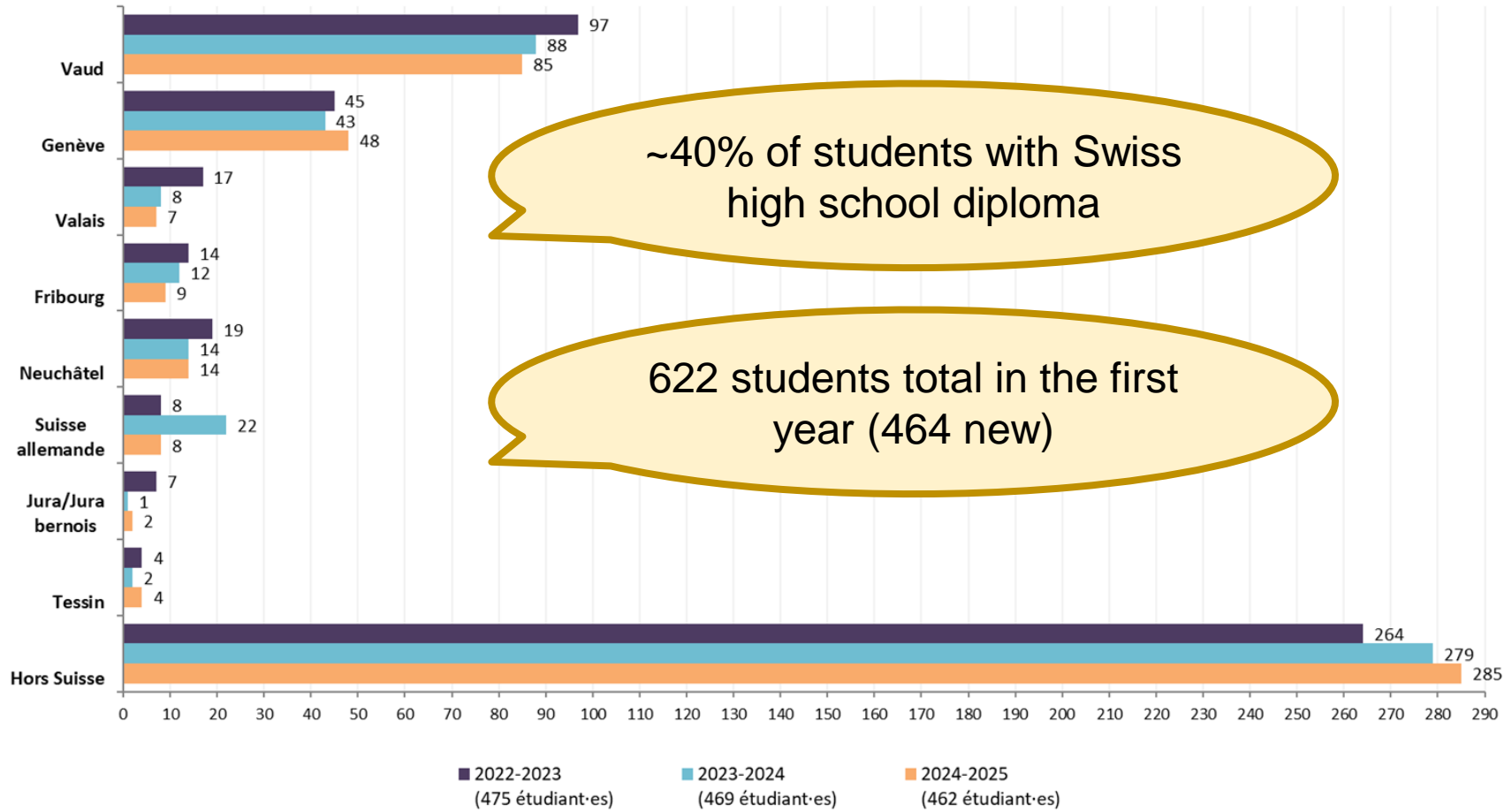
**Two Bachelor programs
3 years = 180 ECTS credits**

Computer Science

Communication Systems

Informatique et Systèmes de Communication

Lieu d'obtention des maturités ou certificats des étudiant-es admis-es en 1ère année

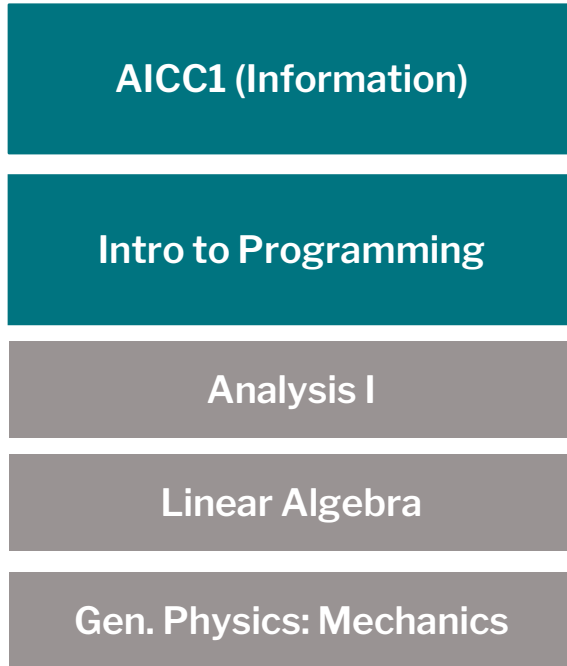


An international school

- Bachelor in French and English (50% / 50%).
- Some 1st year courses optionally in German.
- BSc students mainly from Switzerland and France.
- Master programs in English (100%).
- International student population from 32 countries.

Bachelor First Year: Computer Science & Communication Systems

Fall Semester



Spring Semester



Bachelor Second Year

| Fall semester | Spring semester |
|------------------------------|-------------------|
| Computer Architecture | Algorithms |
| Software Construction | Computer Systems |
| Probability & Statistics | |
| Analysis III | |
| Bio/Physics Group | Bio/Physics Group |
| Social Science | Social Science |
| Options | Options |
| Computer Science (IN) | |

| Fall semester | Spring semester |
|-----------------------------------|-------------------|
| | Algorithms |
| | Computer Systems |
| Probability & Statistics | Machine Learning |
| Analysis III | Signal Processing |
| Gen. Physics electrom. | |
| Social Science | Social Science |
| Options | Options |
| Communication Systems (SC) | |

| Fall semester | Spring semester |
|------------------------------|------------------------|
| Security | Theory of Computation |
| | Data Intensive Systems |
| Project group | Project group |
| Bio/Physique Group | Bio/Physique Group |
| Social Science | Social Science |
| Options | Options |
| Computer Science (IN) | |

| Fall semester | Spring semester |
|-----------------------------------|-----------------------------|
| Security | Principles of digital comm. |
| Stochastic Models | |
| | Project group |
| Algebra | |
| Social Science | Social Science |
| Options | Options |
| Communication Systems (SC) | |

Master (2 years, Master thesis included)

School of Computer & Communication Sciences



Computer Science
consecutive **IN-SC**



Cyber Security
consecutive **IN-SC**

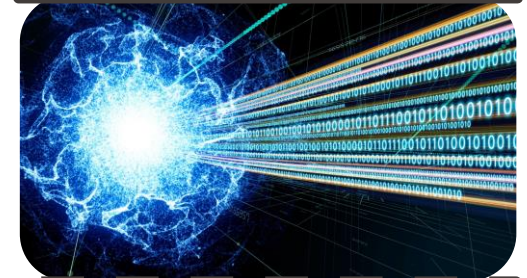


Data Science
consecutive **IN-SC**

Cross-School Programs



Neuro_X (STI-SV-IC)
consecutive **SC**



**Quantum Science and
Engineering (IC-STI-SB)**

EPFL Master in Computer Science with Specialization in Teaching in collaboration with HEP-VD

COMPUTER SCIENCE MASTER

DATA SCIENCE MASTER

This is a joint program between EPFL and HEP-VD to train high school teachers in Computer Science in Switzerland.

The program consists of **120 + 9 ECTS credits**:

- 1st year: corresponding to studies in Computer Science or Data Science.
- 2nd year: composed of the Master's project + specialization courses at HEP.

EPFL



EPFL

Bachelor level

- Exchange year with another university (Europe, America, Japan, China ...)

Master level

- Industrial internships
- Master project in industry or university

Why choose IC ?

CS is everywhere:

- You can work as a Computer Scientist anywhere, from the largest multinationals to the smallest farm, in the public sector, or at NGOs, or you create your own startup!

CS changes fast:

- You won't get bored.
- You can do many different jobs in the course of one career.

The world in general, and Switzerland in particular, does not have enough trained Computer Scientists and Engineers:

- Jobs are easy to find (< 2 months) and well paid.
- Switzerland needs 10'000 Computer Scientists per year but trains only 3'000 or so, and fewer than 200 in the two ETHs. Average EPF starting salaries are around CHF 85K and CHF 130K after 3-4 years. They are a lot higher in companies such as Google.