EPFL

Master's Programs @ IC

Prof. Karl Aberer

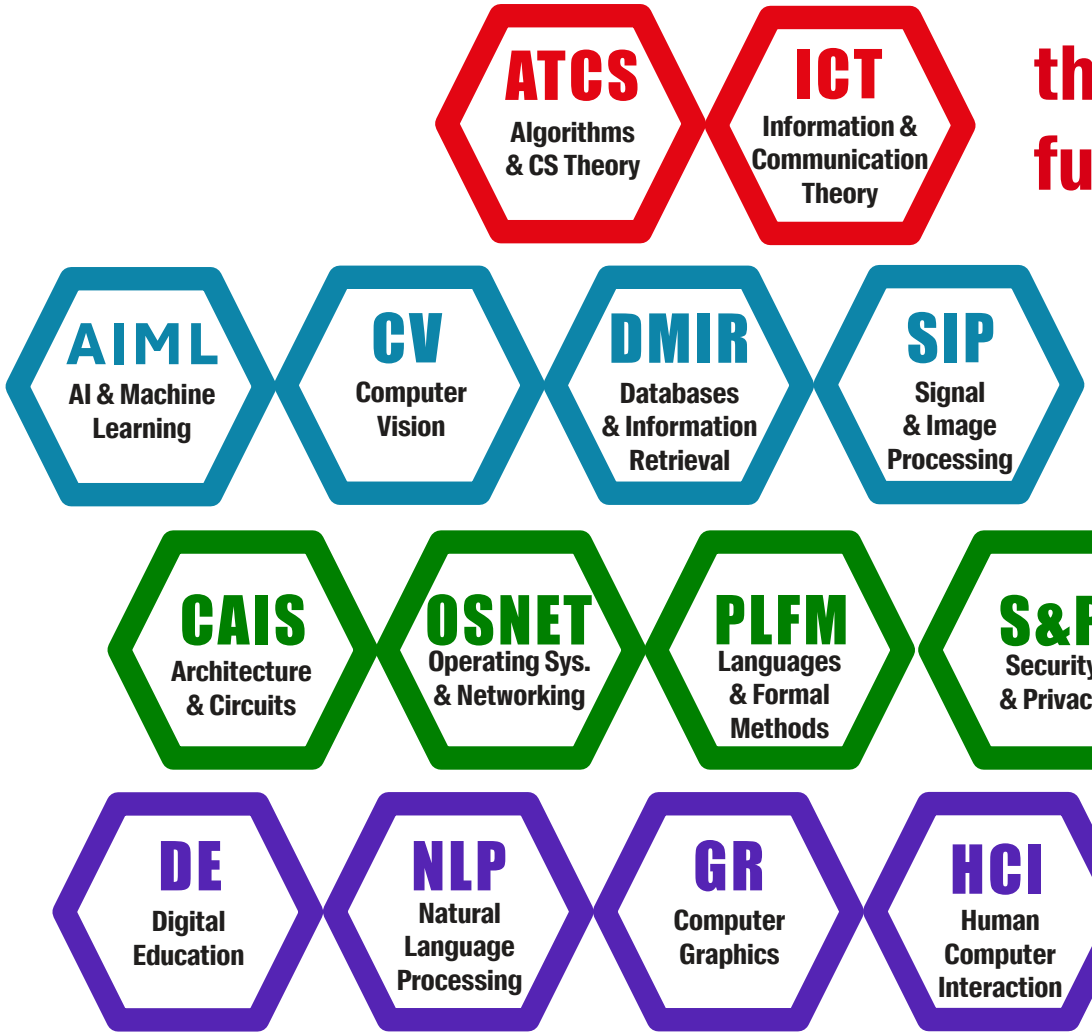
February 27, 2025
SG 0211– 19h00-19h45

École polytechnique fédérale de Lausanne

School of Computer and Communication Sciences - IC

- Internationally highly ranked
- 58 + (11 joint) professors
- Internationally recognized
- Strong industrial liaison
- Core + interdisciplinary science: Collaboration with Life Sciences, Mathematics, Microengineering, Electrical Engineering, etc.
- Doctoral program (EDIC)

IC Research Domains



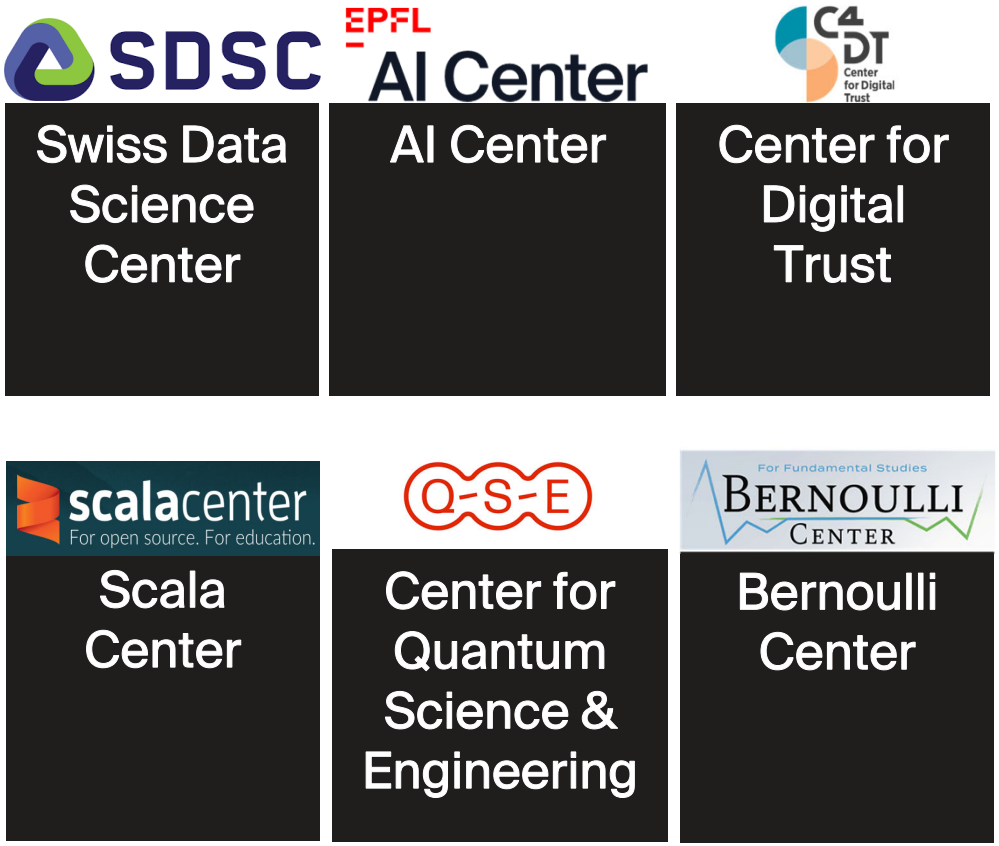
theory, foundations, fundamental limits...

learning from data, extracting knowledge, transforming data ...

building real systems, all layers...

interfacing with humans ...

Research Centers



- Interdisciplinary community
- Access to state-of-the-art research in diverse areas such as AI, digital trust, open-source software, quantum sciences, theoretical CS, ... through many of our research centers.

Why choose IC?

Endless Career Paths

Work in any industry: multinationals, startups, NGOs, public institutions, or even academia. Tech skills open doors everywhere.

Evolving & Versatile

The field moves fast, and so can you. Shift roles between development, AI, data science, and entrepreneurship—all in one career.

Global Impact, Future-Proof Skills

IC is at the heart of innovation in healthcare, AI, and sustainability. Automation-proof and always in demand.

Beyond Coding

Solve real-world problems, design impactful solutions, and drive innovation in any sector.

High Demand & Top Salaries

Switzerland needs 10,000 **IT experts annually** but trains only **3,000.**

- **Fast hiring:** (< 2 months)
- **Starting salary:** ~CHF 85K → **CHF 130K in 3-4 years.**

Examples of job positions

IC Master's programs

Computer & Communication Sciences

Computer Science (IN)
consecutive for IN/SC BS
go.epfl.ch/master-IN

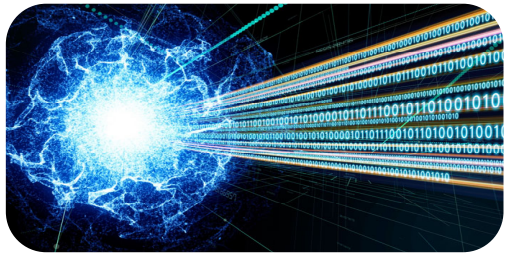
Data Science (DS)
consecutive for IN/SC BS
go.epfl.ch/master-DS

Cyber Security (Cyber)
consecutive for IN/SC BS
go.epfl.ch/master-cyber

Cross-School Programs

presented separately

Neuro-X (STI-SV-IC)
consecutive for SC BS



Quantum Science and Engineering (IC-STI-SB)
application for IN/SC BS

MSc in Computer Science with Specialization in Teaching in collaboration with HEP-VD

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

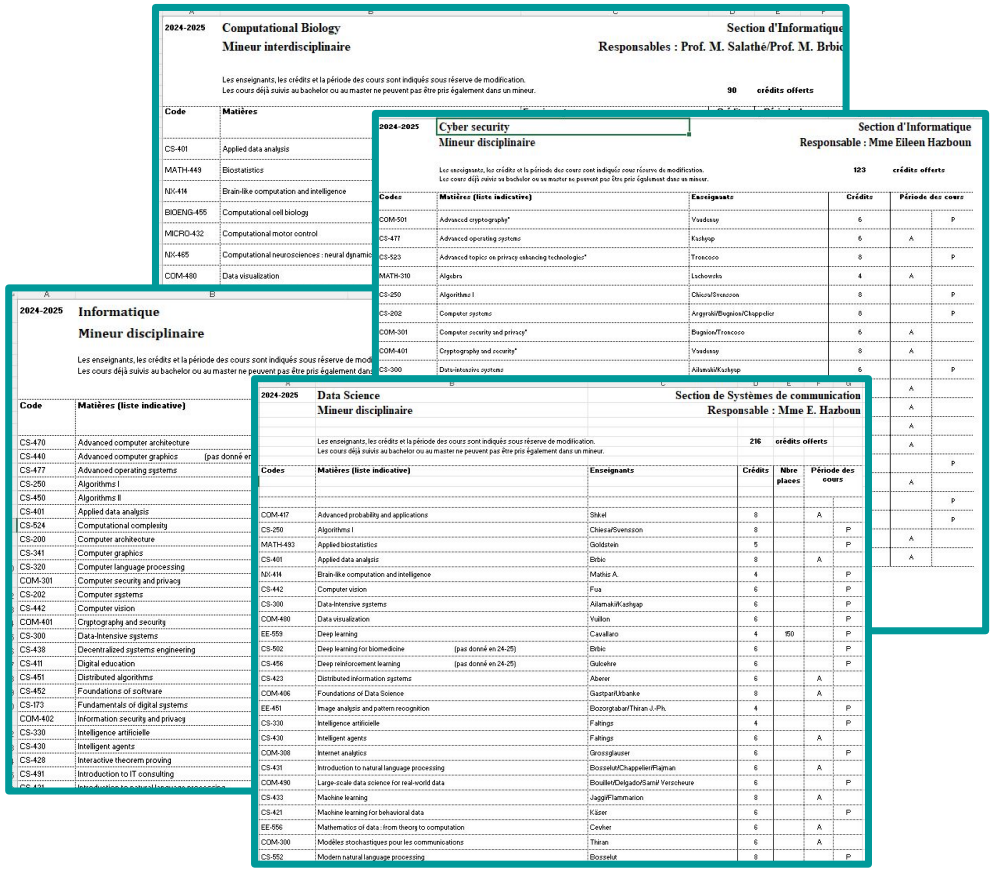
The program consists of 120 + 9 ECTS:

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

For students in other sections: Minors offered by IC

go.epfl.ch/IC-master-minors

- We also offer several minors. This can be a very good option if you are hesitant to change section (field of study).
- Condition: min 30 ECTS from a list of predefined courses in:
  - Computer Science
  - Data Science
  - Cyber Security
  - Computational Biology



2024-2025 Computational Biology — Section d'Informatique
Mineur interdisciplinaire — Responsables : Prof. M. Salathé/Prof. M. Brbic
Les enseignants, les crédits et la période des cours sont indiqués sous réserve de modification.
Les cours déjà suivis au bachelor ou au master ne peuvent pas être pris également dans un mineur.
90 crédits offerts

Code	Matières
CS-401	Applied data analysis
MATH-449	Biostatistics
NX-414	Brain-like computation and intelligence
BIOENG-455	Computational cell biology
MICRO-432	Computational motor control
NX-465	Computational neurosciences : neural dynamics
COM-480	Data visualization

2024-2025 Cyber security — Section d'Informatique
Mineur disciplinaire — Responsable : Mme Eileen Hazboun
Les enseignants, les crédits et la période des cours sont indiqués sous réserve de modification.
Les cours déjà suivis au bachelor ou au master ne peuvent pas être pris également dans un mineur.
123 crédits offerts

Codes	Matières (liste indicative)	Enseignants	Crédits	Période des cours	
COM-501	Advanced cryptography*	Vaudenay	6		P
CS-477	Advanced operating systems	Kuzhuga	6	A	
CS-523	Advanced topics on privacy-enhancing technologies*	Troncoso	8		P
MATH-310	Algebra	Lschowitz	4	A	
CS-250	Algorithms I	Chiesa/Troncoso	8		P
CS-202	Computer systems	Argyraki/Bugnion/Chappelier	8		P
COM-301	Computer security and privacy*	Bugnion/Troncoso	6	A	
COM-401	Cryptography and security*	Vaudenay	8	A	
CS-300	Data-intensive systems	Ailamaki/Kashyap	6		P

2024-2025 Informatique
Mineur disciplinaire
Les enseignants, les crédits et la période des cours sont indiqués sous réserve de modification.
Les cours déjà suivis au bachelor ou au master ne peuvent pas être pris également dans un mineur.

Code	Matières (liste indicative)
CS-470	Advanced computer architecture
CS-440	Advanced computer graphics (pas donné en 24-25)
CS-477	Advanced operating systems
CS-250	Algorithms I
CS-450	Algorithms II
CS-401	Applied data analysis
CS-524	Computational complexity
CS-200	Computer architecture
CS-341	Computer graphics
CS-320	Computer language processing
COM-301	Computer security and privacy
CS-202	Computer systems
CS-442	Computer vision
COM-401	Cryptography and security
CS-300	Data-intensive systems
CS-438	Decentralized systems engineering
CS-411	Digital education
CS-451	Distributed algorithms
CS-452	Foundations of software
CS-173	Fundamentals of digital systems
COM-402	Information security and privacy
CS-330	Intelligence artificielle
CS-430	Intelligent agents
CS-428	Interactive theorem proving
CS-491	Introduction to IT consulting

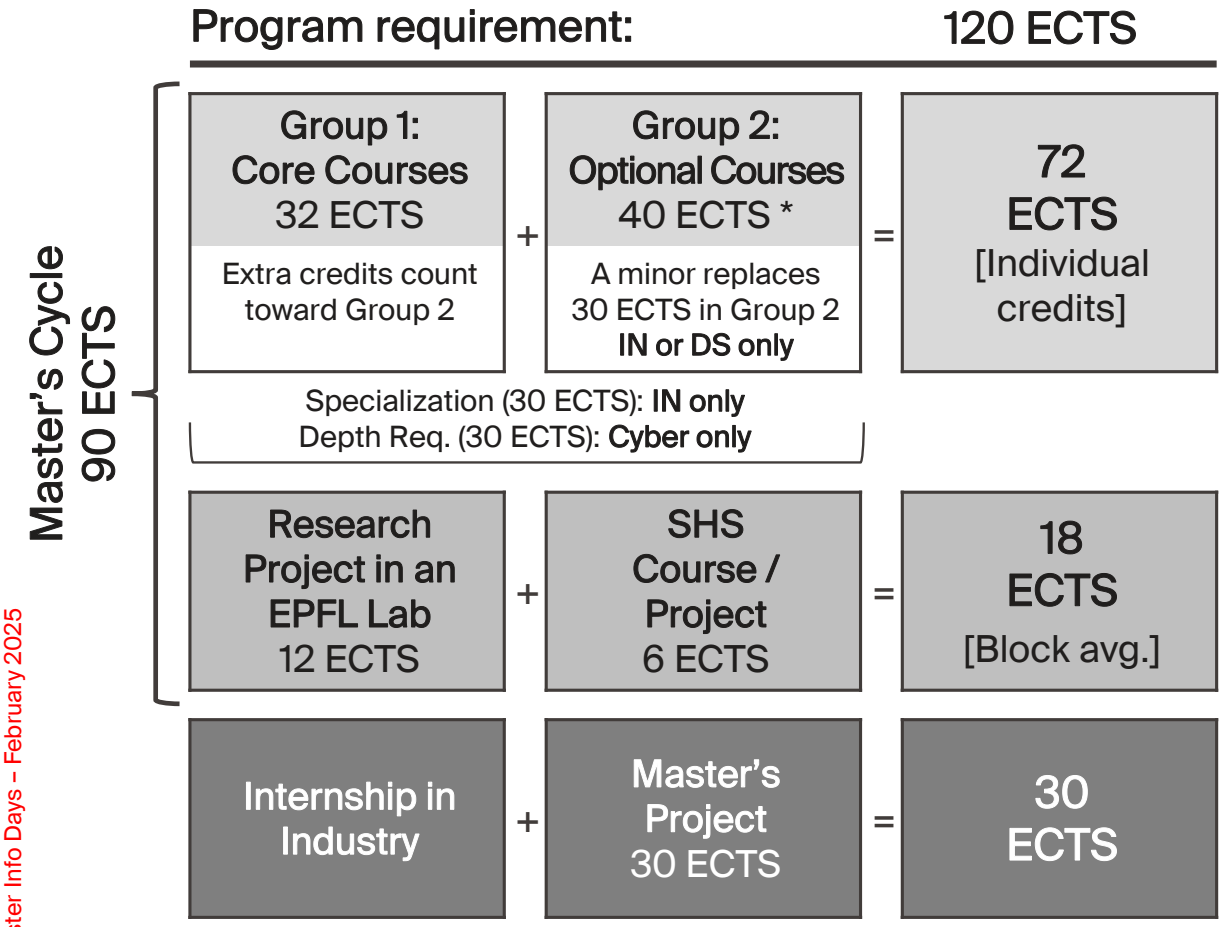
2024-2025 Data Science — Section de Systèmes de communication
Mineur disciplinaire — Responsable : Mme E. Hazboun
Les enseignants, les crédits et la période des cours sont indiqués sous réserve de modification.
Les cours déjà suivis au bachelor ou au master ne peuvent pas être pris également dans un mineur.
216 crédits offerts

Codes	Matières (liste indicative)	Enseignants	Crédits	Nbre places	Période des cours	
COM-417	Advanced probability and applications	Shkel	8		A	
CS-250	Algorithms I	Chiesa/Svensson	8			P
MATH-493	Applied biostatistics	Goldstein	5			P
CS-401	Applied data analysis	Brbic	8		A	
NX-414	Brain-like computation and intelligence	Mathis A.	4			P
CS-442	Computer vision	Fua	6			P
CS-300	Data-intensive systems	Ailamaki/Kashyap	6			P
COM-480	Data visualization	Vuillon	6			P
EE-559	Deep learning	Cavallaro	4	150		P
CS-502	Deep learning for biomedicine (pas donné en 24-25)	Brbic	6			P
CS-456	Deep reinforcement learning (pas donné en 24-25)	Gulcehre	6			P
CS-423	Distributed information systems	Aberer	6		A	
COM-406	Foundations of Data Science	Gastpar/Urbanke	8		A	
EE-451	Image analysis and pattern recognition	Bozorgtabar/Thiran J.-Ph.	4			P
CS-330	Intelligence artificielle	Faltings	4			P
CS-430	Intelligent agents	Faltings	6		A	
COM-308	Internet analytics	Grossglauser	6			P
CS-431	Introduction to natural language processing	Bosselut/Chappelier/Flaman	6		A	
COM-490	Large-scale data science for real-world data	Bouillet/Delgado/Sam/ Verscheure	6			P
CS-433	Machine learning	Jaggi/Flammarion	8		A	
CS-421	Machine learning for behavioral data	Käser	6			P
EE-556	Mathematics of data : from theory to computation	Cevher	6		A	
COM-300	Modèles stochastiques pour les communications	Thiran	6		A	
CS-552	Modern natural language processing	Bosselut	8			P

Structure of the MS programs in IC:

- Computer Science (IN)
- Data Science (DS)
- Cyber Security (Cyber)

Structure for Computer Science (IN), Data Science (DS), Cyber Security (Cyber) Master's programs



** If no minor is chosen, up to 15 ECTS may be taken outside the IC MS study plans.*

Optional for IN or DS:

- Computer Science → choose between a **Specialization** OR a **Minor** (not possible both).
- Data Science → can only choose a **Minor** (NO Specialization).

Mandatory:

- Cyber Security → Must fulfill **Depth Requirement** and an **exchange semester** at ETHZ (NO Minor or Specialization).

Courses outside the IC Master's study plan (IN, DS, Cyber)

- Max credits authorized: 15 ECTS → partially satisfies Group 2 Options.
- Includes:
  - EPFL Master's courses from other sections
  - EPFL Doctoral courses
  - UNIL-HEC (Faculty of Business and Economics) courses
- Students enrolled in a minor cannot take courses outside their MS study plan, except for CS- and COM- codified courses given by IC.
- CS- and COM- codified courses listed in the IC Master's study plans (IN, DS, Cyber) do not count towards the 15 ECTS limit and may be taken without authorization.
- In general, Bachelor's level courses cannot be taken during the Master's program.

Computer Science, Data Science & Cyber Security

Two Phases:

1. Master's cycle – 90 ECTS
2. Master's project/thesis – 30 ECTS → Total: 120 ECTS

Master's Cycle:

- Key differences between the 3 programs: Choice and focus of Group 1 Core Courses (32 ECTS) and the depth requirement + exchange semester at ETHZ for Cyber Security.
- Group 2 Optional courses (40 ECTS) largely shared across the 3 programs.
- Research project (EPFL lab, 12 ECTS) + SHS Course & Project (6 ECTS) → 18 ECTS
- Recommended: 30 ECTS per semester → 3 semesters for completion.
- Max duration: 6 semesters.

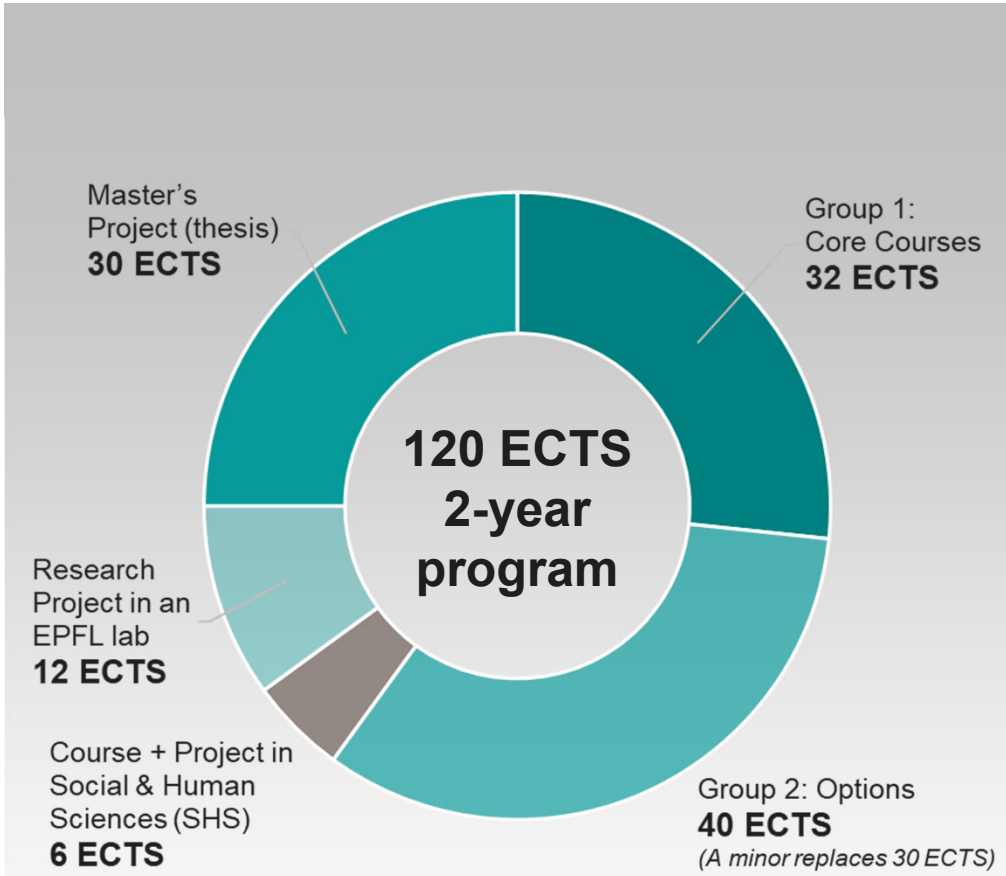
Internship & Master's Project:

- Internship: 8-week summer or 6-month semester (may be combined with the Master's project at the end of the MS cycle). A 6-month internship during a semester is a sabbatical (no courses in parallel) and does not count toward the 6-semester max duration of the MS cycle.
- Master's project: Can be completed in industry. May also be carried out at EPFL or another university in Switzerland/abroad if mandatory internship requirement has been met beforehand.

Which Master's program in IC is the right fit for me?

	Master's in Computer Science	Master's in Data Science	Master's in Cyber Security
Focus	Broad understanding of Computer Science with specialization tracks.	Extracting insights from large datasets using statistical and computational methods.	Understanding and mitigating security threats, protecting information systems
Curriculum	Flexible course selection across multiple Computer Science domains.	Core data science courses with electives to deepen specific interests.	Mandatory exchange semester at ETHZ; focus on "depth" security courses.
Choosing the right program	Best for those seeking a broad CS foundation with the flexibility to explore various subfields.	Suitable for those interested in extracting insights from data and developing ML models.	Ideal for those passionate about protecting systems and data from cyber threats.

EPFL



Overview MSc in Computer Science

Master of Science in Computer Science

- The Computer Science Master's provides a broad theoretical and practical foundation in computing, covering algorithms, software engineering, cybersecurity, machine learning, systems, etc., enabling flexibility across fields.
- Offers four broad specializations tracks:
  - AI & Data Science
  - Computer Systems
  - Foundations of Computing
  - Cyber Security
- Students may opt for a minor (30 ECTS) offered by another section as an alternative to a specialization to compliment their main discipline.
- High demand for computer science graduates across industries and roles.

Master of Science in Computer Science

Reform of the MSc Computer Science

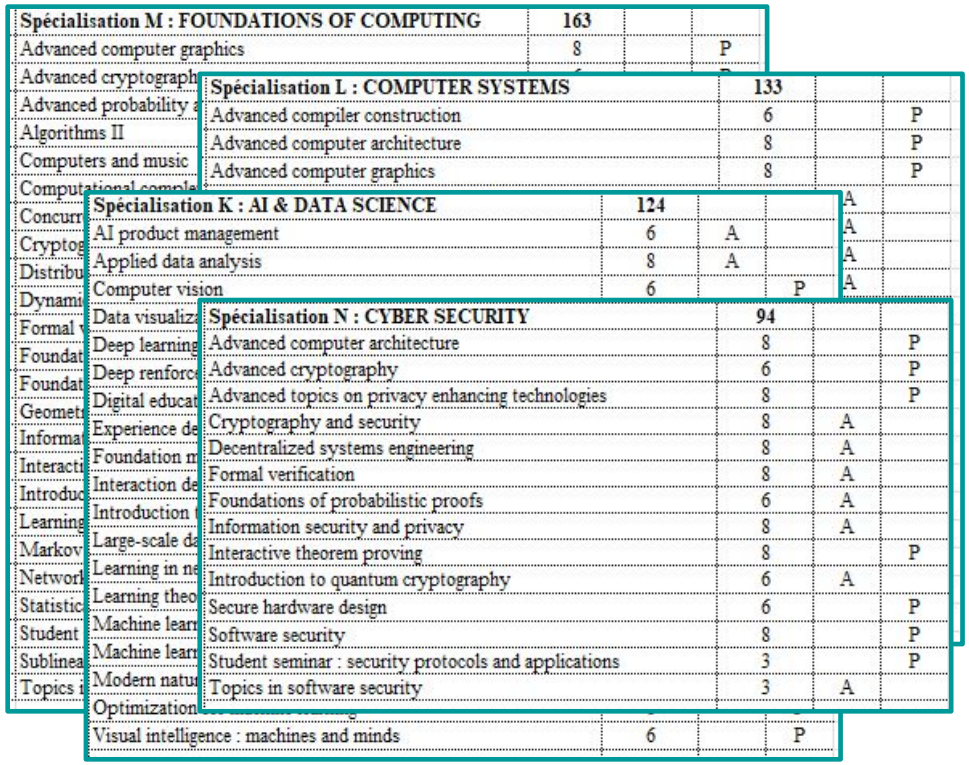
Effective from the 2025-2026 Academic Year

- This reform applies only to NEW students starting their studies in the Fall 2025 semester. Students who started before Fall 2025 are subject to the study plan that was in force when they began their Master's studies.
- To meet the 32 ECTS Core course requirement (Group 1), students must pass four 8-credit courses from four different IC research domains, to ensure a broad foundation.

Group 1: Core courses (min. 32 credits)	IC Domains	Sem.	cr
Machine learning	AIML	fall	8
Optimization for machine learning	AIML	spring	8
Algorithms II	ATCS	fall	8
Advanced computer architecture	CAIS	spring	8
Advanced multiprocessor architecture	CAIS	fall	8
Decentralized systems engineering	DC	fall	8
Distributed algorithms	DC	fall	8
Applied data analysis	DMIR	fall	8
Systems for data mgmt. & data science	DMIR	spring	8
Advanced computer graphics	GR	spring	8
Geometric computing	GR	fall	8
Advanced probability and applications	ICT	fall	8
Foundations of data science	ICT	fall	8
Information theory and coding	ICT	fall	8
Modern natural language processing	NLP	spring	8
Advanced networks	OSNET	fall	8
Mobile networks	OSNET	fall	8
Modern digital communication	OSNET	fall	8
Principles of computer systems	OSNET	fall	8
Formal verification	PLFM	fall	8
Interactive theorem proving	PLFM	spring	8
Statistical signal & data processing	SIP	spring	8
Advanced topics on privacy enhancing tech.	SP	spring	8
Cryptography and security	SP	fall	8
Information security and privacy	SP	fall	8
Software security	SP	spring	8

At least 4 courses (8 ECTS each) in **4 IC domains**

Specializations for the Master's program in Computer Science



Spécialisation M : FOUNDATIONS OF COMPUTING	163		
Advanced computer graphics	8		P
Advanced cryptography			
Advanced probability			
Algorithms II			
Computers and music			
Computational complexity			
Concurrency theory			
Cryptography and security			
Distributed algorithms			
Dynamic			
Formal			
Foundat			
Foundat			
Geomet			
Informa			
Interacti			
Introduc			
Learning			
Markov			
Network			
Statistic			
Student			
Sublinea			
Topics			

Spécialisation L : COMPUTER SYSTEMS	133		
Advanced compiler construction	6		P
Advanced computer architecture	8		P
Advanced computer graphics	8		P

Spécialisation K : AI & DATA SCIENCE	124		
AI product management	6	A	
Applied data analysis	8	A	
Computer vision	6		P
Data visualiz			
Deep learning			
Deep reinforc			
Digital educat			
Experience de			
Foundation n			
Interaction de			
Introduction			
Large-scale da			
Learning in ne			
Learning theo			
Machine learn			
Machine learn			
Modern natu			
Optimization			
Visual intelligence : machines and minds	6		P

Spécialisation N : CYBER SECURITY	94		
Advanced computer architecture	8		P
Advanced cryptography	6		P
Advanced topics on privacy enhancing technologies	8		P
Cryptography and security	8	A	
Decentralized systems engineering	8	A	
Formal verification	8	A	
Foundations of probabilistic proofs	6	A	
Information security and privacy	8	A	
Interactive theorem proving	8		P
Introduction to quantum cryptography	6	A	
Secure hardware design	6		P
Software security	8		P
Student seminar : security protocols and applications	3		P
Topics in software security	3	A	

Four broad specializations (30 ECTS),

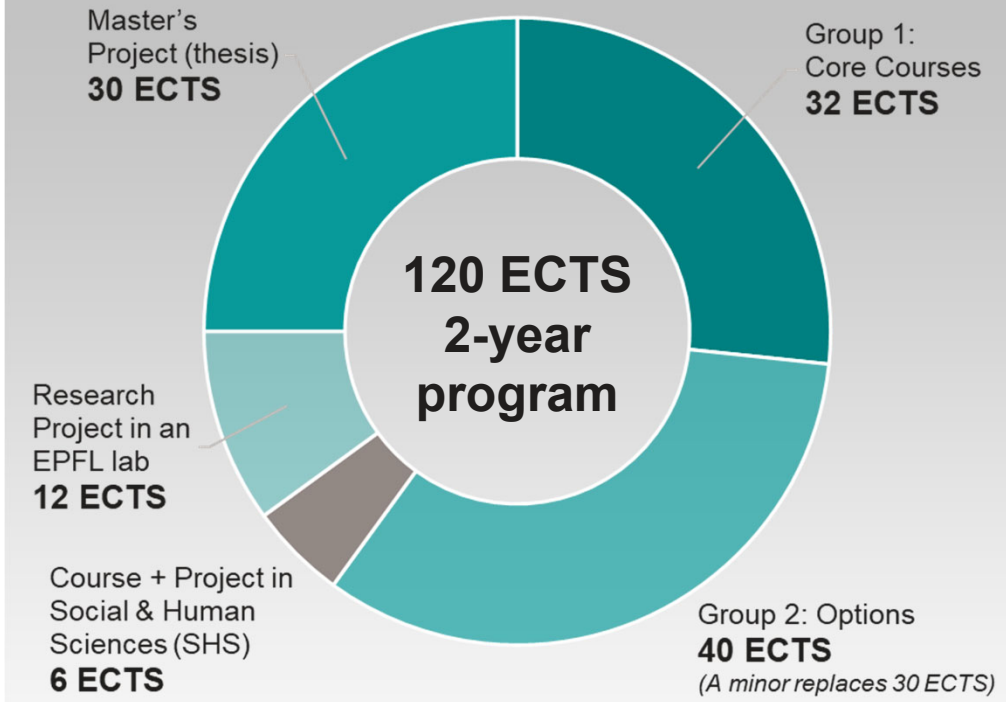
from a list of Group 1 and/or Group 2 courses, to deepen your knowledge in your chosen discipline.

- **AI & Data Science:** learn how to build models over large datasets.
- **Computer Systems:** Learn how to create complex systems, e.g., code complex software or design hardware.
- **Foundations of Computing:** learn how to think deeply about theoretical problems.
- **Cyber Security:** learn how to find vulnerabilities in systems & protect them.

Note:

- Students may choose either a Specialization OR a Minor - not possible to select both.
- Students may only register for and claim one specialization on their Diploma Supplement.

EPFL



Overview MSc in Data Science

Master of Science in Data Science

- Data Science is a field of computer science that applies scientific methods, algorithms, and technologies to extract insights from structured and unstructured data. It integrates disciplines such as mathematics, computer science, and information theory to analyze and interpret data effectively.
- The Master's in Data Science program focuses on data analysis, machine learning, and statistical methods, offering an interdisciplinary approach that combines these fields.
- Students develop expertise in data-driven decision-making and mathematical modeling, which are essential for industries like finance, healthcare, and technology.
- The curriculum includes core data science courses along with electives to deepen expertise in specific areas.
- Students may also pursue a minor in another discipline to complement their studies.
- This program equips graduates with the skills needed for careers as data scientists, AI researchers, or professionals in data-driven industries.

Master of Science in DATA SCIENCE

- Core Courses (32 ECTS):
  - Students must pass at least four core courses, each worth 8 ECTS (Group 1).
- Optional Courses (40 ECTS):
  - Chosen from the MS DS study plan (Group 2).

  Alternatives:
  - Minor (30 ECTS) in another section or the Cyber Security Minor offered by the IN section.

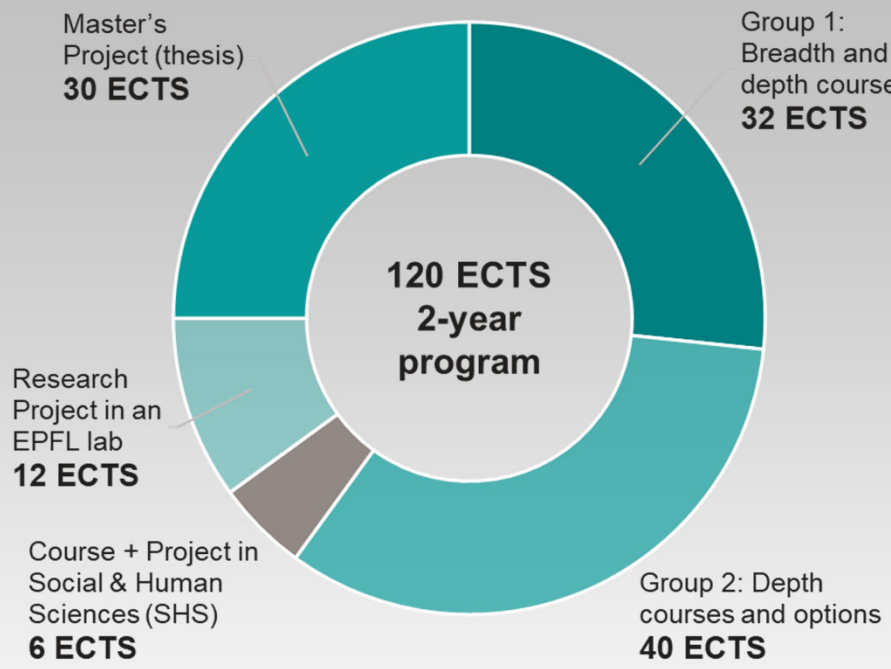
  or
  - Max 15 ECTS from courses outside the DS study plan.

This program is focused on data science and does not offer specialization tracks.

Group 1: Core courses (min. 32 credits)	Sem.	cr
Algorithms II *Algorithms, Complexity, Graph Theory, Optimization, Computational Efficiency*	fall	8
Applied data analysis *Data Cleaning, Visualization, Interpretation, Feature Engineering, Exploratory Analysis*	fall	8
Foundations of data science *Probability, Statistics, Inference, Bayesian Methods, Data Models*	fall	8
Information Security and Privacy *Cryptography, Cybersecurity, Data Protection, Encryption, Privacy-Preserving Technique*	fall	8
Machine learning *Supervised & Unsupervised Learning, Neural Networks, Model Evaluation, Generalization*	fall	8
Modern natural language processing *Deep Learning, Text Processing, Transformers, Language Models, Sentiment Analysis*	spring	8
Optimization for machine learning *Gradient Descent, Convex Optimization, Regularization, Loss Functions, Convergence*	spring	8
Systems for data mgmt. & data science *Databases, Big Data, Distributed Systems, Data Warehousing, Scalable Processing*	spring	8

⬆ **At least 4 courses** (8 ECTS each)

EPFL



Overview MSc in Computer Science - Cyber Security

Master of Science in Computer Science – Cyber Security

- Jointly offered by EPFL and ETHZ, this program provides access to courses, research, and expertise from both institutions, offering a comprehensive perspective on cyber security.
- The curriculum covers cryptography, formal methods, systems security, hardware, and network & wireless security. It integrates theoretical foundations with applied knowledge, preparing students to tackle security challenges in networks, cyber-physical systems, and emerging computing technologies.
- Students enrolled at EPFL must begin their first semester at EPFL.
- One semester must be spent at ETHZ, where students can take courses totaling 20–35 credits. During the exchange semester, students are enrolled at EPFL and ETHZ, but only pay tuition fees at EPFL.
- The program is specialized in cyber security, with no additional minors or specializations.

Master of Science in Computer Science – Cyber Security

- The program follows the same structure as other IC Master's programs:
  - Group 1: Breadth & Depth Courses (32 ECTS)
  - Group 2: Depth & Optional Courses (40 ECTS)
- Depth Requirement:
  - To fulfill the depth requirement, at least 30 ECTS must come from security courses (marked as "depth"). These courses can be taken at EPFL or ETHZ and may count for Group 1 or Group 2.
- Research Project (12 ECTS) in Cyber Security:
  - Can be completed at an EPFL lab or ETHZ during the exchange semester.
- Master's Project in Cyber Security:
  - Can be completed in industry. If the mandatory internship is met beforehand can also be done at EPFL, ETHZ, or another university.
  - Must be supervised by an EPFL IC faculty member.

Group 1: Breadth & Depth Courses (min 32 credits)		Sem.	cr
Advanced computer architecture		spring	8
Advanced networks		fall	8
Adv. topics in privacy enhancing tech.	depth	spring	8
Algorithms II		fall	8
Cryptography and security	depth	fall	8
Decentralized systems engineering	depth	fall	8
Distributed algorithms		fall	8
Information security and privacy	depth	fall	8
Interactive theorem proving	depth	spring	8
Machine learning		fall	8
Software security	depth	spring	8
Systems for data mgmt. & data science		spring	8
+ ETHZ courses counting as breadth			

Group 2: Depth & Optional Courses (min 40 credits)		Sem.	cr
Advanced cryptography	depth	spring	6
Formal verification	depth	fall	8
Foundations of probabilistic proofs	depth	fall	6
Introduction to quantum cryptography	depth	fall	6
Number theory II.c - Cryptography	depth	spring	5
Secure hardware security	depth	spring	6
Seminar: security protocols & apps.	depth	spring	3
Topics in software security (not given	depth	spring	3
+ EPFL/ETHZ optional & ETHZ courses counting as depth			

Notes:

- At least 30 ECTS of "depth" security courses must be taken at EPFL or ETHZ and may count for Group 1 or Group 2.
- 20-35 credits must be completed at ETHZ during the exchange semester (this may include the 12-ECTS research project.)

Minors

Minors

- A minor consist of core or optional courses from another section.
- Equivalent to 30 ECTS, replacing 30 ECTS in Group 2 (options).
- IC Master's students cannot enroll in IC minors (IN, DS, Cyber).
- Only exception: Data Science students who may take the Cyber Security minor.
- Cyber Security students cannot enroll in any minors.
- Registration deadline: Beginning of 2nd semester of Master's cycle.
- Choose carefully – dropping a minor may affect credit recuperation.

Some examples:

- Computational Biology
- Computational Science & Eng.
- Cyber Security (DS only)
- Digital Humanities, Media and Society
- Engineering for Sustainability
- Financial Engineering
- Imaging
- Management, Technology & Entrepreneurship
- Mathematics
- Neuro-X
- Quantum Science & Eng.
- *and many more ...*

More information:
go.epfl.ch/IC-master-minors

Mandatory internship

Industry Internships

go.epfl.ch/IC-internships

- Mandatory for all EPFL MS students since 2010.
- Gain valuable work experience, develop and refines your skills.
- Explore a career path.
- Can be done in Switzerland or abroad.
- Internship models
  - Short, 8 weeks during the summer.
  - Long, 6 months during a semester.
  - Integrated with your Master's Project (26 weeks), at the end of the Master's cycle.

Internships: Host testimonials

"Since we started hosting several interns as part of the EPFL internship program, we have been pleased with these students' hard work and contributions. I always enjoy interacting with these bright young students. We look for unique views these interns can bring. I hope they see IBM Research as a very exciting place to work."

Giovanni Pacifici, IBM T.J. Watson

"EPFL has been doing an excellent job at providing us the best internship candidates for our needs. Everything from selecting the candidates to managing administrative issues has been handled smoothly and efficiently, allowing us to focus on the students and the work to be done."

Stein Lundby, Qualcomm Inc.

Considering a PhD after your Master's ... plan ahead!

- An industry internship is mandatory for all EPFL MS students enrolled in academic programs culminating in the title of engineer.
- Internships must be completed in a company or, at the very least, a non-academic organization (e.g., INRIA, CERN , IBM Research, Max Planck Institute).
- Internships at universities or educational institutions are strictly prohibited.
- If you plan to pursue a PhD, we recommend:
  1. Completing an industry internship (8-week summer or 6-month semester) during your Master's cycle.
  2. Carrying out your Master's project at the end of your Master's cycle in a lab at EPFL or another university in Switzerland or abroad.

Life after EPFL

COMPUTER SCIENCE

What I liked the most was everyone's commitment, the experience of being there with all these motivated people.

Acacio Da Silva Martins
Senior Software Engineer, AdNovum

DATA SCIENCE

I feel like I have a tailored, personalized master's degree with exactly the courses I wanted. It's the dream scenario.

Emma Lejal Glaude
Data, Analytics and AI Engineer, Swisscom

CYBER SECURITY

The teaching team is really great, it's so motivating to be working alongside the very best and life on campus is excellent. There is some much to do!

Mathilde Aliénor Raynal
PhD student, EPFL Doctoral program in computer and communication sciences

Admission

For IC BS students: Choice of Master's program in IC (IN, DS, or Cyber)

- Upon successful completion of your Bachelor, you are directly admitted to a Master's program in IC. External students have to pass through a highly selective application process.
- You can continue your studies in one of the three consecutive IC Master's programs: IN, Cyber, or DS. The choice is made via the FRAC (Academic Registration Form).
- For holders of a Bachelor SC, the Master Neuro-X is consecutive. Registration is done via the FRAC. For Bachelor IN students, an application is required.
- For the Quantum Science and Engineering Master's degree, an application is required.
- Deadline for change of Master's degree in IC (e.g. IN -> DS, Cyber -> IN): end of 1st semester of Master's studies. In this case, please contact the Section.
- It is possible to take a gap year between the Bachelor's and Master's degrees, and re-enrol in one of our consecutive Master's degrees, if other studies have not been undertaken.

For BS students from other sections: Admission bachelor courses

- If you are thinking of changing your field of study, prepare by taking these BS courses during your bachelor.
- Admission is very competitive and selective.

- For Computer Science
  - Software Construction, 8 cr, 2nd year, fall
  - Algorithms I, 8 cr, 2nd year, spring
  - Computer systems, 8 cr, 2nd year, spring
- For Cyber Security
  - Software Construction, 8 cr, 2nd year, fall
  - Computer Systems, 8 cr, 2nd year, spring
  - Computer Security and Privacy, 6 cr, 3rd year, fall
  - Algebra, 4 cr, 3rd year, fall (except for MA, PH, & CH)
- For Data Science
  - Software construction, 8 cr, 2nd year, fall
  - Algorithms I, 8 cr, 2nd year, spring
  - Data-Intensive Systems, 6 cr, 3rd year, spring
  - Prob Stats, 6 cr, 2nd year, fall (only external EPFL candidates)

BS students from other sections: What happens if I do not take the admission courses during my bachelor?

- Should you be admitted, your admission to the Master's program will be conditional on acquiring the additional credits.
- Priority must be given to acquiring these credits during your first-year of study.
- The credits will not count towards your Master's degree.
- You may take Master's courses in parallel with your admission conditions, but it will be your responsibility to deal with schedule overlaps, etc.
- Admission conditions are non-negotiable and cannot be modified.
- It's best to take these courses during your Bachelor, if possible.

BS students from other sections: How to apply?

Application deadline:
➢ March 31, 2025

go.epfl.ch/master-application

Admission to the IC Master's programs (IN, DS, Cyber) is **highly competitive.** There is no automatic acceptance; an admissions committee evaluates each application and makes the final decision.

Key criteria include:

- An **excellent GPA in the first two years of your Bachelor's studies.**
- An **excellent GPA in core mathematics courses,** including Linear Algebra, Calculus (Analysis), Probability & Statistics, etc.
- An **excellent GPA in courses related to IC Master's programs**, including ICC, Programming, or IC BS admission courses.
- A well-written **Statement of Purpose** (not with ChatGPT!), that clearly states your motivation and highlights any relevant projects, internships, skills, or any other elements that indicate your potential to succeed in your target field of study.

Administrative Contacts

Your contacts in the sections

Prof. Katerina Argyraki
Associate Dean for Education

Prof. Karl Aberer
Director SC-DS

Prof. Mathias Payer
Director IN-Cyber

Eileen Hazboun
Deputy, all programs
eileen.hazboun@epfl.ch

Antonella Veltro
Master IN
antonella.veltro@epfl.ch

Carole Dauphin
Master SC-DS
carole.dauphin@epfl.ch

Jasmine Locatelli
Master Cyber
jasmine.locatelli@epfl.ch

Patricia Genet
Internships & PDM IC
patricia.genet@epfl.ch

Merci

École
polytechnique
fédérale
de Lausanne