Faculty Hour
Bachelor Program

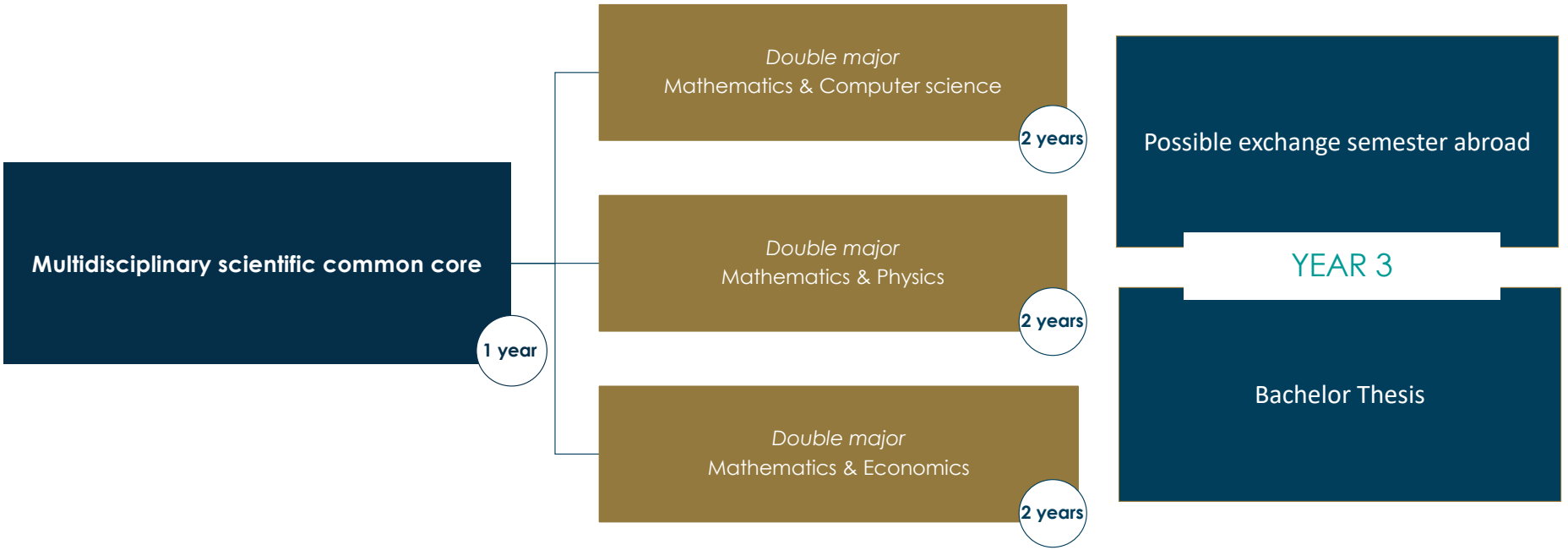
« Direction déléguée du programme Bachelor »

February 8, 2023

Bachelor Program

A CURRICULUM FOR TOP-LEVEL INTERNATIONAL AND FRENCH STUDENTS

3 YEARS



Typical semester in the Bachelor Program

6 to 7 course units (30 to 36 ECTS)

- 2 in Mathematics
- 2 in Major: Economics, Computer Sciences or Physics
- 1 or 2 Methodology or Elective
- 1 Transverse

Elective: science course not in a mandatory core

Methodology: Programming, Practice, Labs, …

Transverse: Humanities, Languages, Personal Development (PDV), Sports …

BX2023: Students per double-major

Double-major **Mathematics** / **Economics**: 28 students

9 students take the minor in Computational Mathematics

Double-major **Mathematics** / **Physics**: 34 students

8 students take the minor in Chemistry

4 students take the minor in Biology

Double-major **Mathematics** / **Computer Science**: 48 students (2 students repeated year 2)

2 student takes the minor in Chemistry

6 students take the minor in Biology

BX2024 : Students per double-major

Double-major **Mathematics / Economics**: 27 students

6 students taking the minor in Computational Mathematics
1 student taking the minor in Chemistry
1 student taking the minor in Biology

Double-major **Mathematics / Physics**: 55 students

7 students taking the minor in Chemistry (one may leave the program soon)
4 students taking the minor in Biology

Double-major **Mathematics/Computer Science**: 68 students

1 student taking the minor in Chemistry
9 students taking the minor in Biology

Income : Selection Process

One hour oral interview

Two reviews of application file

Yield session

Admitted

2021/2022: 1075 processable applications received overall of which 278 admitted.
Finally, 146 students are joining the Bachelor Program in September (Y1, 2, 3)

An international class

Class of 2025

34%
Female students

38
Countries represented

63%
International students

29%
Minors

71 %
International and dual national students

113
High Schools

14%
AEFE Graduates

44%
Francophones (even lower proportion in BX24 and BX23)

Financial Aid

- **Need-blind** admission process

- Several types of **financial aid**:

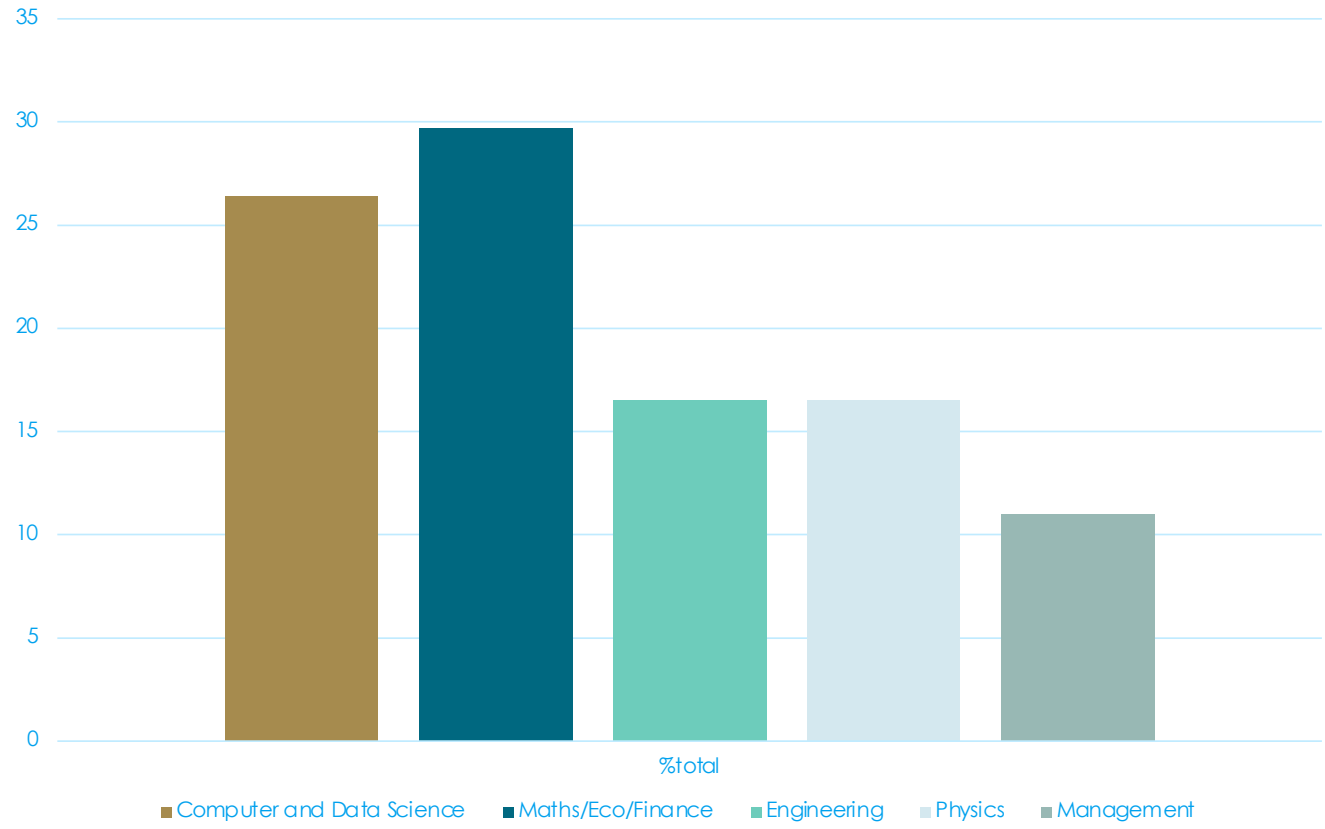
  For students admitted ‘with honors’:
  ⇒ Tuition fee waivers
  ⇒ Excellence scholarships (FX)

  For all students:
  ⇒ Interest free loans (FX)
  ⇒ Living costs scholarships (FX)
  ⇒ Women in science scholarships (FX)

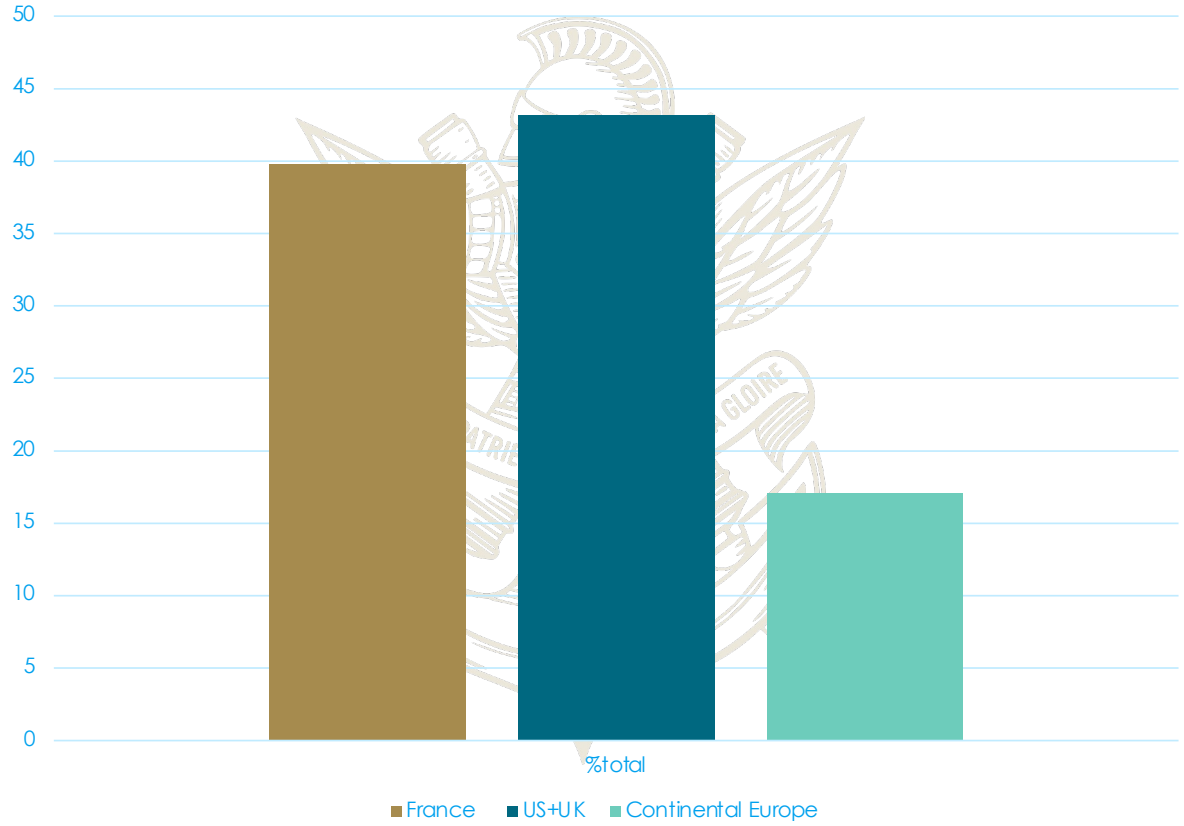
- Further scholarships for certain students (AEFE, I

36% of Bachelor students receive at least one type of financial aid from l’X or FX

Outcomes: Fields of studies BX2021 and BX2022



Outcomes: locations of graduate studies BX2021 and BX2022



Graduate programs followed by our alumni

Support

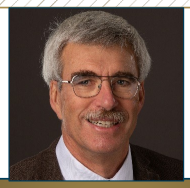
Bachelor Administration Team	Admissions, Financial Aid, Academic Support, Academic Counseling, etc.
Bachelor Human Development Team	Non-academic support, Personal Development, Sports, etc.
Academic Advisors (+ Referent Instructors, Mobility Advisors)	Academic Content, Admissions, Academic Councils (+validation of study programs abroad and research internship project)

BACHELOR PROGRAM

ADMISSION AND STUDENT SERVICES TEAM

Chrystelle LEGRAND
Bachelor Program Director

Catherine ELLIS
Bachelor Program Associate Director



Patrick LE TALLEC
Bachelor Program Dean

Executive Assistant

ACADEMIC ADVISORS

Isabelle Badrinath –
Director of Operations

ADMISSIONS

Emmanuelle CHABERT
Admissions Manager

Maxine LEYSENS
Admissions Officer

ACADEMIC SUPPORT

Academic Support Manager

Alice VINCENT
Academic Support Officer

ACADEMIC COUNSELING

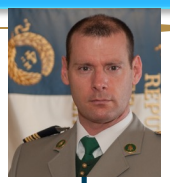
Academic Officer – Year 1

Nadège DUFORT
Academic Officer – Year 2

Academic Officer – Year 3

TheTeam DFHM Bachelor

Colonel
Thibault Capdeville



Medical Center
Dr Marie de Langavant

Counseling service
Anne Mortureux

Bachelor
Mr Destremau

Coach **Leila** Ali-Messaoudi

Coach **Eddy** Alvarez

Coach **Tony** Antoun

Coach **Jeremy** Lefebvre

Coach **Fernando** Rosa

Bachelor coaches

Support students in all aspects of out-of-the-classroom activities

In general:

- ✓ Give sport lessons on Tuesdays (and every evening)
- ✓ Foster a vibrant community life / head of houses
- ✓ Personal interviews with students on a regular basis
- ✓ Offer personal development activities / sessions (“healthy”, group volunteering, speech contest, etc.)
- ✓ Provide advice for a smooth transition from home / country to France and l’X
- ✓ Ready to help in any emergency situation (24/7 duty)

In liaison with the instructors:

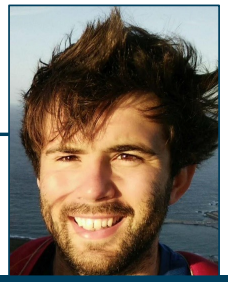
- ✓ To be contacted in case students are absent

BACHELOR PROGRAM ACADEMIC ADVISORS

Yukio Koriyama
Economics (all years)

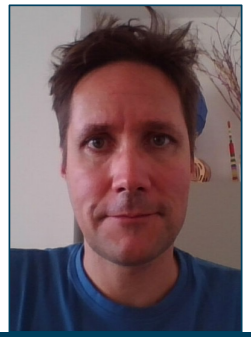
PROGRAM CONTENT
ADVISING STUDENTS
ADMISSIONS COMMITTEES
ACADEMIC COUNCILS
INFORMATION SHARING

Lorenzo Fantini
Mathematics (1st year)

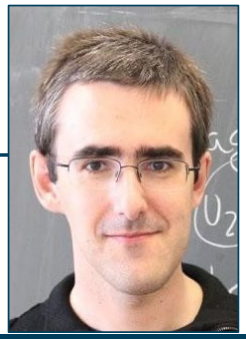


Giovanni Conforti
Mathematics (2nd year)

Annalaura Stingo
Mathematics
(3rd year)



Emmanuel Haucourt
Computer Science
(all years)



Olivier BLAZY
Computer Science
(all years)

Jean-Marc Allain
Physics (all years)

Blaise Goutéraux
Physics (all years)

BACHELOR PROGRAM

MOBILITY ADVISORS

Olivier Bournez
Computer Science

Geoffrey Barrows
Economics

Gael Raoul
Mathematics

Michel Jabbour/ Jean Eric Wegrowe
Physics

BACHELOR THESIS REFERENT INSTRUCTORS

Kleber Carrapatoso
Pure Mathematics

Jean Eric Wegrowe
Physics

Mazyar Mirrahimi
Applied Mathematics

Sophie Ramananarivo
Mechanics

Geoffrey Barrows/ George Lukyanov.
Economics

Eric Goubaullt / Sergio Mover
Compter Science

Christophe Le Clainche
Biology

Audrey Auffrant
Chemistry

Student Representatives 2022-2023

One representative from each year attends Academic Councils

Two first-year representatives elected.

First-year student representatives (BX2025):
Johanna Gringe and **Alexander (Sascha) Rosenbaum**

Three second-year representatives elected. One rep for each double major.

Second-year student representatives (BX2024):
Mija PILKAITE for the double-major Math-CS ;
Tudor-Gabriel MOCIOI for the double-major Math-Physics ;
Sofi KIKNADZE for the double-major Math-Economics

Three third-year representatives. Same reps as in second year, unless resignations.

Third-year student representatives (BX2023):
Matea GJIKA for the double-major Math-CS ;
Jade RAKOTONDRADANO for the double-major Math-Physics ;
Mariam GEDENIDZE for the double-major Math-Economics

Bachelor Academic Support Office

scolarite.bachelor@listes.polytechnique.fr

- ✓ Registration Campaign
- ✓ Schedules
- ✓ Groups
- ✓ Final exams, make-up and remedial schedule

- ✓ Printing documents

notes-bachelors@polytechnique.fr

- ✓ Final Grades

- ✓ Course Surveys

Office in Grand Hall
Open from 8.30am to 5pm
(Friday 4.15pm)

Bachelor Program – Faculty seminar

Teaching in the Bachelor Program

Teaching in the Bachelor Program

Introduction

Learning Management Systems (LMS)

Syllabus

Exams

Grading

Absences

Student support

Instructor support, online tools (Latifa Berkous) and discussion.

Introduction

Science based program entirely taught in English. Good english proficiency required for all instructors

Multicultural audience and different expectations

Very young international students. Requires attention and clear rules. ***But are eager to work and to do well.***

Dense program : *keep your class within the required volume*

Look for a strong interaction between instructors and students : Polytechnique way

Active pedagogy encouraged : homework, hands on, quizzes, projects, labs, contacts with research labs

Learning Management Systems at Polytechnique

SYNAPSES *official shared reference system with*

public course description, knowledge assessment, exam organisation, time table, course location, enrollment, final grades

MOODLE *: where to inform and to exchange with the students of your course*

documents, slides exercice sheets, exam description, homeworks, questionnaires, intermediate grades, grading rational,..

Do not forget to put on Moodle your course work calendar, grading rational and final correspondence fable, such as

"Final Grade=Participation/8+HW/8+Quizzes/8 + Midterm/4 + Final*3/8"

Be careful, *access to your course moodle site could be visible to any student or staff on site (as default option). Check this and correct it if this is inappropriate (eg needs to hide previous tests or exam texts and solutions)*

User's manual for both systems on BACH100 moodle site

https://moodle.polytechnique.fr/course/view.php?id=15472

Course syllabus

*Must be published on **SYNAPSES** at beginning of class (now for spring semester)*

It includes:

1 Course description (with support textbooks)

2 Course objectives

3 Course prerequisites + recommended previous courses

4 Course content

5 Coursework and knowledge assessment components : take home exercices, in class assignments, group works, projects, quizzes, mid term exam, final exam,..

Course work and exams

Course work to amount for at least 50% of final grade for full semester class

Midterm exam if any to be organized in tutorial teaching slot by teaching team.

Final exams have a dedicated week at end of semester and must be announced in Synapses if planned

- *Final exam schedule defined by academic support*
- *One or two instructors or instructor's delegate to be present*
- *All projects to be finished and defended before exam week (to avoid massive work overload for students)*
- *In person exam is the norm. Online exams only if you can ensure very high level of monitoring (small groups, double camera, random questions among fellow students, ….)*
- *Open online books means open network, and possible chat.*

Be ready to explain your grades (possible grade appeal).

Grading

Final Course Grade for Bachelor are in letters (international standard)

LETTER GRADES	GPA	LETTER GRADE MEANINGS RELATING TO A COURSE'S ACADEMIC OBJECTIVES
A+	4,3	Objectives were surpassed and the student has gone above and beyond expectations.
A	4	Objectives were fully attained and the student has demonstrated particular capabilities during the course.
A-	3.7	Objectives were fully attained.
B+	3.3	Objectives were mostly attained.
B	3	Objectives were generally attained.
B-	2.7	Objectives were generally attained.
C	2	Objectives were partially attained with adequate knowledge to move on to more advanced work.
D	1	Objectives were minimally attained with persistent weaknesses.
E	0	Objectives were not attained.
F	0	Objectives were not attained as the student demonstrated no or little effort (e.g. numerous unexcused absences, failed to attend exams) and/or committed/attempted to commit an academic offense (e.g. cheating, plagiarism).

Grading

The way to the final grade : see grading guidelines

Objective is to have a course average of 3.6 *(between B+ and A-) once ultra weak students (E level) are removed*

Grade construction to be defined on moodle

Intermediate (coursework, midterm, quizzez, projects..) grades must be published on moodle (direct and only access to grades by students).

Numerical grades needed there for automatic calculation of final grade in moodle

Instructor has the free choice of scale in moodle (0/10 or 0/20 or 0/100 or 0/4.3) and of correspondance between their scale and letters :

0/4.3 scale gives a direct GPA correspondance with letters

Scale and typical correspondence table should be communicated to students

Instructor will be asked to send final grades to notes-bachelors@polytechnique.fr

Absences

Absences must be monitored for smaller classes (TP, TD, languages, HSS, etc.) Any local tool can be used by instructor.

Key to detect personal issues (interpersonal, behavior, "décrocheur", psychological, health. Legal obligation for minors

Thus, inform Barthélemy Destremeau if

- Two successive absences
- More than three absences in total (penalty if unexcused)

Excused absences are defined in academic handbook and validated by coaches (health, family emergency, school or administrative obligation) and list of excused asences accessible in real time on

https://partage.imt.fr/index.php/s/QbimxgaMiASrQP4
password - SuiviAbsences2022

Tutoring

Organized in all main courses for students facing difficulties (see Academic Advisors)

Sessions organized during evenings or Saturdays

A student must register to go. Once registered he must go (if not participation cancelled)

Tutors recruited or approved by department

Tutors help students on specific tasks, not replace instructor. They interact with the instructor and/or the academic advisor as much as needed and conversely.

Tutors help students understand the concepts by providing opportunities to practice, and to get feedback on that practice, by focusing the session on how to do the work.

See tutoring guidelines for more details.

Academics

Teaching organized in teams : a professor in charge + instructors + monitors +tutors.

Academic advisors and academic council : two key words

Mobility advisors : advise, validate, follow exchange semesters

Thesis referent instructors : supervise student research work

A whole bachelor team happy to help and support.

For more information

Academic Handbook

https://bit.ly/2RwYB5T

Your questions answered about:

- Grade appeals;
- Cheating and plagiarism;
- Difference between make-up and remedial exams,

and much more.

BACH100 on Moodle

https://moodle.polytechnique.fr/course/view.php?id=15472

E-learning Unit

elearning@polytechnique.fr

Your feedback is much appreciated.

Questions?