Ecole Polytechnique
Known as l’X
Ecole Polytechnique

- Grande Ecoles - top tier of French universities
- Admission through competitive exam process
- Engineering, Science, Arts & Humanities, Business, Political Science/Social Science
- 250 Grande Ecoles in France - educate the future French elite - only 5% of all university student study at a grande ecole
- Ecole Polytechnique ranked 1st or 2nd
What are the Grandes Ecoles?

- The *grandes écoles* (literally in French "higher schools") of France are higher education establishments outside the main framework of the French university system. The *grandes écoles* select students for admission based chiefly on national ranking in competitive written and oral exams. In contrast, French public universities have a legal obligation to accept all candidates of the region who hold a *baccalauréat*.

- Usually candidates for the national exams have completed two years of dedicated preparatory classes, although this is not always the case.

- They have produced many if not most of France's high-ranking civil servants, politicians and executives, as well as many scientists, writers and philosophers.

- Some *grandes écoles* concentrate on a subject area, such as engineering, sciences, social sciences, or business.
Facts & figures

Education

- 2,750 students
  - "Ingénieur Polytechnicien": 2,000 students, 20% international
  - Master of Science: 250 students, 50% international
  - PhD: 500 students, 35% international

- 660 faculty members
  - 14 members of the French Academy of Sciences
  - 19% international
  - 10 departments (education and research)

Research

- 1,600 people in the research center
- 600 researchers - 500 PhD
- 22 laboratories
- Total research budget of €95 million
- 1,000 publications per year

International

- More than 700 international students (27%) from 60 different countries
- 84% of a Class goes abroad (9 months)
- 445 visiting scientists each year (>1 month)
- 179 agreements with foreign universities
A multidisciplinary research centre

Physics and Applied Physics
(Theoretical, Condensed Matter, Solid-State, Particle, Nuclear, Plasma, Materials, Electronics, Lasers, Optics)

Mathematics

Applied Mathematics

Computer Science

Engineering Mechanics
(Solid Mechanics, Fluid Dynamics, Meteorology)

Biology

Chemistry

22 laboratories
1,600 people

Quantitative Economics & Finance, Management
Faculty

**FACULTY - KEY FIGURES**

1,100 teachers and professors

39% international faculty

99% of students employed 6 months after graduation
Ingénieur Polytechnicien Program

• Both general and specialized studies

École Polytechnique's *Ingénieur Polytechnicien* Program is a unique **4-year program**: 3 years to obtain the Engineering degree and 1 year to obtain École Polytechnique’s Diploma.
4 Year Program

• This 4-year curriculum provides students with:
  - A multidisciplinary scientific training that gives students a broad scientific base (basic sciences, engineering sciences, social economics).
  - A human, military and sports training that allows students to develop their behavioral and relational skills.
  - Specialized courses with advanced scientific concentrations that rival the top engineering schools worldwide.
**Undergraduate**

- Two to three years of undergraduate studies

**Graduate**

- « INGENIEUR POLYTECHNICIEN »
  - Year 1
  - Year 2
  - Year 3
  - Year 4
  - Year 5
  - Year 6
  - Year 7

**MASTER**

- 2,000 students
- 20% international

> « Ingénieur Polytechnicien »

**PhD Program**

- 250 students
- 50% international

- 500 students
- 35% international
Ecole Polytechnique Scholars Program

- 3.3 GPA required
- Must be able to read, write and comprehend French at least at an intermediate level.
- 14-week term (early Sept. to mid December)
- Students take classes ONLY from Year 3 (courses numbered in the 500 range)
- Students take 4 classes in their Programme d’Approfondissement (option) *literally means intensification or deepening* + possible Hum class + required French class
Campus Life

• Students live on campus in single dorm rooms
• There is very affordable on campus dining, as well as a kitchen to cook in
• Lots of clubs, and even more sports. Sports are a huge part of campus culture and are required for regular X students
• There is a week-long fall break, or reading week, in mid-October
What’s there to do in Paris?

- About a 45 minute train ride from X – you’ll be there every weekend!
- Food (http://www.timeout.com/paris/feature/food/pariss-best-cheap-eats)
- Marie Curie walking tour: http://hypatiamaze.org/m_curie/curie_walk.html
- Art!
  - Le Louvre (Mona Lisa, anyone?)
  - Musee d’Orsay (Hey Monet)
  - Centre Pompidou (inside out building)
  - Musee Carnavalet (Paris history – free!)
Ecoly Polytechnique Napoleon Uniforms
Founded 1794 & Became Military Academy under Napoleon in 1804

This Photo by Unknown Author is licensed under CC BY-SA
Technicians out of uniform
Binets (Clubs)

• About 250 clubs
• Cultural, artistic, social, scientific, religious and sporting activities.

• Find out more at: https://programmes.polytechnique.edu/en/ingenieur-polytechnicien-program/student-life/student-organizations
Horseback Riding!
Le Lac
Ecole Polytechnique Exchange

Overview:
https://programmes.polytechnique.edu/en/exchange-programs/international-academic-exchange-program/admissions
Ecole Polytechnique

- Can only do 3rd year of Ingenieur degree:
- Must take all 4 classes in your Programme d'Approfondissement (PA) (each = 9 Caltech units)
- Must take French Language for 3 HSS Caltech units - placement test is given. Can audit French lit, but exam is end of 3rd term so no credit.
- Can take hum or social science depending on offerings and schedule, usually 3 credits
Ecole Polytechnique Concentration Tracks

• ACADEMIC TRACKS
• Biology
• Bioinformatics
• Chemistry (Chem Eng also)
• Economics
• Electrical Engineering
• 21st Century Energies
• Computer Science
Ecole Polytechnique Concentration Tracks

• Technological Innovation
• Pure Mathematics
• Applied Mathematics
• Mechanics
• Physics
• Science of Cognition (CNS)
• Science for Environmental Challenges (GPS)
• Space Sciences
L’X Course Catalog

• 3\textsuperscript{rd} year Ingenieur Program only:
  • [https://www.polytechnique.edu/en/year-3-of-the-ingenieur-polytechnicien-program](https://www.polytechnique.edu/en/year-3-of-the-ingenieur-polytechnicien-program)

• Note again – 4 classes in one PA
Course Catalog

• STEM classes are 9 units each
• https://moodle.polytechnique.fr/?language=EN
• Go directly to current year:
• https://moodle.polytechnique.fr/course/index.php?categoryid=787
Application Process

Students must turn in all Caltech application forms as well as
A French language evaluation form

DUE JANUARY 25

Caltech Application Requirements
Application Form
Core Course Checklist
2-3 Recommendation letters
Proposal
  - Personal Statement
  - Courses needed to graduate
  - Program Fit
  - Proposed Course List

Ecole Polytechnique Requirements
Application Form
Learning Agreement Form
Curriculum Vitae
An abstract of courses
Language Evaluation
A letter of statement in French

Online Application Forms for Ecole Polytechnique will need to be completed once you are nominated

DO NOT SUBMIT ANYTHING TO ECOLE POLYTECHNIQUE. EVERYTHING COMES TO FASA.
Avez-vous des questions?