

École Polytechnique Scholars Program

Program Description and Application Requirements

Deadline date to apply to study abroad Fall Term is: **January 25**

MOST CLASSES ARE TAUGHT IN FRENCH AND ALL DISCUSSIONS, ASSIGNMENTS AND EXAMS ARE IN FRENCH. STUDENTS MUST HAVE VERY GOOD ABILITY IN SPEAKING, READING AND WRITING FRENCH BEFORE APPLYING FOR THIS PROGRAM.

The École Polytechnique Program is a study abroad program in which Caltech students at École Polytechnique for the fall term of their junior or senior year. The fall term dates are usually mid-September through mid-December, with a few days of orientation beforehand. There is usually a week long break in late October.

History

The École Polytechnique Scholars Program offers qualified juniors and seniors the opportunity to spend the fall term at the École Polytechnique, which is located outside of Paris near the town of Palaiseau, about 40 minutes by train from Paris.

Founded in 1794 during the French Revolution, École Polytechnique ("L'X") is one of the world's oldest and most prestigious engineering schools. Originally established in Paris as a military academy by Napoleon, it relocated to Palaiseau in 1976. Known for its highly selective entrance exam, the school trains top scientists, engineers, researchers, managers, and political leaders. Its students, called *polytechniciens* ("X" for men, "Xette" for women), number about 2,000 undergraduates and 500 postgraduates. The campus is also home to numerous cutting-edge research projects.

Room, Board and Student Life

Students are required to live in residence halls on the main campus, but are all given single rooms. The four dormitories, also called «caserts» are semi-circular buildings 4-stories tall. There is no board plan. Students will receive board money before they leave to cover most of their food costs. There is a shared kitchen for each half floor (about 20 students). The shared kitchen/lounge area is called the 'bar d'étage'. Students can cook for themselves, cook as a group or set up a "food co-op". Students can also eat in the on-campus cafeteria, but it has limited hours (7-8:30 for breakfast, 11:30-2 for lunch, 5:30-7:15 for dinner) and is not open on Sundays. Students pay with their badges (ID cards) and pay for an all-inclusive meal, as opposed to each item. There is also the canteen for a la carte items.

Since the campus is only about a 40 minute train ride to Paris, it is easy to go on day trips to museums, shopping, or just for a walk by the Seine. The train that serves the surrounding Paris area is called the RER B line and the stop closest to École Polytechnique is Lozere Station. There is a set of 300 steps that lead to the campus from the train station.

Campus life at École Polytechnique is vibrant and diverse. Sports are central to student life and required for all except exchange students, with options ranging from competitive teams to clubs like parachuting, jujitsu, circus, hiking, and even horseback riding at the on-campus equestrian center. Student associations, called *binets*, cover artistic, cultural, and international interests and are managed by the Kès, an elected student body that also represents students in relations with faculty, administration, and

alumni. The *Bataclan* student center houses these associations along with a bar and game rooms, decorated and run by students themselves. Though the 445-acre campus is somewhat isolated, it functions as a self-contained village with housing, a post office, medical services, religious communities, and more. Each December, a new Kès of 14 students is elected, with spirited campaigns and campus-wide involvement.

Students are allowed to arrive as early as September 1 (move in date varies each year), but orientation usually begins at the end of the first week of September. There is a one-week break at the end of October. For students involved in a sports team, this is the National Sports Match week when most teams go away to competitions. There are no academic obligations during this week. Students return to École Polytechnique for a final week of lectures/review, then have two weeks of exams before the end of the term.

Academic Program

After completing the French equivalent to high school and graduating with a baccalaureate diploma, French students undergo another 2 years of post-secondary preparatory school, «classes préparatoires». This is when students prepare for the intense entrance examinations into the Grandes Ecoles. The information learned is equivalent to the Caltech Core. French students begin their studies at École Polytechnique with this knowledge already mastered.

In their first year, École Polytechnique students complete eight months of leadership training and community service with the French Armed Forces, a residual testament to the military beginnings of the school. After training, they return to campus for three months of academics. The second year focuses on a broad academic curriculum, with students required to take six courses across different fields. In the third year, students select a *Programme d'Approfondissement* (PA), or in-depth area of study—similar to an option at Caltech. This is the year Caltech students join, with courses available in engineering, applied sciences, chemistry, physics, mathematics, and more.

École Polytechnique has different academic schedules depending on the year of study. Students should only look at classes numbered in the 500 range, which corresponds to the Year 3.

For courses taught at Ingenieur level, course codes starting with **550 and 570** are generally taught in **term 1 (Fall term)**, courses starting with **560 and 580** are generally taught in **term 2 (Winter term)** and codes starting with **590** refers to the research internship (Spring term).

Caltech students can only apply to study abroad during the X Year 3. You can only take classes in one PA due to scheduling and take a total of four classes in their PA. If their schedule permits, students can take one humanities/social science course. This depends on the bloc schedule of the PA classes, and sometimes is not determined until arrival at École Polytechnique. Students should list one or two optional humanities courses.

All Study Abroad students must take a French language course during their term, unless they place out via a placement test in the first week. Courses meet once a week for two hours and are offered at all levels from beginner to advanced (A1–C2). Students with advanced proficiency (C1–C2) may take thematic or alternative language courses. The required French course, *Français Langue Étrangère* (level TBD), counts for 2 ECTS.

Students may choose ONE of the majors (Specialization Programs) below. Those who have Economics as their primary option at Caltech should choose Economics.

Programme d'Approfondissement (PA)

(36 blocs, 144 h of teaching, 20 ECTS)

Biology	21st Century Energies
Bioinformatics	Technological Innovation
Chemistry	Mathematics
Computer Sciences	Applied Mathematics
Economics	Mechanics
Environmental Sciences	Physics
Electrical Engineering	Space Sciences & Challenges

When searching for courses, go to the **Year 3 Scientific Specialization page to search in your PA:** <https://moodle.polytechnique.fr/course/index.php?categoryid=979> Once you click on your major or PA, you will see the classes listed by period (Fall, Winter, or Spring).

Students will then meet with their professor in charge of specialization to discuss courses and possible course changes on that first day.

Courses at École Polytechnique follow a block schedule, meeting once per week. Most begin at 9 a.m. with a 2–3 hour lecture, followed by a 2-hour recitation. Lectures may have up to 150 students (typically 40–50), while recitations are smaller (around 15) and always led by faculty. Tutorials reinforce lecture material and follow a detailed course guide. Each course concludes with a final exam. Optional HSS courses, meet Thursday mornings (8–10 a.m.) and are often taught by visiting professors.

Exams are the last two weeks of the term (term ends mid-Dec). There are sometimes midterms, but it depends on the course. This is all in the course description, which is usually available in the summer.

École Polytechnique uses the European Credit Transfer System (ECTS). Most science courses are worth 5–10 ECTS, while humanities and language courses carry 2–4 ECTS. Caltech students must complete at least 36 Caltech units, equivalent to about 20 ECTS, plus the required 2-unit French language course.

If accepted into the program, all courses must be approved by Caltech faculty for their review and credit. You must find course descriptions and/or syllabi and show them to your professors. This could include some translation from French to English on your part!

Application Process

A minimum 3.3 GPA is required to apply. Eligible sophomores and juniors apply to study during their junior and senior year by the Caltech internal deadline. **Do not submit anything directly to EPT.**

Note that students must be nominated by Caltech and cannot apply on their own to Ecole Polytechnique. Once the Ecole Polytechnique application is live, those students who have EPT as a first or second choice will be asked to complete that application. Students are required to complete the Caltech Study Abroad application process including a formal assessment of their French skills by Caltech's French instructor. The language evaluation form is posted with the EPT application materials on the FASA website.