École Polytechnique Scholars Program

Program Description and Application Requirements

Due date for application: **January 25**

The École Polytechnique study abroad program is for the fall term of the Caltech students junior or senior year. The fall term dates are usually mid-September through mid-December, with a few days of orientation beforehand. 2025 dates were September 5th – December 20th. There is a week-long break in late October.

History

The École Polytechnique 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 and are all given single rooms. The four dormitories, also called «caserts» are semi-circular buildings 4-stories tall. There is no food plan. Students will receive food 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'etage'. 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 preparatoires". 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.

Study Abroad students are encouraged to take a French language course during their term, as it can help with everyday life, but it is not required. 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. *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
Bioinformatics
Chemistry
Computer Sciences
Economics
Energy
Electrical Engineering
Science for Environmental Challenges (GPS)
Technological Innovation
Mathematics
Applied Mathematics
Mechanics
Physics
Sciences & Space Challenges

When searching for courses, go here: https://synapses.polytechnique.fr/catalogue/2025-2026

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.

If accepted into the program, all courses must be approved by Caltech faculty for their review. You must find course descriptions and/or syllabi and show them to you professors. This could include some translation from French to English on your part! We will go into the course credit approval process once you have been placed into a program.

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. **Students do not need to know French to study abroad at Ecole Polytechnique.**

Some insight direct from a student currently studying at EPT:

TLDR: Classes have mandatory attendance on a varied schedule, less homework, and in-person exams. Housing options include on-campus accommodations for international students, and they have an orientation event to help you get settled in. Immersion in the French language is not a given due to the prevalence of English at such an international university. Finally, the different work-life balance allows for participation in more on- and off-campus events, with Paris being relatively close by.

Classes: The structure is very different from that of Caltech. Courses will typically have a lecture and a petite classe (PC) section, with each running for 2 hours. The lectures are pretty similar to those at Caltech, though here they tend to print out the lecture slides in case you want a physical copy (for lectures that are based off of slides). The PC (also called problem class) is like a mix of recitation and office hours—the TA(s) (and perhaps professor) give you some practice problems related to what the lecture just covered, and you are expected to work on them during that time. They then go over the solutions with the class, but typically will not get a chance to finish everything on the worksheet. They recommend going over problems in your own time; however, you are not always required to turn them in. It is important to keep in mind that almost all courses are mandatory attendance, which they enforce with sign-in sheets. Also, some start at 8:30 a.m., which is earlier than most classes at Caltech. Furthermore, classes only meet once a week, so you will likely have a day or two with no classes at all. Thursdays are off for everyone to make room for those in sports (P.E.) classes. For example, I have one lecture and PC (2 + 2 hrs) on Mondays, two lectures on Tuesdays (4 + 2 hrs), two sets of lecture and PC on Wednesdays (2 x (2 + 2) hrs), and nothing on Thursdays and Fridays. Also note, for the Ingénieur polytechnicien cycle, most classes are taught in English (the professor may ask in case everyone speaks French, but there's typically always at least one who doesn't). A big difference is that although homework varies, it is much lighter than at Caltech. This requires some getting used to because at Caltech you expect to have weekly homework in every class, but it's almost the opposite here. For reference, I do not have any required homework (except for a little reading for my French class), only exams. As for the exams, they are mostly timed (~3 hours), in-person/proctored, and pencil-and-paper (no "honor code" here), though some just have presentations or projects (typical for language or CS courses).

Housing: While some have chosen to rent an apartment in or around Paris, which requires commuting back and forth on the train, international students have the option of on-campus housing if they so choose. The exchange/international students are all placed in the same building, which is great for low-effort socializing. Although the rooms vary in layout and size, they all come with a bed, desk & chairs, private bathroom (sink, toilet, and shower), and a stove and kitchen sink. Since the bed is just the frame and mattress, they sell a €60 bed kit, which includes a set of sheets, quilt, and mattress cover. One thing to keep in mind is that the heaters/radiators only turn on for the winter in the first two weeks of October (or so I've been told; it has not happened yet), so the rooms get fairly cold. Remember to get US-Europe charging adapters because the outlets are different.

Orientation: We had a welcome day event where they explained the administrative and academic aspects of the exchange program, as well as an introduction to the clubs and social activities (the overall student-led clubs organization is called the Kès). If you have any questions (which you likely will), everyone is more than happy to help you out.

French: Aside from actually living in France, this exchange program is the best opportunity to immerse yourself in the French language. However, given that a) most classes will likely be taught in English, b) all administrative procedures can also be done in English, and c) the common language between the international students is English, most of your exposure to French will come from either a French class, sports, day-to-day socializing with French students, or interactions with people outside the university.

While I’m still getting used to how different life is here, I’ve enjoyed practicing my French with not just students here but also doing typically mundane things such as grocery shopping or riding the bus. It’s also great having more free time because there are a lot of events, both on and off campus. Paris is always just a train ride away.