

Here is a report from Tilke Judd, tjudd@mit.edu, Class of 2003, who visited the Ecole Polytechnique in 2003-2004.

When I think about Polytechnique, I think foremost about students who are very strong in math. Before the Cambridge MIT program existed, I was interested in going abroad to Polytechnique during my junior year, but I was warned against it by a Princeton math professor who was very familiar with the French system and the university. She knew I was at MIT studying Math, but she hypothesized that I didn't yet have the same level of proficiency as these students. Instead I went to Cambridge Uni that year and had a fabulous time:) I still was able to study at X after I graduated from MIT, and it was then that I realized that the prof was right.

The reason the French at this university are so strong in math is because they study college level math and physics for two years after highschool and before they go to X. This is called "Prepa". Then, after two years of math and physics, they take an exam and the top ranked 400 students in all of France go to X. By the time they reach their first year of X they are already math pros. The students then have one year of military service, followed by two years of study in several science majors. Knowing this, and knowing that I didn't speak french fluently, and knowing that I had already graduated from MIT, I decided to branch slightly away from math when I went to X. I studied computer science.

But really, my principle reason for going to X was not to study computer science, but to be immersed in a completely French speaking environment and be around intelligent students my age. I got all this. I made French friends, became fluent in French, learned about the French education system and demystified the aura that surrounds Polytechnique in France.

Even though academics was not my primary focus, I went to all the classes I could. Some classes I really enjoyed (my computer graphics class for example was small, interactive, and was in the field I would eventually choose for grad school) but in other classes I was completely lost (partly because I didn't understand the French well in the beginning, partly because there was zero interaction between the lecturing prof and the sitting students, and partly because I was not interested in the subject). I followed the Computer Science major 1 and 2 with the third year students of X. I took classes in Theory of Computation, FPGA programming, Operating Systems, Computer Hardware, Algorithms, Parallel Processing, and Computer Graphics, French and Painting. My peers were exactly my age - 5years after highschool - and were learning computer science for the first time with me.

In general the classes went as follows: There was 2 or 3 hour long lectures per week, followed by 1 or 2 "Petits classes" (little class) or "Travail Dirige" (lab work). We worked on completing a worksheet of problems in groups for the algorithms petits classes, or completing coding assignments for the graphics lab hours. There was almost no homework outside of these classes. Instead there was one final exam at the end of the term. Some included orals. I took my very first oral completely in French when I was there:)

This lack of homework meant that the students has a lot of time for outside activities. Everyone was part of a sports team (compulsory) and partook in some of the zillions of clubs, music lessons, parties, and eating. Some of my favorite memories of X are those where I stayed late on campus to make dinner with friends and eat and talk late into the night. My sport was sailing (not highly recommended), and I also took voice lessons and sang with a jazz group.

Overall, I'd say that the academic level of the students is very high - but this is probably mostly because they were the best students in Prepa where they learned everything they need to know to coast through Polytechnique. The classes are not super engaging for the typical American standard. The prof typically lectures and the students listen...that's it. Classes are also artificially more difficult for international students because of the language.

Overall, I'd also say that the environment is not nearly as nice as going to Cambridge. Polytechnique is a very small school (800 students total on campus at a time), and the facilities are quite old (as we speak though, they are building new classrooms and dormitories), the library is nearly non-existent, and its located on top of a hill in the middle of nowhere outside Paris. Its not the most happening place...and when you are stuck there without a car it can get a little trying.