

**EXCHANGE REPORT****Name****Year and term for exchange**

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Fall and spring terms (2018/19)

Exchange university

École polytechnique fédérale de Lausanne (EPFL)

Degree programme

Master's programme in Medical Engineering

An unforgettable but busy year in Lausanne

Before departure

During my Bachelor' studies I already had the chance to participate in a student exchange program, which turned out to be one of the most enriching experiences on a personal and academic level I have ever had. Therefore, I also applied for exchange studies during my Master's degree in order not to miss the occasion of living again a similar experience. In particular, I chose EPFL to be my university of destiny, since it is a leading and cutting-edge institution in my area of studies that counts on renowned professors of the field. Additionally, it is located in Switzerland, a country situated at the heart of Europe that offers numerous travel opportunities as well as the possibility to live in contact with nature and to practice French. In my case, I additionally got enrolled in a three-week-long French intensive course (all language levels were offered) that was given right before the starting of the official courses. In order to do so, an application (including an online test to check one's initial level) had to be made during the corresponding registration period (from 1st June to 8th July 2019). Furthermore, I obtained my birth certificate and my European Health Insurance card (KTH also offers an additional health insurance for the exchange students) and I applied for accommodation at an FMEL residence quite in advance.

Upon arrival

I arrived in Lausanne one month before the official start of my studies at EPFL due to the mentioned intensive French course. EPFL arranged a meeting at a specific day for all the newcomers who arrived earlier, in which we were informed of all the procedures we would have to follow (course registration, arrival announcement, health insurance presentation...) and we were given our CAMIPRO cards (student cards). By that time, there were already some social events held by the Erasmus Student Network (ESN) association, which are a good opportunity to meet people in your same situation (for this, I would highly recommend the French intensive course too). Moreover, by the beginning of the courses, EPFL invited all exchange students to dinner fondue in one of the restaurants located in the campus. Many distinct student associations of different categories exist at EPFL, all of which can be checked online (<https://www.epfl.ch/campus/associations/index-html/page-16289-en-html>).

As far as the arrival announcement is concerned, it must be done as soon as possible at the registration office corresponding to your accommodation emplacement. For that purpose, I had to present (as UE national) my passport, birth certificate, EPFL enrolment certificate, 3 passport photos, my rental contract, proof of having sufficient funding for my stay in Switzerland (at least 2000 CHF per month) and I had to pay a mandatory fee of 85 CHF, of which 60 CHF were returned to me when collecting the residence permit a couple of months later. Note that this must be done to be able to open a Swiss bank account. Additionally, I was requested to present in another office my European Health Insurance card.

Financials

I received a grant from the Swiss government (Swiss-European Mobility Programme) of 3800 CHF for the full academic year, however it did not even cover half of my expenses there. The cost of living is more expensive than in Sweden, specially the meat, the catering services (restaurants, bars), the accommodation and the transportation. I usually had a budget of around 1000/1100 CHF per month, being 470 CHF of them set aside for the payment of my room and 95 CHF for the public transport fee.

Differently from Stockholm, where there is a general public transport fee for the whole city and its surroundings, in the canton of Vaud one must pay in accordance to the number of transport areas that are wished to be frequented. On its behalf, Lausanne territory is divided in two areas that must

compulsorily be payed if a monthly ticket is desired to be purchased (56 CHF when being younger than 25). In my particular case, I had to pay for up to 4 zones, since I was living in Morges. Such ticket included metro, buses and trains. Without it, a single trip from Lausanne to the EPFL campus costed 4.80 CHF. Many people opt to use their bikes for moving around instead (there is a bike service at the campus through which one can obtain a reconditioned bike for 85 CHF with total guarantee and resell it there when desired for 50 CHF, and as EPFL student one can use the service PubliBike for free for 1h each time a bike or an e-bike is taken from one of the stations). Moreover, if one is willing to visit other Swiss cantons, it would be helpful to buy the Half Fare card (50% discount) and the Track 7 one (for people under 25). The former costed 185 CHF and the latter around 80 or 100 CHF, and it allowed you to travel for free (using trains) all around Switzerland from 7 pm to 5 am. In addition, if you buy the ticket in advance, you may found high discounts (“super saver” tickets). SBB Mobile app was quite useful to buy tickets and check the programmed timetables of the trains.

As far as the supermarkets are concerned, there were Coop (expensive), Migros (still expensive, but good quality), Lidl, Denner and Aldi (cheaper, although their quality is considerably lower, but still acceptable). In addition, some different food establishments tended to make some big offers through the mobile app “TooGoodToGo”.

Furthermore, the EPFL campus counts on several restaurants where one can enjoy a daily menu at no later than 2pm for usually 8 CHF if payed by CAMIPRO (rechargeable at campus using credit card).

Accommodation

I was lucky to receive accommodation from FMEL, although my residence was quite old and it was located in Morges (around 30min away from EPFL campus) instead of Lausanne. I lived in a single room that was already furnished with curtains, a chair, a desk, a bed and a wardrobe (additional items must be purchased by oneself; there was an Ikea one train station away from mine). The room had a sink, and I shared the toilets, showers and kitchen with the rest of the tenants, most of which were students that maintain a friendly atmosphere. In order to obtain it, I applied for it a lot of months in advance (be careful with the dates!). By that moment, one could not choose the desired residence, although I have heard that the selection and distribution process has already changed and it is now possible to do so. Additionally, people say that in order to get one room, it helps to make some phone calls to the responsible FMEL employers after making the application. In case they do not provide you with any accommodation, if you are already in Lausanne under extreme urgency, you could try to visit the FMEL office and ask them for any possible help (they will probably give you an studio, although they are quite expensive: around 1000 CHF).

Take into account that, apart from FMEL, there are some other residences whose application deadlines are even sooner. Some accommodation offers are also often published in this Facebook group: “A vendre ou a donner sur lausanne et environ”. Additionally, it could be possible to send an email to logement@epfl.ch so that they send you a list of rooms/apartments actualised every morning.

University and studies

EPFL is a big university with different scientific sections. In my case, as Medical Engineering student at KTH, I was assigned to the Life Science one. Most of the eligible courses were taught in English, although some few were only given in French. Moreover, there were some courses restricted to exchange students, which caused me to change my initial Study Plan (an initial meeting regarding these issues was held for exchange students of this section). When selecting the courses, one must be careful to avoid timetable collisions in between them and pay attention to the exam dates if available (although they are not usually given at the beginning). If possible, try to separate them as much as possible. I took all my exams in just one week and it was hard to cope with. During the semester, French courses are also given for free to EPFL and exchange students, having a 2-hour-long lesson per week. All my courses were given at EPFL campus, although in different buildings. EPFL mobile app presents an useful virtual map to localize the distinct rooms and it also allows to check one’s timetable. The campus counts on a lot of different

restaurants and cafeterias, it is well connected via bus or metro and there are nearby supermarkets (Migros and Denner).

Courses

First of all, it is needed to remark that at EPFL the amount of credits does not usually correspond at all the actual workload of each course, being this considerably higher in most of the cases (a 4-credit course at EPFL usually involves similar or higher workload than a 7.5 one at KTH, for example). Note that more-than-12h-long stances in the campus were sometimes required. Apart from the French modules (intensive and regular ones), I got enrolled in the following courses:

- MSE-471. Biomaterials (pour MX): Very interesting course addressing all types of biomaterials, their application and the concerning regulatory aspects. 6 practical works were performed (reports demanded afterwards), involving cell culture techniques and hydrogels.

- MICRO-514. Flexible bioelectronics: Interesting course on the topic with special focus on medical applications, however the workload is excessive (not recommended at all). A big and innovative engineering project with a lot of detail is demanded in parallel to the lessons, regular meetings each week are required and little guidance is provided. A lot of time is spent in research, sometimes unfruitfully because of that.

- BIOENG-486. Sensorimotor neuroprosthetics: Very promising course that turned out to be less interesting than expected (but I still enjoyed to study it). Some lessons were cancelled due to unavailability of the professor and lessons were sometimes difficult to follow due to lack of order. A project about the development of an innovative neuroprosthetic device is required, although in much less detail than the previous course.

- MSE-425. Soft matter: Course about the assembly of organic molecules and colloid formations. Course that was mostly theoretical with exercises provided in a weekly base. A small group project about a given topic of the course is demanded.

- BIO-447. Stem cell biology and technology: Theoretical course on stem cells. Many professors were involved and some of the provided slides could be difficult to follow without the aid of extra notes taken during the lessons. Multiple-choice exam and no projects developed in parallel were demanded.

Apart from the mentioned courses, I developed my master project at the Programmable Biomaterials Laboratory at EPFL too, having a very enriching and satisfactory experience. If a master project is desired to be performed at EPFL, it is a good idea to talk in advance about such willingness with the professor of interest. Every laboratory at EPFL has a webpage where one can follow their respective work, their offered projects (sometimes), and the contact details of the principal investigator. If it is instead desired to develop the master project at a company in Lausanne, attending the EPFL forum (job fair held at the campus) could be a good idea, although confidentiality problems may arise due to the mandatory publication required by the Swedish institutions.

City and country

I truly enjoyed my stay in Lausanne despite the heavy workload faced during the first semester. Lausanne is a student village with a young and great atmosphere that offers a lot of things to do. However, one must take into account that it is remarkably lower in size than Stockholm, with all the positive and negative things this entails. One of the aspects that I found more difficult to deal with were the opening hours of the shops and supermarkets, as they closed very early (at around 6 p.m.; at 8 p.m. for the supermarkets at EPFL campus though, or at midnight for the ones at the train station). In addition, public transport at night is horrible (no metro, very low frequencies of the trains, practically no night buses...). Some surrounding areas of Lausanne (including some residences) were difficult to reach at late hours then.

Leisure and social activities

As mentioned, there are a lot of things to do in Lausanne and, more globally, in Switzerland. Nevertheless, one must take into account that payable activities will usually be more expensive than in Stockholm. The Swiss Alps are an ideal setting for skiing and going hiking. At the beginning of the ski season, it is possible to buy a seasonal pass for around 400 CHF. There are different bars, pubs and clubs (some with free entrance) in Lausanne where to enjoy your time with your friends. It is also very common to go to the lake for a swim and to have a barbeque over there, specially in Summer. In the second semester, a huge music festival (named Balélec) is organized at EPFL campus every year, and well-known artists play there. Moreover, in Montreux it is organized a very famous jazz festival that lasts a couple of weeks. Tickets must be bought for the concerts listed on the line-up of the festival (for around 70 CHF), but there are a lot of free concerts around the area (highly recommended). Furthermore, at the end of the semester, in Lausanne is celebrated “le festival de la cité”, in which many free concerts are held around the old part of the village. In addition, a lot of “apèros” are frequently organized at the university campus, which are social meetings with food and drinks. On its behalf, EPFL offers a large selection of sports, which are usually done in the sports centre that is close to the campus, and open scientific conferences are held every day.

Other recommendations and observations

Notice that Swiss sockets are different from the ones used in Stockholm and some of the plugs of your electronic devices could not be suitable. Therefore, it would be recommendable to bring an adaptor or buy one once you arrive (around 10 CHF).