



2 months in little Amsterdam – exchange during the pandemic

Before departure

I love to travel and discover new things and therefore I find the possibility to study abroad as part of my education a good opportunity. At first, I was not sure about the possible destinations or how much work that was required before the exchange, but the new exchange coordinator explained everything and more that I needed to know. This motivated me to take the chance. I wanted to find a good university within Europe since I wanted to get a feeling for the life on the continent, travel a lot, get a good education and not spend too much time organising visas, scholarships etc.

Ever since I was a child, I have adored flowers and wished to visit the tulip fields of the Netherlands during a spring. This was a golden opportunity to be able to live in the beautiful Netherlands (during the spring!), try something new and study chemical engineering at one of the best schools in the world. The work prior to the exchange was smaller than I expected, and the exchange coordinator was very helpful. I applied for the Erasmus scholarship and did a language test. Since the Netherlands' are also within the EU I did not need to apply for any visa. The one thing that did take some time was to find an accommodation in the city of Delft. Delft is experiencing a housing shortage, which can be seen on the prices of the accommodations. I joined some Facebook groups. Sadly, the groups are mostly filled with incoming students looking for accommodation and less housing offers. There were also scams present in the groups. If it looks too good or is repeated many times in different posts, it is most likely a scam. I got recommended to ask for a housing service via TU Delft. The sooner one applies for the service and turns in all documents, the earlier one gets access to the service site. You pay a fee to access the site but there is no guarantee that there is a room available to you. I do although recommend it strongly since I did not find much luck in the Facebook groups. The service site did although open first in December (which I thought was very late since the lectures start in February) but once I got the login to the site I had chosen my apartment with the large housing supplier DUWO within hours. Within Delft everything is approximately 20 min away (with a bike). I can recommend a renting service for bikes called Swapfiets or that you buy a cheap bike upon arrival. You need a bike.

Many places in the Netherlands do not accept Mastercard or Visa. This was quite problematic for me when I wanted to shop at the Supermarket on my arrival in Delft. They did not accept any of my cards, so I needed to take out money to pay in cash. One thing that is also very recommended to do is to apply for an early time to register in the town. This is because that you need to be registered in Delft (or the Netherlands) to apply for a Dutch bank account, and there can be a really long waiting time (weeks) due to all the incoming students at the start of the semester. I got the invitation to the registration via email in late January.

Upon arrival

I got to the Netherlands the day before the introduction period in the beginning of February. All new exchange students and some new Dutch students were divided into groups with a coach. We got along very well together within the group and a good social basis was created. The campus is quite big, and the chemistry building is the furthest away from the city centre. There are some large older buildings but also very modern buildings (like the chemistry building and the library). I really liked the campus. There are not student chapters in the same way as on KTH but there are several more specified student groups available for all students as well as student bars. I joined the swim team and worked out at the huge training and activities facility called X. To apply for courses at X one needed to have a Dutch bank account before applying (not sure if it is still the same). The spots were filled super quickly so ask at X

beforehand about how to get into a spot you want. The lunches do often consist of a sandwich and/or soup but there is usually a microwave somewhere in the building.

Get ready for the weather too! I recommend a good raincoat or scale jacket instead of an umbrella. During my first three weeks there was unusual lot of wind too. There could also rain some time during the day, so my standard clothing was the raincoat and a large sweater underneath.

Financials

I got the Erasmus scholarship. The fees for X and the swim team was cheaper than at home. The food is about the same in the store, but I strongly recommend the food market that is open some days during the week to get fresh, local, much tastier, and cheaper fruits and vegetables. The housing was more expensive than at home. Restaurants and bars were mostly cheaper than at home.

Accommodation

I lived in a DUWO apartment that I found via the university's accommodation service. As said before, the search for my accommodation took the most preparation time. I did although experience that once the semester started, more serious offers were posted in the Facebook groups too...

One thing that I did not plan for was that all the kitchenware (pots, pans and glasses etc) was not included in my (nor most of my friends) kitchen. Luckily, there is an IKEA quite close from campus.

University and studies

The campus is large and the morning bike traffic to campus is very interesting. My recommendation is to not go when everyone else is going.

The chemical engineering education belongs to the Applied Science department. All my courses were in English and I found that most lecturers and tutors very interested in their subject and involved in the education. Something interesting that is possible at Delft is that you can follow any course you want (that you are qualified to) and not just the set courses. Once the exam approached you can register to the exam if you want to and most likely write it. It might be a good idea to hear with the program responsible about how it works but I know several Dutch students that popped up in classes just to follow the course and decide later if they should write the exam or not.

The schedule looked quite the same to KTH, although the lectures starts at 8:45 or 10:45 in the morning instead of 8:00 and 10:00.

Courses

The credits are the same as at KTH but the courses are worth less credits than at KTH. This means that you will follow more courses at the same time than at KTH. While you take 2 courses in KTH to make up 15 ECTS, you usually take 3-4 courses in TU Delft for the same credit. Even though there were more courses to follow, I believed the workload was at a good level and like KTH.

Due to the corona pandemic, all my exams were digital.

First period:

CH3222 Energy Storage in Batteries- I liked this course since it gave me a broader perspective on batteries than the electrochemistry course that I had read on KTH. There were several different lecturers that talked about their different fields. We got to go on lab tours to see the research groups that was working on batteries which was interesting. Some of the lectures was calculation sessions which was good if you needed assistance. I would recommend that you read some electrochemistry course before taking this course, but it is not necessary.

CH3632 Chemistry and Physics of Solar Cells- This was my most demanding course but also one of the coolest courses that I have taken. It was a lot more mathematical than I expected but they went through the applications well. There are both chemistry and physics students taking the course since the fields combine to make up the function behind solar cells. Sometimes it felt like I lacked some base knowledge, but it was filled with some hard work. The course really opened my eyes for the field, and I found it interesting. The teachers in the course were very helpful.

CH3101 Heterogeneous Catalysis for Chemical Engineers- a well-structured and interesting course. I did not plan to take it a first, but I am very glad that I did. The lectures are also super involved in the subject and explain things very well. The workload was well balanced and varied with lectures, group presentations, study visits (if not corona had appeared) and exam. I got to learn a lot about heterogenous catalysis, where it is used, problems and how the work within catalysis looks.

Second period:

LM3311 Green Chemistry and Sustainable Technology- The easiest of my course according to me. It included information of what "green chemistry" is and how it is used for good but also how it is misused. A lot of different cases and examples are talked about. There is a group presentation and an exam.

SET3085 Hydrogen Technology- I expected much more from this course. This was the only course that was not done in real time (not via Zoom or Skype). We watched pre-recorded lectures from previous years with a not very impressive quality. I did the course from the lecture notes myself and studied old exams. The examination program did not work properly and was not well put together. 49 % of the students who took the course failed even though the content was not very complicated. The content was interesting, but the pre-recorded lectures and examination program was not good. Maybe it would have been better if the course were taught in a classroom, but I cannot say. The content involved how to possible transition to a hydrogen-based society, its problems, and possibilities.

CIE4710 Materials Separation in Waste Processing- A very involved and reasonable lecturer that made the course more interesting than I expected. This is course within the civil engineering department, but I found it relevant and interesting to see what happens during waste recycling. There were real life examples, EU-regulations, teamwork in computer programs and the exam. We got to build recycling lines in a program and find how to separate common materials in profitable ways.

City and country

The city Delft is often called "Little Amsterdam" since it has similar architecture and canals as the capital (but has much less tourists). The Dutch people are very well spoken in English, but most letters and greetings will most likely be in Dutch. The Netherlands is the ideal bike-country. You need a bike and it adds very much freedom. There are also trains and busses connecting Delft to both Hague and Rotterdam in 15 min, Amsterdam in 1 hour and Paris in 3 hours.

Leisure and social activities

I mostly made plans with my friends from the introduction group and people in my house. We went to the carnival together in Breda which was super fun. (Get cheap costumes to the carnival). We went to bars, hosted dinners, went on biking trips and discovered the neighbouring cities Hague and Rotterdam. We had big plans for the Kings day celebration, but sadly it was cancelled as most other things. I never made it to Amsterdam, and I did not get to see the tulip fields in bloom due to the corona virus outbreak. When the Netherlands closed due to the pandemic, I did what most exchange students did. I went back to Sweden to follow my courses online. Now I have only added things on my bucket-list of things I need to do in the Netherlands, and I will have to go back soon.