

**Exchange university**

Delft University of Technology

Degree programme

Civil and Architectural Engineering

Seize the day, believing as little as possible in tomorrow

Before departure

The main reason why I applied for exchange studies was that I would like to experience a different student life and cultural environment in another country. I'm also always very interested in learning a new language. Studying, living and starting a new life in a place that I have never been could significantly improve my problem-solving ability as well.

TU Delft was my first and only choice for exchange studies since it is a widely known university with a high educational ranking, especially in the field of civil engineering. With an intention of challenging myself in difficult studies, I immediately submitted my application for doing exchange at TU Delft. Furthermore, the city Rotterdam and Hague have many attracting and fascinating buildings and infrastructures, I decided to find out how these structures were designed and constructed.

By studying at TU Delft, I expected to gain more technical and useful knowledge. If possible, I wanted to extend my stay at TU Delft to finish my Master thesis project.

Upon arrival

Because I was selected as a student guide of KTH arrival days for newly coming students, I arrived in the Netherlands several days after the last arrival day, which was five days before the start of semester at TU Delft. There was a very interesting introduction programme for exchange students before the school starts. Unfortunately, I arrived a little bit late so that I could not sign up for this event. The faculty of civil and geoscience has its own student union, but the majority are Dutch students and you have to speak fluent Dutch I think.

Financials

KTH provides most of the exchange students within the EU with Erasmus Scholarship, which is 300 Euro/month for exchange students coming to the Netherlands. Compared with Stockholm, the living expenses in Delft are more or less the same. The rental is much more expensive than the student accommodation from SSSB, but the prices for food are lower if you have time to cook by yourself instead of eating outside. Tips: sometimes you have to eat in the canteen (expensive) on campus because you are really busy with projects, assignments and exams, which often happens. The accommodation usually costs you 400~600 Euro/month depending on the type of your room. The common types are single studio, a room in a sheared apartment or a house (no corridor any more). If you don't have income and you are under 23 years old, you could also apply for the living allowance provided by the Dutch government for students (usually 100~150 Euro/month depending on the price of rental).

I spent 170 Euro for applying the Dutch residence permit (which is necessary if you stay more than 4 months as a non-EU student). There were mandatory fees for administrative stuff (around 20 Euro) but no other fees if you could provide your statement of bank account to prove that you have the ability to support yourself during the stay in NL.

Accommodation

I should mention that finding an accommodation by yourself in delft is a super difficult task. TU Delft will send students an email to ask whether to apply for accommodation with the help of TU Delft or

not. If yes, you have to pay around 228 Euro in advance for the application and the chance you will get a room is not 100 % guaranteed.

I decided to look for a place to stay by myself and initially I found a single studio room with private kitchen and bathroom on TU Delft campus (DUWO housing; 540 Euro/month; 30 m²). After two months, I had to move to another place near IKEA because the contract for the first room was only two months. The second place was a 12 m² room in a shared apartment (sharing with other 2 students; 550 Euro excluding water, heat and electricity; 10-minute biking to the civil building).

Due to some personal reasons, I moved back to the building where I lived in the first place one month later and the studio room was quite similar with the first one.

University and studies

The area of TU Delft campus is more than three times that of KTH, especially the building of civil and geoscience faculty has six floors full of classrooms, office rooms and labs. I highly recommend you to visit this building before your studies so that you will not lose your directions in the first few days.

There are eight tracks in our faculty in total (Structural, Geotechnical, Buildings, Hydraulic, Environmental, Remote Sensing, Transportation, Water Management). Each track provides us with a number of courses which are much more than KTH courses. For example, you can choose from over 30 courses (compulsory + elective) from the track of structural engineering.

The significant differences between the studies in KTH and TU Delft are the difficulties and requirements of courses, assignments and exams. Firstly, it is requested that we have to obtain 30 ECTS during exchange studies. However, the credits for each course at TUD are usually 3~4 credits, which means we have to participate in 7~8 courses, doubled from what we had in KTH. Secondly, most of these courses have several mandatory assignments or group projects and usually they are quite demanding and time-consuming. Unlike in KTH, there is no scheduled time for exercises and only lectures are given by the teachers. Therefore, you will probably end up with full time plan like this: having lectures during the daytime, individual assignments at nights and group projects on the weekends. It is very common to study in the library until 11pm everyday so please make sure that you are very well-prepared for the challenge to study in Delft. The exams are usually either closed-book written tests or oral tests. Calculations are only important in assignments and in the final exams you should comprehensively grasp the theories and practical engineering matters. The passing rate is usually 60~70% percent and if you want to achieve a higher grade (for example 7.5~8.5; Note that 9 and 10 are barely given unless you are extremely excellent in the course), you must make a lot of efforts. It is also possible to choose some language courses, e.g. Dutch course (credit giving one).

Courses

Because the time schedules for different courses overlap sometimes, it is somehow hard to make a perfect time schedule. Therefore, I have chosen courses from different tracks. It is fine that you miss some of those lectures because most of the lectures are recorded by camera and will be posted online (Collegerama) after the day. Here are the 8 courses I have taken in Delft and their brief information and my personal feelings after taking them:

1. CIE5148 computational modelling of structures: theories about FEM element types and material modes. Three assignments for modelling structures in DIANA. This course is very useful and one of my favourite courses. The assignments are very time consuming. Recommendation score: ★★★★★
2. CIE5260 structural response to earthquakes: MDoF structures under seismic action. If you don't have the pre-knowledge from their courses of dynamics and continuum mechanics, this course is extremely difficult. 4 group assignments which are extremely demanding and time-consuming. You have to be very familiar with Maple, Matlab and another software(ZeusNL) developed by TUD is used

in the assignment. The final exam is difficult and the passing rate is about 60%. Recommendation score: ★

3. CIE5850 production, construction and maintenance of asphalt concrete pavements: as can be obviously seen from the course title, this course introduces different phases of asphalt concrete pavement. One computer test and one essay. Recommendation score: ★★★

4. CIE 4363 deep excavation: talking about different types of excavation methods, sheet pile walls, anchors and struts. 2 assignments in D-sheetpiling program and one oral exam (a form of case study). Recommendation score: ★★★

5. CIE5127 concrete bridges: talking about prefabricated concrete bridges and cast in-situ bridges, different construction methods. 4 assignments and one oral exam (case study). Recommendation score: ★★★★★

6. CIE4180 plates and slabs: thin and thick plates theories. 2 computational assignments in DIANA. It is one of the pre-knowledge courses of computational modelling so it's much easier to follow this course. Recommendation score: ★★★

7. CIE4281 building structures: basic knowledge about the structural design of concrete and steel structures, skyscrapers. I don't recommend this course because the contents are just introductive. Recommendation score: ★

8. CIE4390 geo risk management: risk identification, risk control and management in geotechnical projects. 2 group projects followed with presentations. The final exam is oral test and I think this course is interesting. Recommendation score: ★★★

City and country

Delft is a quiet and peaceful town. However, my first impression to the locals are not very good because they sometimes yell at you if you walk on the bicycle path without any notice. It's hard to distinguish the pedestrians from the bicycle roads in the first few days. Later during my studies, I think most of the Dutch students are as nice and chill as Swedish students.

The daytime in the winter is not that short as that in Stockholm for sure and I didn't see any snow at all. The weather is always windy and it rains a looooot in every season. What I like the most about NL is that there are plenty of special Dutch snacks and food which are quite tasty.

Leisure and social activities

To be honest, in my "spare time" out of the classroom, I spent most of the time sitting in the library till 11 pm everyday including the weekends. The main contacts with other students are through group projects and assignments. Exchange students sometimes gathered together for a short trip to another city or hanged out to bars but it's just limited to the first week after one period starts. There is a huge sport centre on campus where you could workout, sing, dance, play instruments, etc.

Other recommendations and observations

Take TaMOS before studying abroad. I extended my stay in TUD to finish my Master thesis and you could apply for Erasmus Internship Scholarship with 590 Euro/month.

Never stop learning. Be prepared to the challenges. You will fill your backpack with professional knowledge and unforgettable experiences when you're back to Sweden.