Exchange to Trondheim

General Information

During the fall semester of the study year 2016/2017 I went to the Norwegian University of Science and Technology (NTNU) in Trondheim. Trondheim is a small city, in size comparable to Eindhoven (approx. 200,000 inhabitants) and students make up a large part of it (approximately 40,000 students). The introduction week began quite early, the 14th of August and the courses started one week later, the 21st of August. The semester ends, depending on your exam dates, a few days before Christmas.

Preparation

When you get the confirmation of ESE that you can apply for NTNU, you can apply on søknadsweb ("application web"). You have to fill out a few questions on for example documentation on financing. As an EU-student, this does not provide hurdles. After filling out some personal details, you can log on into the website and select the courses you want to take. These choices are not final yet and can be changed in the first weeks, but you will receive recommendations whether you can follow these course when your application is reviewed. As a last step you need to deliver a few documents (grade transcript, list of courses in progress, copy of your passport/ID-card, a CV and an additional form). Note that the first three need to be certified copies and may thus require some time to obtain, especially since the copy of the passport/ID-card can only happen at your municipality.

After you get accepted, you will get the choice to apply for housing. You will be able to choose between the Moholt and Steinan student villages, since these have furniture rooms. Moholt is the larger one of the two villages and located closer to the city centre and one of the two major campuses. Moreover, most international students live there, so I would advise Moholt. Note that it is not guaranteed that you will get housing in one of the student villages if you study in the fall semester and are an EU-citizen. The chance to get accepted was approximately 75%, but since construction was happening in Moholt, it may get higher in the future. When you get accepted into one of the two student villages, you only have one week to accept their offer, so make sure you also have regular internet access during vacations.

Lastly, it is handy to have a credit card, since the payment for doing the laundry (if you live in one of the student villages) can only be done by credit card.

Arrival

When I arrived at my room, one day before the introduction week, my three housemates were already there and two of them had already been living there before, so there was no need to buy a lot of things, except for bed sheets, a pillow etc. If you arrive in an empty house, you may also need to buy dishes. I would suggest checking out various facebook groups such as Student market Trondheim, to save costs. There is also an IKEA in Trondheim.

On Monday, the introduction week started. This week was mostly social, but also had a few informative meetings. For the social activities, you had to pay a small fee, but this was definitely

worth the price. The activities introduced you to the city, the nature around Trondheim, the university and of course the other international students.

<u>Courses</u>

As an BSC[2]-student I had taken already some programming courses at ESE and I decided to take a few more at NTNU to improve my coding skills. I initially took up four courses, worth 37,5 ECTS (all courses are 7,5 or 15 ECTS, so 30 is the minimum you have to take), as I was not sure how difficult some of them would turn out to be, since I followed some third year informatics courses. In the end, I only took exams of three of the four courses. I incorporated these courses in my elective space.

Introduction to Artificial Intelligence (7,5 ECTS)

This third year informatics course gives an introduction to the field of AI. It handles a few topics, such as logic, as well as some algorithms and some fundamentals of AI. The course had various lecturers and in general I enjoyed the course and lectures, since many AI applications were discussed and the theory was related to current developments.

For this course there were 7 individual assignments, of which you needed to pass at least 5 to be able to take the exam. Some of those were only theoretical and some required programming (most of the time in the language you wanted, once in Python). In general I would say the level of the course is well doable, if you put in some effort, but you do need sufficient experience in programming for the exercises. The final exam was only theory. The course was slightly less intense than most econometrics courses.

Programming Languages (7,5 ECTS)

This was the other third year informatics course I took. This course dealt with some programming techniques and concepts, such as streams and recursion. In the course, the programming languages Oz and Scala were taught. There were 7 individual programming assignments, of which you needed to pass at least 5 to take the exam. Moreover, there was a small group project, where you needed to score a pass. The lecturer was pretty good at explaining the material, but he did not seem to be very well prepared for every lecture.

Many of the programming assignments were quite doable, although it might take some time to get accustomed to the rather weird language Oz. However, the last assignment was extremely difficult in my opinion. As I could miss out on one course, I decided not to take the exam, but I think it would be possible to pass the exam, if focussing on the first, easier part of the course. The workload of this course was more comparable to the econometrics courses.

Algorithms & Datastructures (7,5 ECTS)

This was a second year course, which meant that (to my unpleasant surprise) the course was taught in Norwegian. As such, I could not follow the lectures, but the book was in English and clear. As I had already started to learn some Norwegian, I was able to understand the exercises and the slides with only minimal help of Google Translate. The exam was available in English.

This course had some overlap with the programming courses of the ESE, especially the major course Advanced Programming, but also material that was not covered in these courses. The content dealt with datastructures in programming, as well as certain algorithms, mostly sorting algorithms, and the

O-notation. The course also introduced the programming language Python. There were weekly theory and programming exercises, of which you needed to obtain half the points in total to be allowed to take the exam, so some exercises could be skipped. The level of the course and the exam was well doable, but due to the exercises it did require a decent amount of work, although less than most econometrics courses.

Norwegian Society (15 ECTS)

This course was especially designed for exchange students. It deals with various aspects of Norway and the way its society functions, such as the social security and sports. All lectures were given by guest lecturers and I found these in general the most interesting lectures to follow, as the small class size gave room for interaction.

For this course, you needed to write a small paper, which needed to be passed in order to take the exam. The level of the course was really easy and the workload was lower than my other courses at NTNU, even though I earned 15 ECTS.

Finances

As you probably already know, Norway is an expensive country. Especially food and alcohol is (very) expensive compared to the Netherlands, but many other goods are comparable to the price levels in the Netherlands.

Some important initial expenses were the plane ticket (€ 85 one-way), a sports membership (950 NOK for one semester), a bike (if you can buy a second-hand bike between € 40 and € 100) and other initial purchases (700 NOK).

Monthly expenses were approx. 3500 NOK for rent and 2000 NOK for groceries. Unlike many other students I did not buy a bus card, but this did mean I had to cycle in slippery conditions during the last months.

Other expenses included trips, social activities and going out.

Daily Life

It is claimed that Trondheim is the best student city of Scandinavia and I can fully imagine that to be true. Students are the dominant group of the city. Moreover, there are many student organisations and the housing corporation, SiT, has an activity house where events are organised.

Generally, I spent my time enjoying a run in the nature, when it was light (only a few hours in winter). I joined the athletics group of the university, which I can recommend for everyone, as they offer running trainings for all levels and also organise a lot of social events. Moreover, I also joined a more professional running group.

Popular weekend activities were hiking trips or trips to cabins, which you can reserve for a small fee, if you are member of the sports society of NTNU.

In conclusion, I would definitely recommend Trondheim, especially if you like to experience nature and don't mind winter.