

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

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2019, Fall Semester

**Exchange university**

DTU, Technical University of Denmark

**Degree programme**

Master's Program, Medical Engineering

## Medical Engineering Masters Exchange semester at DTU, Denmark

### Before departure

When I was applying for a Master's program I ended up choosing between KTH and DTU, so when I found out I could do an exchange within my studies - DTU was an immediate choice for me. Going to Denmark from the EU required minimum preparation; no visa applications, no vaccination, English is the second biggest language and everyone speaks it, making it a very simple preparation procedure.

### Upon arrival

I arrived to DTU for the introduction week (last week of August), and the studies start in the first week of September. During the introduction week, all exchange students are assigned to group of 15 students and as a group you take part in several activities during the week, allowing you to meet many students, get to know what clubs and societies DTU has to offer, how to get around the campus. During the introduction week is a good time to apply for the residence permit; even exchange student coming for one semester are required to obtain one. There are also some offers presented to students, including great student deals for the rental of bikes.

### Financials

I received an Erasmus+ grant from KTH, which was delivered in two parts, one before I arrived at DTU and another - after my exchange studies. In general, DTU and KTH are very comparable in prices, lunch is about 40DKK (in the canteen the price is determined by the weight of the food on the plate and therefore could range significantly) and beers range from 10-20DKK. Copenhagen and Stockholm are also very similar in prices. To save up money I would highly recommend getting a travel card as soon as possible and if possible use a bike as a mode of transportation since transport is very expensive in Denmark. Additionally, TooGoodToGo is a great app that is widely used in Denmark to get cheap food.

### Accommodation

When exchange students apply for accommodation through university, majority of them get a place at the U2 Campus apartments. The rent is about 4200DKK. Before applying through DTU accommodation services, I asked a friend who studied at DTU if she knew anyone subletting a room at DTU. She kindly gave me contacts of a girl who lived on campus (in Kampsax) but was going on the exchange for around the same time I was coming to DTU for. It is common for people going on exchange to sublet their room for the period. There is even an official contract provided by DTU for such cases. We then arranged the agreement, payments, deposits, key transfers with the girl. The rent was 2800DKK and the deposit was 2 months rent. In August during the introduction week I moved into the room, it was a big en-suite room within a flat which had a common kitchen shared by all flatmates. Together with the flatmates we had several communal dinners, games nights and parties. Kampsax is very conveniently positioned on campus; it is situated very close to all lecture halls as well as Netto – an on-campus supermarket. There is a Kampsax Facebook group where students occasionally advertise if they are looking to sublet their room.

### University and studies

DTU has very strong research areas in physics (including nanophysics), environmental sciences, biotechnology and machine learning. I picked subjects related to my field; Biomedical Product Development (22435, 10 ECS), MEMS (22649, 10 ECS) and Advances in Biomedical Microsystems (22233, 5 ECS) to add up to 25 ECS points. A 5 ESC credit course corresponds to one 4-hour slot in a

week and a 10 ESCs course therefore takes up 2 x 4-hour long slots per week. Usually the lecturer spends the first 2 hours going through the material and then the last 2 hours are spent working on exercises related to the covered material. All my courses were taught in English because these were Master's level subjects, whereas most of the Bachelor courses are taught in Danish. Some of my friends who came to DTU for at least 2 semesters also picked Danish language as one of their courses.

### **Courses**

The courses I chose were based on the relevance to my field as well as contributed to all-around knowledge, these were: Biomedical Product Development (22435), MEMS (22649) and Advances in Biomedical Microsystems (22233, 5 ECS). In Biomedical Product Development, we learned about requirements to bring a biomedical product to the market within the EU and US, including documentation, clinical evaluation, human factor studies, regulatory requirements, standards. The practical part included working on a group project to write a report on a development of a medical device of choice. The most challenging subject for me was microelectromechanical systems (MEMS) that looked at design and fabrication of microsystems, its mathematical modelling, transduction of sensors and transducers. Although it was challenging, and involved a lot of extra studying, it was a very interesting subject that gave me an insight of a previously unfamiliar field. Finally, the Advances in Biomedical Microsystems course was an eye-opening course about novel diagnostics and pharmaceutical developments in the micro- and nanotechnology fields.

### **City and country**

The closest city to DTU is Lyngby, which offers many clothing stores, supermarkets, cafés and restaurants. It is also a nice city to walk around in the winter time when the decorations are up for Christmas. Occasionally I would bike to Lyngby to collect food from TooGoodToGo. There is also a big lake with a walking path around it, for a nice weekend walk/run. Copenhagen is located about 30 minutes away from DTU (bus 150S or 300 to Nørreport station) and as a typical capital city offers a ton of things to do and 100% worth exploring! Denmark is a great country for cycling, with many cycling paths and flat areas making cycling a great mode of transportation. There is a deer park (Dyrehaven) within walking distance from DTU with many red and fallow deer and a heritage palace.



Deer park



View of Møns Klint, chalk cliffs along the eastern coast of the Danish island of Møn.

## Leisure and social activities

I mainly did sports in my spare time; I joined the Ultimate Frisbee club which was a lot of fun and it is probably the best thing that happened to me at DTU, the people are just incredible there! During the fall semester, we had 3 trainings per week, 3 matches with other clubs and many social events. I strongly recommend joining a club/society at DTU because you get to meet and get to know people from different study lines and from different counties (mainly Danish). There was also an introduction week at the beginning of the semester, this is a must because it is packed with fun activities, a day in Copenhagen, get to know what DTU has to offer and most importantly you get to spend a week with other exchange students who (in most cases) you will stay friends with for the duration of the semester.

