

# Erasmus Report

## Erasmus report for study abroad

The Netherlands, Venlo

---

### Introduction

My exchange program lead me to The Netherlands, and more specifically Venlo near the German border (where the ❤️ is located)



Venlo is a small town with roughly 100.000 inhabitants, and a small and cozy city center with cafés and shops.

At [KEA](#) I studied the Top Up, Software Development, which gravitated me towards a natural selection of Software Engineering on my exchange as well.

At [Fontys](#) you choose between 4 different specializations within the branch of Advanced Informatics:

- Embedded Systems
- Data Science
- Business Informatics
- Software Engineering

Each specialization has 3 courses, and either an elective from one of the other branches or Introduction to Cybersecurity. Lastly theres a project where you apply your skills from throughout the semester.

In my case I chose an elective from the Data Science branch, which was Data Mining.

My complete schedule consisted of:

#### 1. Advanced Database Concepts (DBS2)

- This course focused primarily on SQL databases, and a short introduction to NoSQL database.
- DBS2's focus is on the internal architecture of a DBMS.
- Transaction management, concurrency, and query optimizations are all important topics covered by this course.

#### 2. Operating Systems & Concurrency (OSCO)

- In this course we covered how the low level components of a operating system and it's associated hardware works.
- Some of the covered topics are:
  - Memory Management.
  - Virtual Memory.
  - CPU.
  - Processes & Threads.
  - Process & Disk scheduling.

#### 3. Frontend Development (FRED)

- This courses focused mainly on the UI / UX phases.
- What are the different UX principals.

- What are some design principles.

#### 4. Data Mining (DAMI)

- This course is based on machine learning and statistics. Having a prior introduction to ML / AI could be a great advantage.
- An important topic of DAMI is how data is gathered, manipulated, sorted, and presented.
- Some of the topics covered in this course consists of:
  - Neural Networks.
  - Dimensionality Reduction.
  - Regressions.
  - Performance Metrics.
- Math is widely used in the lectures, but not needed for the actual work to be done.
- A base understanding of Python, Matplotlib & Pandas are a great advantage.

#### 5. Project

- In the project you choose a course or multiple, to focus on. Throughout the semester you build an application with the chosen course(s) in focus.
- 

## Academic Experience

Fontys was not very helpful in my case for choosing a desired track. However I initially chose [Embedded Systems](#), which I quickly discovered wasn't a good fit for me. I took contact to the international coordinator of Fontys and we sorted everything out, and made it possible for me to swap to [Software Engineering](#).

In order of rewarding classes from high to low:

1. [OSCO](#)
2. [DBS2](#)
3. [DAMI](#)
4. [FRED](#)

OSCO provided a great understanding of how a computer's operating system actually works. It was a very interesting, but difficult subject. Initially it was very difficult, but as time progressed and we had more classes everything fell into place.

By understanding low level components of an OS, it's given me an idea of how I might improve my coding and projects in the future.

Despite having already had plenty of database classes at KEA, DBS2 at Fontys was different. At KEA it has been more practical as to how we make a great database, models, schemas etc. However with this course I got to understand the "behind the curtains" of a database management system.

DAMI wasn't a good subject for me as machine learning and statistics is not a passion of mine. From the module description it seemed more interesting and more hands-on in regards to how a data scientist might handle the datasets. This was a misunderstanding. DAMI is more than just handling data. It's a lot of theoretical math, which is never applied in the practical work. It covers a wide variety of topics, a few too many in my opinion considered that most people in this course are new to machine learning and / or AI.

FRED was a complete disappointment. There is very little "development". Close to none actually. It's more about UI and UX design and the associated principles and design rules. As I am a developer and more interested in the development part, who doesn't care much for designing, this class was really disappointing.

At Fontys it's sadly not an option to mix and match classes as desired. You choose a specialization and stick to those classes. At most you can choose an elective from another branch. My best advice is to dive deep into the different specializations and decide on which is more interesting.

---

## Practical Experience

The application process was really easy initially. KEA had an easy formular to apply. However I was in the unlucky situation, that KEA and Fontys wasn't aligned on which campus they had an arrangement for. I applied for Fontys in Eindhoven, but ended up in Fontys in Venlo.

KEA and Fontys was quick to act upon this when the mistake was spotted. Roughly 2 months due to departure.

The international coordinator at Fontys was great and arranged a video call to answer any question I might have had, as time was of the essence.

Once I arrived in Venlo, the first month was difficult. It seems as if Fontys, Venlo is a new at receiving exchange students. We had a quick introduction to Canvas, their school portal, which most of the exchange students quickly forgot all about.

Furthermore the semester at Fontys in which I arrived, was also a preparation for the full time students to find their internships. A lot of time was spent in classes and in general, on learning about the upcoming internships. This is of course completely irrelevant for exchange students, and they could have made it more obvious when internships was the focus.

As for accommodation it was really easy and fairly priced for me. I paid 440€ which translates to roughly 3300 DKK. My housing was provided by Fontys as they have a working relationship with a local housing company. I was randomly selected to be allocated at one of these dormitories.

The Netherlands sadly suffers from a housing crisis and accommodation can therefore vary a lot in prices and quality. Anywhere from 400€ to 800€ a month.

As for expenses it is very much like Denmark. Prices are in general the same. Therefore it wasn't a big change for me. I still received SU while on my exchange, and also the Eramus+ grant. I had applied for further grants, between 5-8, and got none of them.

---

## Cultural & Personal Experience

As Denmark and The Netherlands a very(!) alike I didn't face much challenges. One issue I did face is the fact that they don't accept digital ID's. They require a physical ID, and this was actually my biggest cultural difference.

My exchange hasn't provided me with much cultural experience in the matter of The Netherlands. However the other exchange students has widen my horizon. I've met people from all over the world. All the way from Africa, South Europe, Nordics, Japan, China and so on.

It's been great experience to hear how different countries and cultures deal with the same challenges that we face in Denmark.

My advice for upcoming exchange students:

- Open your mind to changes.

Listen to what your fellow exchange students has to offer. How are their lives in home countries. You can learn a lot of great things from your new friends.

- Keep your age in mind.

I've been in the situation of being on exchange with a lot of young people. I'm 26, and most of my friends here 19-23. It does make a difference believe it or not. Try to ask the receiving school about the average age of incoming students.

- Travel

Use the free time to travel to neighbouring countries. If you're in Europe, [Interrail](#) is a really good option.

- Prioritize the experience over the studies.

I've definitely prioritized the experiences, traveling, and meeting new people over my studies. That said, don't neglect your studies. Worrying about missing out on ECTS points is stressful!

---