

# **E-LEARNING OPPORTUNITIES AT THE TALLINN UNIVERSITY OF TECHNOLOGY**

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# INTRODUCTION

- Tallinn University of Technology (abbreviations TTÜ, TTU, TUT and TalTech are used) is the largest technical university in Estonia.
- In autumn 2022, there were approximately 9,000 students and 2,000 employees at TalTech, of which 1,100 are academic employees.
- TalTech Estonian Maritime Academy is the smallest department in Tallinn University of Technology.
- There are approximately 500 students and 90 employees at TalTech Estonian Maritime Academy, of which 60 are academic employees.
- I have been working at Tallinn University of Technology as a lecturer since 2014, and in addition to my job as a lecturer, I have worked as an educational technologist for a few years.
- I teach the Basics of Information Technology at TalTech Estonian Maritime Academy faculty. In addition, I am currently also a member of the HAKA e-courses quality group.

# MOODLE COURSES IN ESTONIA

- Partial e-learning was started in Estonian universities, including TUT, already in 2003. At first, the paid e-learning environment **WebCt** was used, but after its significant increase in price, it was abandoned and the freeware environment **Moodle** was introduced instead of WebCt.
- In the years 2008 - 2013, the **BeSt program** supported by the European Union helped the teachers of Estonian universities and higher education institutions to create high-quality e-courses in the Moodle environment.
- There were some enthusiastic teachers and lecturers at this time, but the general interest in e-courses was low.
- Currently Moodle is mainly used as an e-learning environment in Estonian universities, colleges and vocational schools.

# MOODLE COURSES IN TALLINN UNIVERSITY OF TECHNOLOGY

- The majority of Estonian higher education institutions and Tallinn University of Technology too used the Moodle learning environment managed by the Estonian state (currently called **HARNO Moodle** <http://moodle.edu.ee> ), because it was cheaper than using an environment administered by the school itself.
- HARNO Moodle started to be used more and more by general education schools, and the use of this environment by schools of different levels became difficult.
- In 2019, all courses of Tallinn University of Technology were transferred from HARNO Moodle to their school's Moodle environment <http://moodle.taltech.ee>.
- The change of the Moodle environment allowed the university to quickly make necessary changes in it.

# E-LEARNING STANDARD AT TALLINN UNIVERSITY OF TECHNOLOGY

- In order to modernize the learning process, in 2016 Tallinn University of Technology adopted a decision to establish an e-learning standard for subjects. According to the standard, the subject can be assigned an e-learning level:
  - Level 1: Entry level - minimal e-support
  - Level 2: Advanced level - e-course with quality mark
  - Level 3: TalTechDigital e-course
- The standard stated that by the academic year 2020/2021 at the latest, all compulsory subjects at the bachelor's and master's level must meet at least *Level 1*.
- With the help of educational technologists and e-learning support persons, this goal was achieved by the deadline at TalTech Estonian Maritime Academy.

## LEVEL 1: ENTRY LEVEL - MINIMAL E-SUPPORT

- A Level 1 course had to have a single style throughout and had to include the following parts:
  - Brief description of the course;
  - Reference to the syllabus in the university's study information system (ÖIS);
  - Expanded syllabus, which includes study guide and action plan;
  - Study materials (lecture outlines or presentations preferably in PDF format);
  - References to textbooks and other educational materials (preferably online);
  - Review questions or self-tests;
  - Ability to present learning tasks through the learning environment;
  - Display of learning results in the learning environment (use the grade sheet in Moodle);
  - Teacher announcements in the Moodle forum or another online environment;
  - Student questions/answers in the Moodle forum or another online environment;
  - Feedback from the learner to the course in the online environment.

## LEVEL 2: ADVANCED LEVEL - E-COURSE WITH QUALITY MARK

- A course of this level must meet all Level 1 courses and, in addition, the criteria developed by the HARNO e-course quality group. The next speaker, Liia Lauri, will tell you about the e-course quality group and the annual e-course quality competitions.
- Level 2 is valid for 3 years.

## LEVEL 3: TALTECHDIGITAL E-COURSE

The TalTechDigital e-course contains components of levels 1 and 2 and meets the following conditions:

- can be partially or fully completed in an e-learning environment;
- contains various multimedia solutions such as educational videos, lecture recordings, interactive educational materials, etc.;
- the learner's knowledge is evaluated in the e-learning environment;
- the average grade of student feedback for the course is higher than 4.0 (based on students' feedback in university's study information system (ÕIS), the last year's ÕIS feedback is taken into account);
- valid for 3 years;
- Awarded on an ongoing basis according to applications submitted to the TalTech Educational Technology Center.

Based on the learning materials and learning tasks of the e-courses created at the TalTech Digital level, further education courses (including MOOC, LOOC) that take place in a 100% e-environment can be created later.



## E-LEARNING DURING CORONA

- The complete transition from classroom learning to distance learning in March 2020 came very suddenly for me - on Friday, it was announced that from Monday, you can no longer go to school. Fortunately, by that time I had a *Level 2: Advanced level - quality marked e-course* in one subject and I could use it for distance learning in this subject. In the second subject, I had a Moodle course, but it was still being designed, so I had to start developing it quickly.
- Most of my colleagues at TalTech Estonian Maritime Academy had *Level 1*, which was still under development, and it was not very useful for distance learning, because there were only materials in the courses, but not exercises and forums and they don't use the grade sheet in Moodle. The lecturers took this situation seriously and quickly put their courses in order.

## USING WEBINARS IN TEACHING

- Webinars in teaching began to be used massively at Tallinn University of Technology only during Corona in 2020 and 2021. In 2022, the use of webinars decreased, but it was still higher than before Corona.
- **Microsoft Teams** was used the most at TalTech, because our school largely uses paid Microsoft programs. **ZOOM**, **BigBlueButton** and **Google Meet** were also used to a lesser extent.
- I use BigBlueButton because it is made specifically for teaching and is integrated into the Moodle environment.

# CONCLUSIONS

- It must be said that TalTech's decision to introduce an e-learning standard and start implementing it immediately, requiring at least *Level 1* approval for all compulsory subjects, was very timely.
- After the Corona period, the TalTech Estonian Maritime Academy went back to classroom learning, but the use of e-learning mainly to manage independent work continued.
- In summary, it can be said that the time of Corona significantly accelerated the development of e-learning throughout Estonia and also at Tallinn University of Technology.



# TAL TECH

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