

# UNIVERSITY OF TARTU

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## Facts about the institution

Name of the institution	Tartu Ülikool, University of Tartu
URL of the institution	<a href="http://www.ut.ee">http://www.ut.ee</a>
Country	Estonia

## Introduction

As a national University, the University of Tartu is proud to maintain and promote Estonian culture and shape the international image of Estonian science. Following good academic traditions, this one and only classical Estonian-language university offers research-based graduate and postgraduate degree programmes and deals with both fundamental and applied research. Catering to the current needs of society, the university does pioneering work in application of innovation to its training and research.

The competitive ability of the University's graduates both at home and abroad as well as the continuously growing body of foreign students speak of the high quality of instruction given at the baccalaureate, master's and doctoral levels. 70% of all Estonian Ph.D. degrees get awarded in Tartu. Through its Open University, owing to modern technological facilities, the University now offers new flexible learning and continuing education programmes.

## Contextual factors concerning online learning in Estonia

University of Tartu focuses mostly on the Estonian market. The population of Estonia is 1.4 million and the predominant language is Estonian which is spoken as a first language by 70% of the population. Currently there are 68 000 students in Estonian higher education, about 10% of which study in distance education and continuing education. It is foreseen that the number of on campus students will decrease significantly in the coming years but a slight and steady increase is expected in other forms.

Estonia is certainly one of the best of the new European Union member states and close to the Scandinavian countries when it comes to using ICT and the availability of technical infrastructure. According to statistics, 60% of the population aged 6-74 uses Internet, 35% of the same age group uses Internet daily. 39% of the families have Internet connection at home and this figure is constantly increasing. Thus ICT skills of the people of Estonia are quite high and the readiness for online education is present among the target groups. Unfortunately development of online education has not generally been a priority within the management of universities and also lack of financial support at the national level can be regarded as a drawback.

## History

The year 1995 may be considered to be the beginning of e-learning at the University of Tartu when the first e-mail based course was delivered for the students of the Faculty of Mathematics. In 1998 the Multimedia Centre obtained videoconference facilities with the

support of the PHARE Multi-country Project in Distance Education and the first web-based course in the WebCT environment was developed and delivered. In January 2000 the University Council stated in its decision that ICT-based teaching and learning is strategically important. In February 2003, the University of Tartu initiated in cooperation with other universities, the Ministry of Education and Research and the Estonian Information Technology Foundation (EITF) the Estonian e-University, which has grown into a consortium under EITF to support the universities and coordinate the development of e-learning. At the end of 2005 University of Tartu approved the e-learning strategy for 2006-2010.

It is clear that gradual step by step increase of online education requires competent staff. At the moment the university offers several pedagogical and technical training courses for teachers in which ca 300 teachers have participated during the last few years. In addition to training courses, educational technologists offer individual counselling to teachers. The support from educational technologists and media specialists is very important for teaching staff.

Regarding research activities, most of the developments are being carried out together with other institutions under the umbrella of the Estonian e-University consortium. In 2004-2005 a thorough analysis was made among different student groups about the role of ICT –based teaching and learning to students' learning approach (deep or surface) (ETF grant No 5838, How to support deep learning at university level).

### **Technical issues**

The University of Tartu has used learning management system WebCT for developing and delivering e-courses since 1998. Only in very few cases special software is needed (eg. Mathcad, APSTest). Videoconferencing or using Horizon Wimba tools are also available to the staff and students, the latter being integrated to the WebCT environment. As for other similar integration processes, then the learning management system is not integrated with the study information system (separate authentication, no data exchange between LMS and SIS). IT-systems integration with LMS is the activity the institution has to deal with in the near future.

WebCT server management and course administration is accomplished jointly at the Estonian e-University consortium level which is certainly the strength, saving necessary human and financial resources for these tasks at the institutional level. At the same time LMS management and administration at the consortium level makes it more difficult to integrate the different IT systems. For example every consortium member university has different SIS and this makes it complicated to integrate LMS and SIS of each particular institution.

When concentrating on the particular skills of the staff, then most of the teachers are competent in using PowerPoint, web for information searching, e-mail, university study information system etc. More complicated skills are not so widely spread, for example creating web pages, recording audio and video files, creating animations, designing courses in LMS.

## **Courses**

The University of Tartu has been using web-based courses for 8 years. Today the number of web-based courses has grown to approximately 400 and the teaching staff of almost all faculties has experience with the WebCT environment. Most e-courses have been registered by the Faculty of Economics (53), Faculty of Mathematics and Computer Sciences (50), Pärnu College (44), Faculty of Philosophy (38), and Faculty of Social Sciences (32).

E-courses are used in the Open University as well as in stationary education and in-service training programs. The courses in these cases are usually not 100 % web-based, but e-learning is used in combination with face to face sessions in classrooms to support independent work of the students. Most of the e-courses are in Estonian; there are currently only 6 courses in other languages.

There are currently 70 curricula at the University of Tartu offered in distance education. All of them have some ICT support but in most cases it is difficult to follow how much the courses are supported by web-based materials, discussions and other learning opportunities. Currently around 100 courses that are taught in distance education can be more or less fully completed online. E-learning strategy aims to have web-based support for all Open University (distance) curricula by 2010.

Communication-wise in the case of totally online courses, asynchronous communication is more widely used than synchronous communication. The discussions board is the main tool for asynchronous communication. Private communication is taking place through course mail or regular e-mail. In some courses synchronous communication is taking place as well using chat, Horizon Wimba live classroom (integrated with WebCT) or outside tools (MSN, Skype, videoconferencing system).

## **Management, strategy and attitudes**

Leadership has been supportive towards e-learning but rather passively not actively supportive. Last 5-6 years have been very busy due to the implementation of Bologna reform, implementing programme-based teaching (programme managers and councils for all curricula) and internationalization. Thus, there have been clearly other - wider and more important topics in the centre of the attention of leadership.

University teachers have generally positive attitude towards online teaching, but teachers have described the following problems related with online teaching:

- Not enough supporting personnel (educational technologists, multimedia specialists, tutors)
- Teaching staff is mainly interested in learning technical skills, not e-learning methodology, instructional design and that is the reason why they do not have knowledge how to organize learning process in e-learning courses
- Teaching staff is very busy and if they participate in training courses, they often drop out and do not finish the course

- Older persons have difficulty to learn new skills (especially technical skills) for e-learning
- Problems with counting workload of teachers and tutors

All the issues raised in the previous paragraph will hopefully be solved with the implementation of the new e-learning strategy 2006-2010 which was approved by the Council of the University of Tartu December 23, 2005. According to the strategy, the aim of the University of Tartu in developing e-learning is to create a modern, flexible and internationally open educational process supportive of efficient and independent learning. In order to achieve the established objective, the University of Tartu sets itself the tasks in developing e-learning in 3 categories:

I Support high-quality studies centred on the student and involvement of new target groups

II Increase the elearning competence of the teaching staff, students and assistance personnel and develop cooperation models for e-learning

III Ensure high level of infrastructure and support services for e-learning

Attention has been paid to staff development and the support for developing ICT-based teaching through following activities:

1. ICT-based teaching courses for using different technologies in teaching have been provided. Since 1999 the courses in ICT-based teaching have been focused on both technical and methodological skills for elaborating Internet-based courses, planning the learning process and assignments, student support, motivation and activation of students in case of self-instructional learning.
2. In addition to seminars and courses for the teachers, the technical and methodological support in elaborating web-based courses is offered by the 8 educational technologists.
3. At the moment the developing a system for ensuring and auditing the quality of e-learning courses (incl. quality criteria for e-learning, continuous internal evaluation of the courses, quality signs, etc.) is taking place at the Estonian e-University consortium

### **Economy**

Since the University of Tartu relies largely on the on-campus students, there are no exact calculations as to the income and profitability of online education. Secondly, as developments in this area are supported significantly by project funding, the decisions are not always made on financial basis.

On the other hand, this situation will change due to the shift in the balance of the market. As ca 2/3 of our students pay for their studies and ca 1/3 of students are Open University students (they study besides work and family) university has to consider seriously their needs. In addition, the number of secondary school graduates will decrease rapidly in Estonia in coming years which means even stronger competition between institutions and therefore pressure to meet the needs of market.

## **Conclusions**

The prevailing factors of success in online education at the University of Tartu:

- Very well developed ICT infrastructure, high digital literacy and readiness to use online learning among the target groups
- Support and centralised services offered by the Estonian e-University consortium
- University is not solely dependant on the success of its online initiatives, thus providing flexibility and quick decision making
- Skilled support personnel