

<https://helda.helsinki.fi>

---

## Information and Communication Technology (ICT) Driving License at the University of Helsinki

Heino, Tiina

2006

---

Heino , T 2006 , Information and Communication Technology (ICT) Driving License at the University of Helsinki . in Unknown host publication . EAHIL: Europe as an Open Book , Cluj Napoca , Romania , 11/09/2006 .

---

<http://hdl.handle.net/10138/33880>

---

acceptedVersion

---

*Downloaded from Helda, University of Helsinki institutional repository.*

*This is an electronic reprint of the original article.*

*This reprint may differ from the original in pagination and typographic detail.*

*Please cite the original version.*

# **ICT Driving Licence at the University of Helsinki: Power from Synergy and Cooperation**

10th EAHIL Conference, Cluj, Romania  
11 - 16 September 2006  
Parallel Session Ic (Education and learning) 13.9.2006  
Tiina Heino  
National Library of Health Sciences (Terkko)  
University of Helsinki  
Finland  
[tiina.m.heino@helsinki.fi](mailto:tiina.m.heino@helsinki.fi)

## ***The aim of the presentation***

In the 11 faculties of the University of Helsinki each year almost 4 000 new students start their studies. The goal of the ICT Driving Licence is to make sure that each one of these new students has the necessary information and communication technology (ICT) knowledge and skills. This 3 ECTS (European Credit Transfer System) course is compulsory for all new students in all faculties.

The aim of my presentation is to describe the ICT Driving Licence project, and how it is implemented and integrated into the curriculum of the 1-year-students at the Faculty of Medicine. It also presents the work done in co-operation between the Medical Faculty and National Library of Health Sciences. The subject areas of the ICT Driving License are presented, describing also their main contents. The subject areas for which the libraries are responsible are more thoroughly described.

The key factors for the success of the project are presented, e.g. the co-operation between the various participants of this project (teachers, librarians, information specialists, IT experts, etc.). Also the weaknesses and threats are discussed. The ICT Driving License project is continuing, and the future tasks and development are described.

## ***Background of the ICT Driving Licence***

In the background was the reform of the degree structure at the University of Helsinki, which was based on the so-called Bologna Process. The aim is to guarantee all first-year-students equal skills in information and communication technology (ICT), because the ICT skills are regarded very important in the successful studying process.

In addition there is a 3-year national program for Information Literacy in Finland which started 2004. The goal of this project is to integrate IL standards into students' curriculum.

The reform of the degree structure (two cycles) means that new students have a possibility to do their Master degree in another subject area than they did their Bachelor degree. So the students' basic ICT skills and knowledge shouldn't be dependent on which subject area/faculty they do their studies.

Because the new students have very heterogeneous ICT skills, there is a need for the common ICT Driving Licence. Many faculties had already developed their own courses in IT and information seeking. This project gathered together knowledge, experiences, skills, and materials that people in different faculties had already done.

The common curriculum (for the 11 faculties) was developed together in cooperation with all faculties, the IT department, and the libraries at the University of Helsinki.

The ICT Driving Licence Project has a fulltime coordinator since its start the autumn 2004. In the spring 2005 followed the production phase when the whole working group together with a hired consultant created the learning material on the web, teaching guides, and exams. In the autumn 2005, the ICT Driving Licence pilot started in all 11 faculties. During the pilot year 2005-2006 students and ICT Driving Licence teachers gave feedback.

The spring 2006 was time for the further development of the course: the learning material and exam questions were scrutinized. The problematic questions were deleted and new questions and tasks were added – specially questions and tasks measuring skills. An important phase was also the feedback and the sharing of the best practices between the faculties.

At this moment, the learning material is available in Finnish and Swedish, but the materials will be available also in English by the end of September, 2006.

## ***Content: The five modules complete each other***

### **1. Introduction to the use of computers**

Learning goals: the new student will learn how to use a computer and its add-ons, as well as managing files and indexes. She/he will know what to do in the most common IT problem situations. Also the basics of using the internet are presented and the student will be familiar with 'netiquette' - etiquette on the internet.

- Computer functionality
- Files and directories
- Computer programs
- The Internet and WWW
- E-mail
- Printing

## **2. The computer environment at the University of Helsinki**

The second module introduces the new student to know how to use the computer environment and its services at the University of Helsinki. She/he will also learn online student services offered by the university which she/he can use to further her/his own studies. Contents:

- User accounts and usernames
- Computer systems
- Computer facilities and services
- E-mail at the University of Helsinki
- Plan your studies - WebOodi and Alma
- Online studies

## **3. Modifying and presenting data**

The new student will be able to choose the correct tool (program) for her/his assignments and know the basic principles of how to use it. She/he will also know how to transfer information between different programs. Contents:

- Common data-presentation types
- Word processing
- Table calculations
- Slide shows
- Data transferral between programs

## **4. Information seeking**

The information seeking module gives a basic introduction to the services and information resources of the University of Helsinki and information seeking. The sincere aim is to avoid presenting too much material so a first-year student would not get overwhelmed. The skills will be deepened later. The goal is to cover those kinds of information seeking tasks that most first-year students need: how to find a course book and how to conduct an easy search by topic. In order to give students necessary background information to be able to conduct these tasks, the following topics are covered: information retrieval techniques, types of information resources, how to use the library catalog and the information retrieval portal, how to search the open web, and the basics of copyright issues. The University of Helsinki libraries are responsible for the information seeking module. Contents:

- Planning the information search
- Finding material from the HELKA libraries (the libraries at the University of Helsinki)
- Seeking information about a specific subject
- Utilising and evaluating search results

## **5. Data security and privacy protection**

The new student will understand the meaning of data security with respect to her/his studies and leisure. She/he will also be able to affect her/his own data security through her/his own choices. Contents:

- Introduction to data security and privacy protection
- Protecting yourself from threats

## ***ICT Driving Licence at the Medical Faculty of the University of Helsinki***

The faculties tailor their own teaching sessions, which together with the common learning material (incl. tests) build the ICT Driving Licence study module.

In the Faculty of Medicine ICT Driving Licence consists of following parts:

- Self-learning material on the web
- Entry level tests and final exams
- Lecture
- Compulsory ICT group sessions
- Optional group sessions
- Feedback collection

In the Faculty of Medicine, the Research & Development Unit for Medical Education is responsible for realization for ICT Driving Licence study module, and it's done together with the National Library of Health Sciences (Terkko).

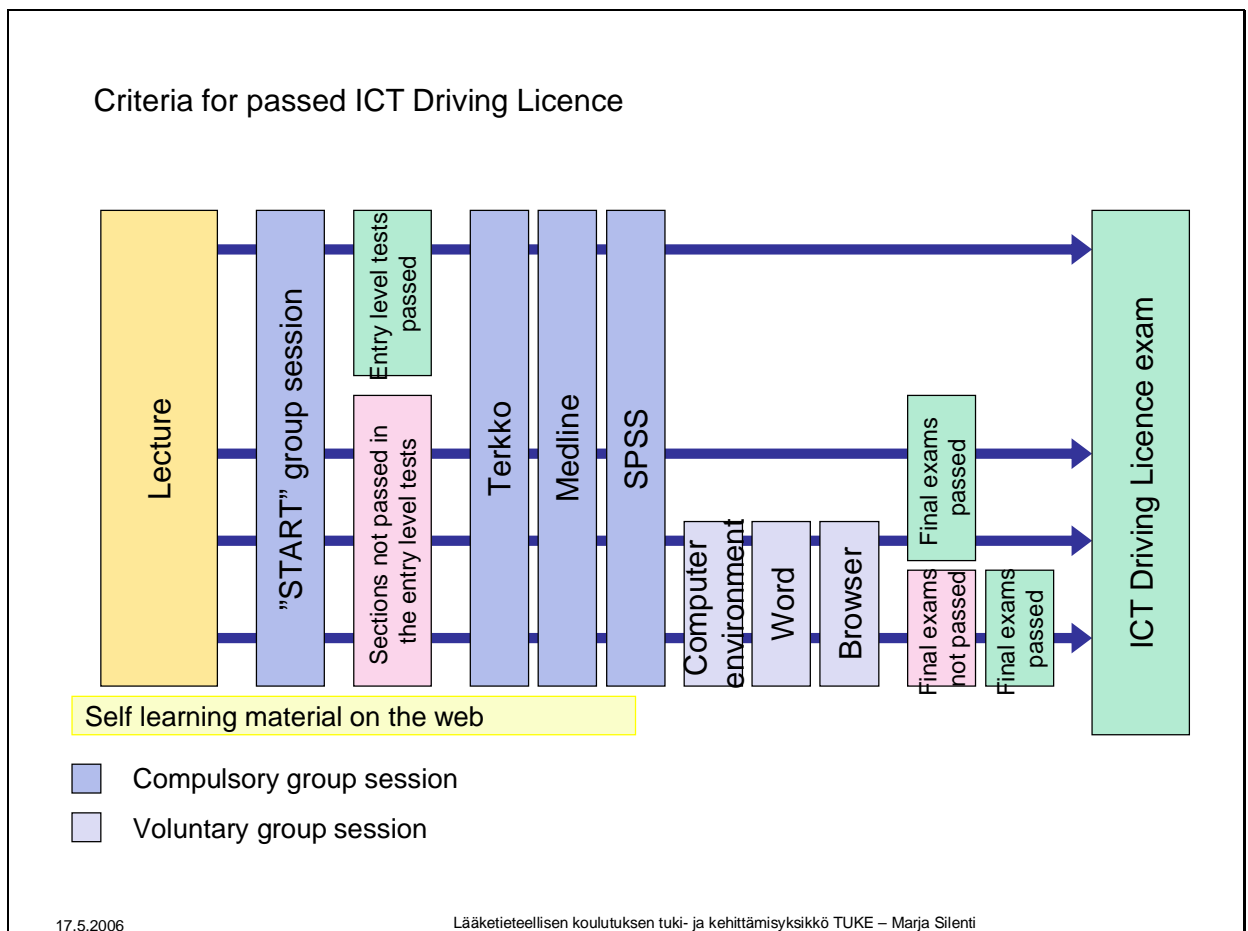


Fig.1. Components of the ICT Driving Licence at the medical faculty of the University of Helsinki

### Self-learning material on the web

Until now the open access learning material is only in Finnish and Swedish but it will be available in English by the end of September 2006.

<http://www.helsinki.fi/tvt-ajokortti/english>

### Compulsory ICT group sessions:

- “START” group session – Introduction to WebCT etc.
- Terkko and its services
- Medline – introduction to medical information
- SPSS – introduction to the basics of statistics

### Optional group sessions:

- Word-text processing
- The computer environment at the University of Helsinki (medical faculty)

### **Entry level tests and final exams:**

The course and the tests are administered on the WebCT e-learning platform. The entry level tests and the final exams have similar types of questions, which are randomly selected from a pool of questions. Each section has its own test (5 tests all together).

Both entry level tests and final exams are supervised. There are 10 questions in the test for each section, 70 % right is the minimum score for passed test. If the student gets 70% right already in the entry level test is that section passed. If not, the student attends the final examination in those sections which were not passed in entry level test.

Before start of their studies the new students have received a welcome letter also from the Research & Development Unit for Medical Education. In the letter is the ICT Driving Licence explained, so they have a possibility to prepare themselves in the ICT Driving learning material on the web.

### **Terkko and its services – group session:**

The curriculum at the Faculty of Medicine is based on the PBL-education (Problem Based Learning), so the students are divided into 10 persons/groups, (160 new students start every autumn). Every group has a 2h 15min teaching session at the library's PC room. We're 3 teaching information specialists, and we divide the teachings 5-6/session/each.

Content of the group session is the practical use of the library, its catalogue, electronic journals, electronic books, web-dictionary, and introduction to the Nelli-portal (information resources for the University of Helsinki). The group session includes also an optional library tour.

### **Feedback collection**

Feedback is collected from feedback forms on several occasions. Students who passed the course are asked to fill out a feedback form on the WebCT learning environment. Last year we did not get feedback from all students because it was voluntary to give feedback. The self-learning material contains a feedback button and it is possible to give feedback on each chapter of the material. After the supervised examination students can also give online feedback about the examination. Qualitative interviews and observations are also used to collect feedback.

Faculties are responsible for the administration of the course: registration, tests, and credits. The University of Helsinki Libraries are responsible for the hands-on information retrieval sessions and organizing of the library tours. The self-learning material and test questions for the information retrieval module are produced in cooperation with all the libraries of the University of Helsinki.

## ***How did we succeed***

Students' self-assessments indicate that the course improved the ICT skills of the students considerably (Fig. 2).

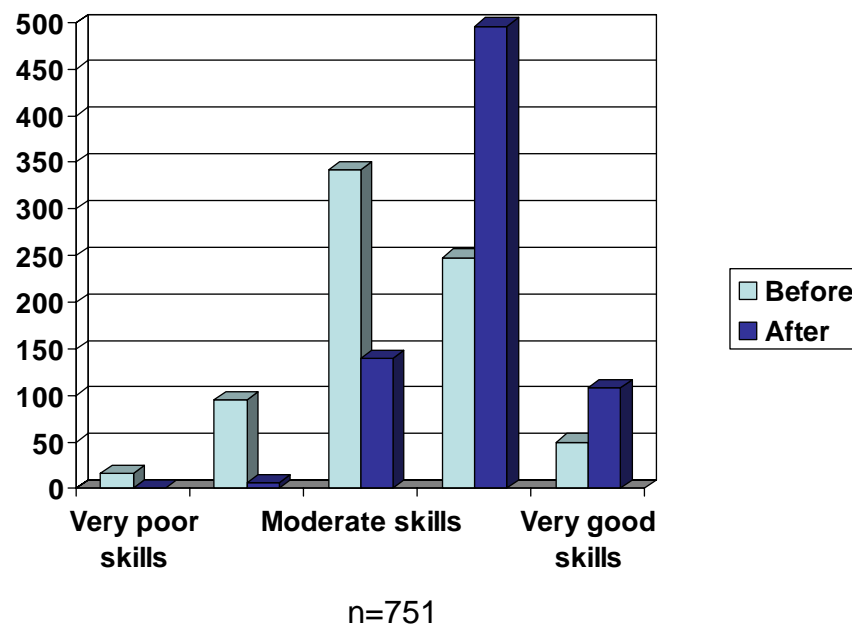


Fig. 2 Students' self-assessment of their ICT skills before and after the course

### **Factors for Success**

Four key factors for the success of the project are coordination, cooperation, timing, and support from the university management.

#### **Coordination**

The project is truly a project of the whole university. The full-time coordinator for the project has been very skilled to make people work together for the shared goal.

#### **Timing**



Because of the Bologna process, University of Helsinki adopted a two-cycle model for degrees starting on 1 August 2005. Therefore the time was right for launching a new course.

### **Support from the university management**

The Vice Rector who is responsible for the implementation of the reform of the degree structure and for the teaching and library issues, has been an active supporter of the project together with the other representatives from the university management. The ICT Driving Licence curriculum is also a fixed part of the University of Helsinki's Virtual University recommendation for the ICT studies in the curriculum reform.

### **Cooperation**

There has been fruitful cooperation on different levels:

1. University level cooperation in the project team: IT department, pedagogical units, libraries, IT teachers and IT pedagogical support personnel from all faculties, and also representatives from the Student Union and Open University
2. Faculty level cooperation with IT teachers and librarians
3. Course level cooperation with the teachers of the introductory courses and librarians
4. Library level cooperation: This project brought together the teaching librarians and enhanced cooperation at the ten libraries of the University of Helsinki.

All the faculties and libraries are working together to improve and maintain the ICT Driving Licence. One library/faculty could not have done all this.

### **Challenges for the future**

*Although the project has been successful there are challenges waiting in the future.*

### **Funding**

Because coordination has been so crucial for the project, it is very important to secure a permanent funding in the future. Until now, the funding has been project-based. The university needs a permanent position for a coordinator of the ICT education.

### **Compromising**

The university-wide mass course means inevitably compromising. One size does not fit for all and the self-learning material may contain parts that are not as important in all faculties. Therefore, it is very important that students participate in the hands-on sessions or lectures which address the subject and faculty specific issues.

### **ICT Driving Licence for the faculty and staff**

The faculty and staff need some means to improve their ICT skills. Sometimes faculty and staff have worse ICT skills than students. There have been some preliminary plans for the ICT Driving Licence for the faculty and staff. However, there are many challenges because the skills and needs of the faculty and staff may be even much more heterogeneous than students' skills and needs.

### **Pedagogical soundness**

The pedagogical principles of material and tests need to be continuously assessed and developed in the future. In the exercises and tests questions and tasks measuring skills should be even more implemented.

The self-study learning material and exercises give the opportunity for the students to come back to the learning material when needed, and they're already doing that. The ICT Driving Licence provides just a starting point for the learning of ICT skills: ICT literacy skills need to be embedded appropriately in curricula. Despite these concerns, the ICT Driving Licence provides a solid foundation on which to build the ICT skills later.

Further Information:

ICT Driving Licence

<http://www.helsinki.fi/tvt-ajokortti/english/>

Curriculum Plan for Information Literacy: a Joint Virtual University Project of the Finnish University Libraries 2004-2006

<http://www.helsinki.fi/infolukutaito/english/>