



# FHN3015 Involving old people in engineering and design 7.5 credits

Involvera äldre människor i teknikutveckling och design

This is a translation of the Swedish, legally binding, course syllabus.

## Establishment

Course syllabus for FHN3015 valid from Spring 2018

## Grading scale

G

## Education cycle

Third cycle

## Specific prerequisites

Accepted for doctoral studies at KTH, KI or from other PhD programs.

## Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

The aim is to give the PhD students knowledge and tools to make older people participate in the development, testing and evaluation of technical applications and systems in an efficient and meaningful way.

## Course contents

More people live longer while at the same health care and public functions are digitized. This means that design and use must be adapted to the values and experiences of multiple generations, while older people have new expectations for their later lives. The course addresses questions about how elderly people can participate in design and innovation processes, why engineers can benefit from this, levels of participation, methods that meet the needs and demands of elderly people, usability related to ageing, and how to use older people's life experiences and expectations in innovation and design.

## Disposition

The course consists of a project assignment including a written assignment and joint seminars. PRO, SEM, INL. The project assignment is expected to be linked to the doctoral dissertation or planned work after the dissertation ends.

## Course literature

N. Oudshoorn, T. Pinch (eds.) 2003, How Users

Matter, The Co-construction of Users and Technology, Cambridge, MA, US.

Arnstein, S. (1969) A ladder of citizen participation. JN of the American Institute of Planners, July pp.216-224, alt. Bohgard, M. et al (2008) Arbete och teknik på människans villkor. Solna: Prevent, sid. 602-608.

Damschroeder, Laura J, Aron David C, Keith Rosalyn E, Kirsh Susan R, Alexander Jeffery A. and Lowery Julie C. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. Implementation Science 2009: 4:50: 1-15.

Lag (2003:460) om etikprövning av forskning som avser människor. Svensk författningssamling 2003:460 t.o.m. SFS 2015:320, kombinerat med fler dokument från etikprövningsnämnden.

Östlund, B., Olander, E., Frennert, O. & Jonsson, O. STS-inspired design to meet the challenges of modern ageing. Welfare technology as a tool to promote user driven innovations or another way to keep older users hostage? Technological Forecasting & Social Change (Special theme on Science, technology and the Grand challenges of Ageing). Vol.93 pp.82-90. April 2015.

Frennert, S., Efring, H. & Östlund, B. Case Report: Implications of Doing Research on Socially Assistive Robots in Real Homes. Int JN of Social Robotics, Accepted January 11, 2017.

Essén A & Östlund, B. Laggards as Innovators? Old Users as Designers of New Services & Service Systems. *International Journal of Design* 2011, Vol. 5 No. 3, pp. 89-98.

Kombinerat med aktuella forskningsartiklar som delas ut vid start.

N. Oudshoorn, T. Pinch (eds.) 2003, *How Users*

Matter, *The Co-construction of Users and Technology*, Cambridge, MA, US.

Arnstein, S. (1969) A ladder of citizen participation. *JN of the American Institute of Planners*, July pp.216-224, alt. Bohgard, M. et al (2008) *Arbete och teknik på människans villkor*. Solna: Prevent, sid. 602-608.

Damschroeder, Laura J, Aron David C, Keith Rosalyn E, Kirsh Susan R, Alexander Jeffery A. and Lowery Julie C. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science* 2009: 4:50: 1-15.

The Swedish Ethical Review Act (2003:460). *Svensk författningssamling* 2003:460 t.o.m. SFS 2015:320, kombinerat med fler dokument från etikprövningsnämnden.

Östlund, B., Olander, E., Frennert, O. & Jonsson, O. STS-inspired design to meet the challenges of modern ageing. Welfare technology as a tool to promote user driven innovations or another way to keep older users hostage? *Technological Forecasting & Social Change* (Special theme on Science, technology and the Grand challenges of Ageing). Vol.93 pp.82-90. April 2015.

Frennert, S., Efring, H. & Östlund, B. Case Report: Implications of Doing Research on Socially Assistive Robots in Real Homes. *Int JN of Social Robotics*, Accepted January 11, 2017.

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Combined with research papers distributed when the course start.

## Examination

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

The course is examined by presenting the result of the project assignment and through active participation in joint seminars.

## Other requirements for final grade

P/F. Participation in seminars is mandatory and must be at least 80% for approved.

## **Ethical approach**

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.