

Faculty of Engineering, LTH LTH Faculty-wide

# Technology, Risk and Research Ethics

(Teknik, risk och forskningsetik)

Technology, Risk and Research Ethics is an elective faculty-wide third-cycle (PhD) course at the Faculty of Engineering. The course addresses questions such as "Is technology research value-neutral? Are there types of research no one should conduct for ethical reasons? How can unethical research be stopped?". The course introduces ethical concepts, theories, questions and rules of relevance to technology and engineering research.

Aim:

The aim of the course is to provide an introduction to the most important theories and issues of normative ethics and research ethics relevant to technology and engineering research and to introduce ethical issues related to risk assessments.

#### Learning outcomes:

### Knowledge and understanding

For a Pass on the course, participants shall

- have general knowledge of the key theories and issues of normative ethics relevant to technology and engineering research
- have general knowledge of ethical issues related to risk assessments
- be able to identify problems of research ethics in different scientific contexts, including the research carried out by the doctoral students within their PhD programmes.

## Competence and skills

For a Pass on the course, participants shall

- be able to analyse ethical issues in technology and engineering research, including the research carried out by the doctoral students within their PhD programmes
- be able to apply current rules of research ethics to research on humans and of different kinds, including (where relevant) the research carried out by the doctoral students within their PhD programmes
- be able to use key concepts of ethics and research ethics in oral and written reports.

### Judgement and approach

For a Pass on the course, participants shall

 demonstrate willingness to discuss ethical issues in their own and others' research. Content:

Fundamental concepts and theories of ethics, accountability, views on harms and benefits, risks and precaution, fairness, informed consent, regulations on research ethics and ethical vetting, commercial and other special interests, academic misconduct, publication ethics.

The course starts with an introductory part providing general knowledge of normative ethics relevant to technology and engineering research and then deals with ethical issues associated with risk assessments and key issues, concepts and applications of research ethics.

Instruction:

The course consists of lectures, seminars, group discussions and written assignments.

Assessment:

The assessment is based on reports of written assignments. For a Pass on the course, the participant must have attended at least 80 % of the scheduled activities and completed and passed all assignments in the course.

Scope:

The course corresponds to 3 weeks of full-time work and to 4.5 credits in third-cycle (PhD) studies (with Pass and Fail as available grades), if this is in line with the individual study plan.

A current timetable is available on the course homepage.

Admission:

To be admitted to the course applicants have to be part of a PhD programme at LTH.

Selection:

Priority is given to: 1) PhD students who have previously applied to the course and were eligible at the time, 2) PhD students who are closest to finishing their PhD programmes.

Language:

The course is taught in both English and Swedish.

Homepage:

http://www.lth.se/omlth/kompetensutveckling/gemensamma\_forskarutbildningskurser

Reading:

European Commission (2010). European Textbook on Ethics in Research.

Gustafsson, B., Hermerén, G. & Pettersson, B. (2011). Good Research Practice.

Swedish Research Council.

A selection of research articles and law texts will be made available at the start of

the course.

Course directors:

Assistant researcher **Linus Broström** (linus.brostrom@med.lu.se), Department of Medical Ethics.

Information on current teachers on the course is available on the course homepage.

Category:

The course is a faculty-wide third-cycle (PhD) course at LTH.

Other:

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