



Fakulteten för teknik- och naturvetenskap

## Forskarutbildningskurs

### Beslut om inrättande av kursen

Kursplanen är fastställd av fakultetsnämnden vid Fakulteten för teknik och naturvetenskap 2012-12-06 (Dnr HNT 2013/22), att gälla från och med vt 2013.

### Forskarutbildningsämne/område

Computer Science (Datavetenskap)

### Kursbenämning (svenska och engelska)

Integritetsskyddande teknologier  
Privacy-enhancing Technologies

### Högskolepoäng

7,5 hp/ECTS

### Undervisningsspråk

English

### Utbildningsnivå

PhD education

### Målgrupp och behörighetskrav

This course is for PhD students in Computer Science or related subjects.

### Kursens mål

Privacy has become an increasingly important topic as our data and data about us is both increasing and more and more being collected and mined. This course will give an overview of privacy concepts and terminology as well as concrete examples of privacy-enhancing technologies (PETs) and some of their applications.

The students should be able to:

- recognize threats to privacy
- explain the basic privacy terminology and concepts and use them correctly
- find and apply documentation of privacy-related problems and technologies
- get an overview of existing privacy-enhancing technologies (PETs)
- analyze system PET descriptions in terms of their privacy protection and how they work
- identify vulnerabilities of system descriptions and predict their corresponding threats
- select counter-measures to identified threats and argue their effectiveness
- compare counter-measures and evaluate their side-effects
- present and explain their reasoning to others

such that the students can:

- reason about privacy in general and PETs in particular and
- incorporate existing PETs into their research or start developing new ones.

### **Kursens huvudsakliga innehåll**

This course has been developed within SWITS, which is the Swedish IT Security Network for PhD students. The course covers:

- Legal context for privacy in Europe
- Fundamental privacy terminology and concepts
- A range of privacy-enhancing technologies (PETs)

Online participation is offered for remote students.

### **Kurslitteratur och övriga läromedel**

The course literature consists of a reading list of selected research papers. The current reading list will be available on the course website and will be amended as the course proceeds.

### **Examination**

To pass the course, the students successfully complete the following tasks.

- Do assigned reading
- Select a topic
- Suggest a relevant reading list for the other participants
- Present the selected topic
- Lead a discussion on the selected topic
- Hand in a written assignment

Participate in at least 80% of the meetings, preferably in person. Missed meetings can be made up by a written report on the meeting topics.

### **Kursintyg**

Will be issued upon request of the PhD student.

## **Kvalitetsuppföljning**

The course will be evaluated in oral and written form during and after the course. The evaluation will be summarized and reported by the teachers according to Högskoleförordningen 1 kap. 14 §

## **Betyg**

The grading is pass (godkänd – G) or fail (underkänd -U)

## **Litteraturlista**

The current literature list is published on the course homepage, (see: <http://www.csc.kth.se/~buc/PPC/syllabus/> for the literature list for the course held in 2012/2013).