

Call for participation

Quantitative Research Methods in Computing Education Research

PhD course organised by Department of Computer Science and Engineering, TKK, Finland

Computing education research is a cross-disciplinary field that investigates various software/hardware tools, teaching and learning methods or approaches applicable to support better learning and/or teaching in computing disciplines (computer science, computer engineering, software engineering, information systems). A central part of this research field is evaluating the impact of novel ideas and contributions on students' learning outcomes and working methods as well as teachers' work. In the evaluation, both qualitative and quantitative methods are applicable.

In spring 2008, Helsinki University of Technology offers the research methods course that concentrates on quantitative methods. The course aims at giving a good overview of relevant quantitative methods and designing experiments with hands-on exercises. The applicability of different methods in varying cases is also considered.

By the end of this course the students will have:

- skills in design of research that is quantitative in nature
- knowledge of the foundational basis of descriptive and inferential statistics
- skills in choosing appropriate statistical techniques
- practice in the use of statistical techniques
- knowledge of how to report results of statistical tests.

The course will involve practical training with the statistical methods using a computer based statistical package.

The course is directed for doctoral level students and researchers working in computing education research or educational technology. However, students from other disciplines may also find the course interesting and fit for their needs. Students close to graduating as MSc, for example, working with their MSc thesis project may also enrol. At most 20 students are accepted, and in case of more people enrolling, preference is given to students working in computing education research / educational technology.

The course will be organized as a period course on the first part of February: Part 1 (February 6-8th) and Part 2 (February 13-15th). On each day there will be 2-4 hours of lectures interleaved with practical hands-on exercises with statistical software packages (SPSS) and data. Between the two parts there are home exercises. In addition, a personal project work, preferably related to one's own research work is included and is completed after the course. Completion of this course will entitle to 5 ECTS. If the project work is larger than the course extent allows students can get additional 3 ECTS.

The course will be given by *Dr. Judy Sheard* from Monash University, Australia. She is leading the Computer Education Research Group at Monash and she has extensive background in applying statistical methods in the field.

Registration and further questions

Please register at the web site by 25.1.2007 at the latest.

Course home page: <http://www.cs.hut.fi/Studies/T-106.5550/k2008/english.html>

Contact Judy Sheard Judy.Sheard@infotech.monash.edu.au or Päivi Kinnunen <Paivi.Kinnunen@cs.hut.fi>