## Course analysis for IK2560 Mobile Networks and Services

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#### **COURSE DESIGN**

The course is designed to give a holistic overview of mobile networks and services. It consists of three parts: An initial lecture series (five lectures) to give an overview of the subject area,

an introduction to the theory of signals, systems, radio communication and digital transmission examined by an online exam pass/fail exam. This part consists of six lectures and six recitations. Moreover, students work on a small research project (4.5 hp) in groups of 4-5 supported by supervision and four seminars. The first two seminars are presentations of research papers by the students, and the last two are progress presentations of the research project. The course ends with the final presentation of the research project and submission of a written project report. These are graded A-F.

# THE STUDENTS' WORKLOAD

The LEQ gives a rather low workload of 9-17 h/week while some stating just 0-2 h or as much as 24-26 h/week. The reasons for this can be that the students have studied the material before or the examination could have been more demanding.

### THE STUDENTS' RESULTS

37 of 41 registered students passed the course (90%).

# **OVERALL IMPRESSION OF THE LEARNING ENVIRONMENT**

There are few responses from the LEQ, nevertheless those give at least a hint what the students think. Most students seem to be happy with the course, but a few are not. The student group consists of students with a background in electrical engineering and students with a computer science and engineering background. The survey gives the impression that some students have studied some of this material in depth before and think that the course is redundant. Our goal is to both give an introduction to the subject area *and* an introduction to research in the subject area. Hopefully, the latter is interesting for students with a background in mobile networks and services. We seem to fulfil that goal partly, but not completely.

#### ANALYSIS OF THE LEARNING ENVIRONMENT

The polar diagrams are relatively even, but a few areas can be improved: make the course more challenging, clarity of the learning outcomes, clear key concepts, and make the grading clearer to all students.

# **ANSWERS TO OPEN QUESTIONS**

The students wish to have more support and supervision during the project. Advice to future participants is to plan the study time carefully.

### PRIORITY COURSE DEVELOPMENT

- 1. Revise the examination to make it clearer and somewhat more stringent
- 2. Separate the review sessions material (signals and systems) and make them available online. Use that time on the central subjects.
- 3. Supervision slots should be scheduled for the project groups.

### OTHER INFORMATION