Course analysis for IK1330 Wireless Systems
Course analysis carried out by (name, e-mail): Anders Västberg, vastberg@kth.se

COURSE DESIGN

The course is designed to give an overview of wireless systems. It is divided into five parts: transmission fundamentals, radio links, wireless networks, wireless systems, and tele-economics. The learning activities consist of 13 lectures, three seminars, two labs, and two case studies. The case studies are very open-ended and are designed to train the students to find their material and decide how to analyze and present the case study. The course is examined by seminars (participation), case studies (written reports, opposition reports, and oral presentations), and labs. There is no written exam.

Changes from the last course round:
1. Some seminar problems have been revised.
2. The structure of the case studies and requirements have been changed.

THE STUDENT'S WORKLOAD

The workload for case studies is still high for the case studies. New lectures have focused less on calculations and more on the overall structure and new technologies. The focus on new technologies has changed the direction of the case studies to qualitative overviews instead of quantitative results.

THE STUDENTS' RESULTS

17 of 21 registered students passed the course, or 81%, which is higher than last year's 77%

OVERALL IMPRESSION OF THE LEARNING ENVIRONMENT

There were three teachers and two assistants were involved in the course. The course was given in classrooms. The modules were divided among the teachers, while one assistant handled the seminars. Some of the students criticized the case studies, as they are not clearly defined, making it hard to know what is required to pass or get a specific grade. They are also time-consuming to grade, and given AI tools, it is easy to generate material for the case studies with minimal work or learning. The tasks should change to more defined problems and be discussed in seminars.

The course material is rather extensive and should perhaps be more focused.

We also need to change the labs as the software for planning wireless coverage is old and discontinued. Alternatives are to use some newer kind of software or more particle labs using, for example, SDR (HF) or Raspberry Pis (Wifi and Bluetooth connectivity).

PRIORITY COURSE DEVELOPMENT

1. Continue to revise the seminar problems.
2. Change the case studies to numerous minor problems.
3. Revise the course introduction page.
4. Revise one lab.
5. Provide solutions to all problems in the course literature.

OTHER INFORMATION

-