Course analysis

General information

This document provides the course analysis about the master degree course

Introduction to Signal Theory EQ 1210 and Signal Theory EQ 1220

given in the first period 2013. The course responsible was Tobias Oechtering, Communication Theory, EES, KTH. Email: oech@kth.se, tel.: 08 790 8462. The course "Introduction to Signal Theory" covers the first 2/3 of the course "Signal Theory." Further, the requirements to pass the project and the difficulty of the exam are lower. The tutorials and projects were given/guided by the teaching assistants Efthymios Stathakis, Hamed Farhadi, Zuxing Li, and Frédéric Garby, all PhD students in the Communication Theory Lab.

Course organization:

- 12 x 2h lectures
- 12 x 2h tutorial given in two groups with group work
    - 5 voluntary group solutions can be handed in (new)
- 5 voluntary reflective questions essays (new)
- Two mandatory take home project assignments
- One written exam, 5h.

Requirements:

- Passed project assignments (PRO1: 1cu, PRO2: 1cu) , grading: passed/failed
- Exam (TEN: 5.5cu), grading: A-F
    - Exam consists of two parts:
        - Part A: Questions, graded pass/fail,
        - Part B: Problem solving, graded only if part A passed and graded A-F

Material:

- Lecture notes: "Signal theory" by P. Händel, R. Ottoson, H. Hjalmarsson, and M. Jansson.
- Collection of problems in Signal Theory
- Old exams available at the course homepage
- The KTH table of signal processing formulas (in English)
- Two project assignments (made available online during the class)
- Report templates in Word & Latex
- 5 reflective question sets for reading assignment (new)
- Lecture slides
- Solutions from suggested tutorial problems

Statistics

- 50 students registered for the course EQ1220
  from programs: TTLSM, TTFYM, TSCRM, TIKTM, CELTE, TIVNM DMTE, TELFM, CTFYS, exchange students
- 2 students registered for the course EQ1210
  from program: CINEK

All students have to do two homework project assignments which are allowed to be done in groups of at most two. The students have the opportunity to revise their project report after a first evaluation of the project report.

Project 1:

- 35 failed and 14 passed in the 1st round and 35 passed in the 2nd round.

Project 2:

- 23 failed and 26 passed in the 1st round and 23 passed in the 2nd round.

Exam written on Oct 29th, 2013, 8:00-13:00: Results see *Section Exam results*

Re-exam written on Jan 8th, 2014, 8:00-13:00

Course history and development

This was the third time that I gave this course after 2011. The course was previously given by Magnus Jansson, SP and I did not do any major change on the topics covered by the course, but I revised and updated the slides from last year. In particular, I put a few repetitive and write-intensive derivations on slides. The extra time has been used to give a few more examples and spend more time on explanations of some concepts. We revised project 1 which was introduced last year.

I kept the course material, course book, problem collection, and project assignments, but we revised the reflective questions on the reading assignments. Now students were asked to write five times a short essay on the reflective questions about two chapters and hand them in before the lecture. In the year before, the students were asked to hand in 9 essays. For each essay which shows that the student read the corresponding chapter, the student obtained one bonus point for Part 'A' of the exam. This was done to reduce the writing load and make bonus points available which were used to provide extra motivation for the tutorial. The style of the tutorial has been modified as follows. First the TA gave a brief repetition of the most relevant aspects of the current material. Then the students worked in groups to solve the recommended problems. The TA stopped the group work before the students finished and discussed the solution jointly with the students. Five times the students were allowed to hand in their group solution for which they could obtain one bonus point for Part 'A' of the exam. The session when a bonus point could be obtained was not revealed beforehand. Similarly, the problem in the session which group solution will be assessed was not revealed beforehand to increase participation for all problems in all tutorial sessions. The students obtained the bonus point when the group solution showed a reasonable attempt (participation in group discussion was most important).

We kept the style of the exam of last year. The exam was split in two parts: Part A is a questionnaire, where students have to answer questions with 'Yes' or 'No'. A wrong answer gives -1 point, a correct answer gives +1 point, and no answer gives 0 point. EQ1220/EQ1210 students had to have 8/5 points to pass part A and they could have obtained 10/8 bonus points from the reflective questions essays + tutorial, i.e., students could pass this part during the course. This was done by intention to activate students, which worked perfectly. Part B was about problem solving similar to previous exams. The grade was based on Part B only, which was only assessed if the student passed part A.

As successfully done in the last year, to increase the response rate for the course feedback, I provided a few hints about the exam in the internet, while the link was provided in a question in the questionnaire (question 19). I told the students, if they answer the questions, then they get the link and the information. This has again led to a very high response rate.

The course page on KTH social has been updated and we provided a few additional references to supplementary literature for further reading. The course page again worked fine and a few students used it to post questions.

This year I introduced a responsibility matrix for the teaching staff (teacher and TAs) to clarify the roles, responsibilities, and deadlines when something was supposed to be done. The responsibilities were discussed and distributed before the course in an early course planning meeting. Efthymis was the designated main TA who supposed to take more responsibility; in particular he was responsible to organize the design of the exams. He also helped Zuxing who worked as a TA for the first time. Structuring the teaching work made it easier for the teacher to know whom to contact and for the TAs to know what needs to be done and to plan their own teaching work.

Course feedback

The questions and the answers can be found in *Appendix Course Evaluation Results.* Further, the teacher collected feedback from the TAs.

Discussion

The feedback from the students shows that the students are mostly happy with the course. Most of the students confirm that the bonus point system motivates the students and helps to be active during the course.

The response on the threshold concept is very divers with many non-sense answers which shows that the students did not understand the question. However, several students wrote "stochastic process," "filtering." Personally, I believe that the concept of stochastic signals is the threshold concept of the course so that many students identified the core issue of the course.

In one lecture room the beamer control does not work properly. Once I did not manage to get the beamer working so that I gave the lecture completely on the board. Since I was not prepared for this, the presentation was not perfect. Although, I believe that that my 'whiteboard' presentation style is Ok, I will try to improve in future.

The tutorial was mostly good. Several students would like to have individual work, but I am now convinced that group work is a very good learning activity which also prepares the students for their

work-life after graduation where they most of the time have to work in teams. One student suggested that groups should explain their solution to each other, which is an interesting idea which should be considered next time.

A few students ask for fewer derivations in the lecture. This is a common concern which I partially followed already in the last rounds by putting some derivations on the slides. Generally, I consider derivations and their explanations to be important part of the lectures – there is no other place where the derivations are explained. However, in the next round I will try to make them less "boring," perhaps more interactive. If some derivations can be skipped or shortened, then the time can be spent on more examples and explanations.

A challenge of the course is the diverse background of the students. In particular EQ1210 students barely have the knowledge needed for the course. Therefore, a knowledge level test should be considered in the next round. Perhaps, an online diagnostic test can be done before the course. If the test shows clear deficits, then the lectures and tutorials can be perhaps adapted to it.

There are few students who decided late to join the course. I provided support so that they got the chance to catch up, but they repetitively turned out to be students with problems. This issue should be observed in the next rounds and if such problems happen again, then a good teaching strategy for those students should be developed (perhaps a kind of test which forces them to catch up).

In the exam, one EQ1220 student got the EQ1210 exam from the guard. I invited the student to do an old equivalent problem when I invited other students to solve a problem for the FX test. This resolved the issue. However, since the guards repetitively have problems, in future I plan to provide only one exam with different gradings for the course codes similarly as P. Händel does.

50% of the students had a conflict in their schedule. I decided to add the two course mentioned by EIT students to the list of course to which a conflict free scheduling should be done, because the courses are mandatory for the EIT students. The remaining conflicts are hard to resolve due to large variety of students.

Ethics

Again, students asked for extensions to hand in their essays and project reports. Often a tragic family reason is raised. The concentration of those events in one course round is questionable. I usually give the deadline extension, since I cannot and do not want to prove their argument and I believe that the most important point is that the student does the learning activity in the end. Such decisions are difficult since also fairness between the students has to be maintained. Therefore, I still look to discuss such issues with other teachers.

Ideas and concrete actions for future course development

The following actions are suggested based on the experiences from the teacher team as well as the response from the students.

- Include more reflective questions (concept questions/quiz) during the lectures where students will be allowed to discuss about the answer before they respond to the teacher.
- More small examples and possibly in-class experiments/simulations should be looked for.

- In the tutorial consider that groups should explain their solution to each other.
- Create an online diagnostic test which should be answered in the beginning of the course and perhaps the same test again during the course to measure the understanding. This test could also check the understanding of the threshold concepts. Perhaps offer an extra tutorial to compensate for identified weaknesses.
- The achieved bonus points should be revealed to the students to the end of the lecture so that students remain motivated to participate until the end of the course. Therefore, the assessment result of the essays might be handed out late.
- Suggestion and experience from Efthymios: Randomize the bonus-point exercises and pick them out of the set of exercises to be solved in the session. We did so in the last tutorial, mainly because we thought one exercise was silly, and I can say the group work on the bonus point was interesting and intensive. All groups and their members were very active. It used to be the case that some people come with all exercises written down and when a bonus point comes up they simply copy-paste the solution. However, when we threw-in an unexpected exercise the whole concept was much more vigorous since everyone was in motion.
- Perhaps students who already solved the problems might be pushed to present their solution to their peers (and the TA).
- Teaching activity suggested by Efthmios and to be discussed: I would instead suggest out-of-the-class work, where people participate and debate. For example there could be a sub-forum where questions/real-world problems are posted and then the students make their suggestions or debate about a solution to an application-oriented problem (e.g. a detection/estimation problem). Each student should make at least one contribution to the discussion or argue in favor of/against someone else's point.

Ideas from last year which still might be interesting:

- It could be checked if one should call the 'acf' autocovariance function as done in the book Foundations in Digital Communications. This should be done in agreement with the other teachers in related courses.
- Ask for reflective journals during the lecture period to identify miss-conceptions. Possible implementation: Let the students reflect on the course so far – possibly a first one after the first 1/3 of the course and a second one due before the first project. They should discuss about the most important concepts and report about most difficult concepts. This provides feedback about troublesome knowledge and threshold concepts. First, I would suggest to make the journals voluntarily. To animate students to do them, I propose that a good reflection will be worth up to two extra points in the final exam (which usually will have around 50 points in total).
- To make the lectures more interactive, I propose to introduce short quizzes or "clicker" questions to check miss-conception directly in class. To generate more interaction, ask the same question two times before the correct answer is revealed. After the first round, the students see the voting, hear some arguments, or get some hints/explanation before they are supposed to discuss with their fellows before they are asked for an answer again. Further, I have good experience with "5-minute" exercises in class, where the students are supposed to directly apply the newly learned methods.

Overall evaluation

I believe that the course is on a very good level and very well appreciated. The course material is good and the bonus points are a good incentive to motivate the students. I am very happy with the structure of the tutorial so that only fine-tuning should be done in the next year. The lectures were made more interactive and more explanations and examples have been added, but there is still room for improvement. Further, I believe that improvement of the teaching can be achieved with a diagnostic test which should give the teacher and the students feedback about the different pre-knowledge .

Exam results

Signal Theory, EQ1220, Fall 2013
Introduction in Signal Theory, EQ1210, Fall 2013

Exam 2013-10-29

Number of students EQ1210: 3 students; 41 points were the maximum in part B; one achieved a C with 23 points, one achieved a E with 18 points, one failed with 13 points.

Number of students EQ1220: 43 students; 50 points were the maximum in part B; two students failed part A, one student did do part B at all.
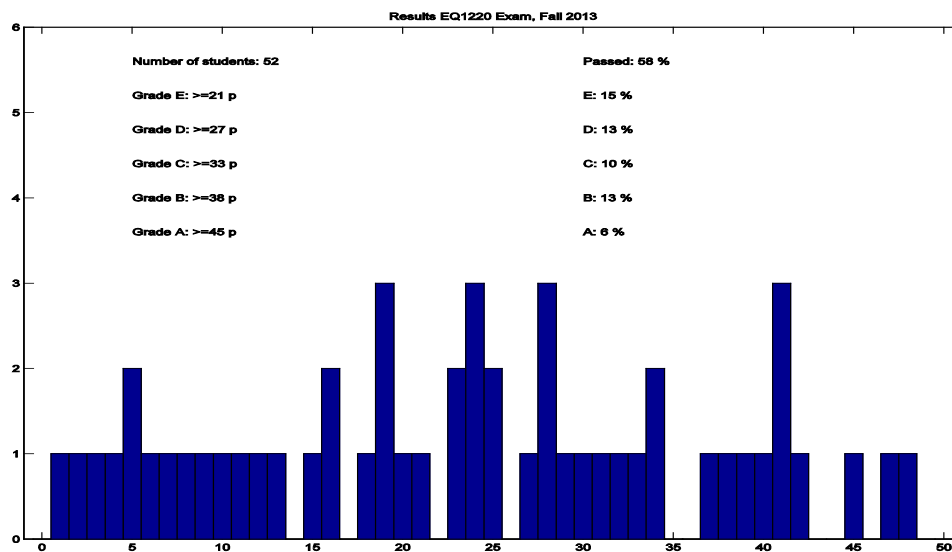
The exam was considered to be difficult; therefore the grading levels have been adjusted accordingly.

Distribution between problems:
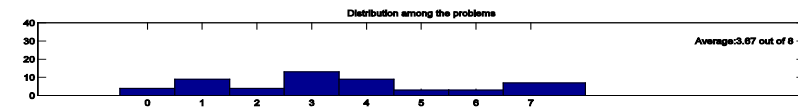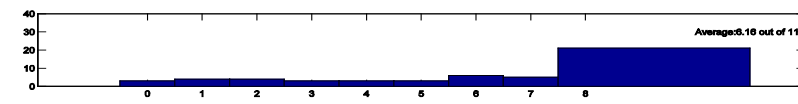
Problem 1:
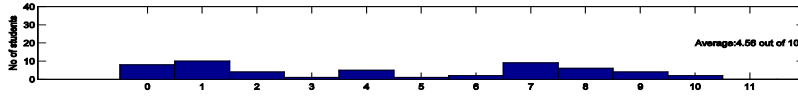
Problem 2:
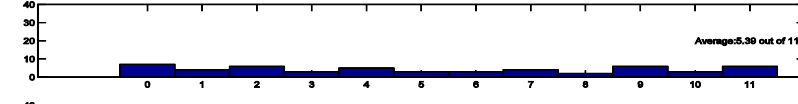
Problem 3:
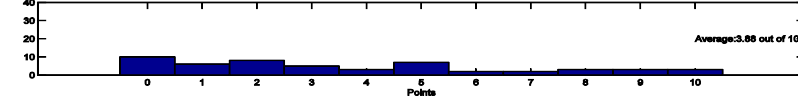
Problem 4:

Problem 5:

It seems that problem 2 was easy and problem 5 was more difficult.

Re-exam 2014-01-08

Number of students EQ1210: 1 student who achieved an E with 16 out of 43 points.

Number of students EQ1220: 17 students; 47 points were the maximum in part B; one student failed part A.
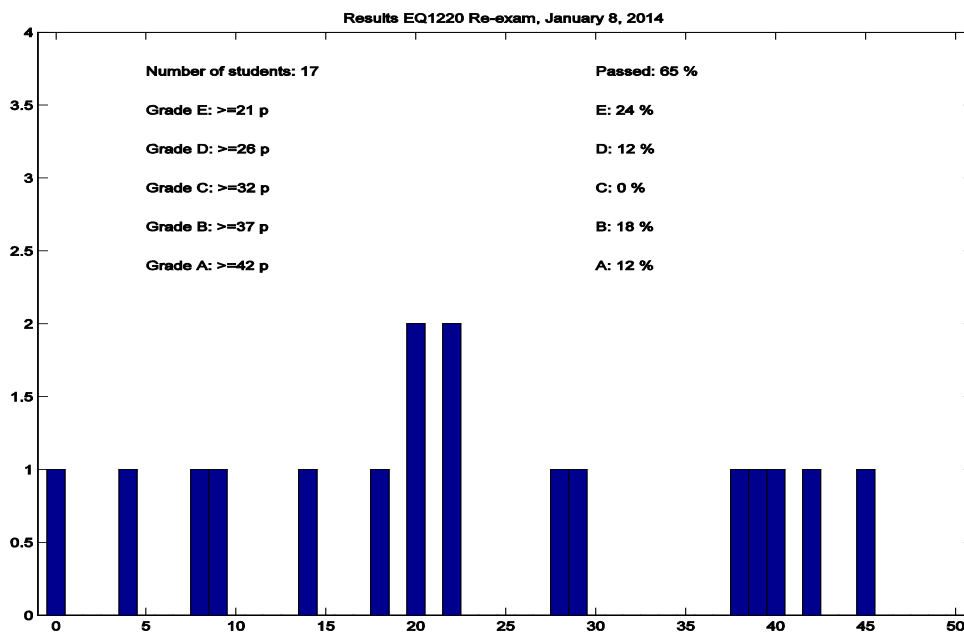
Distribution between problems:
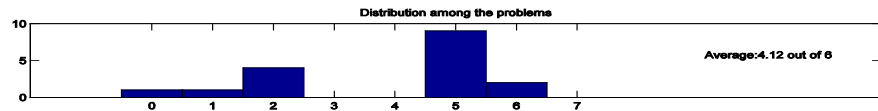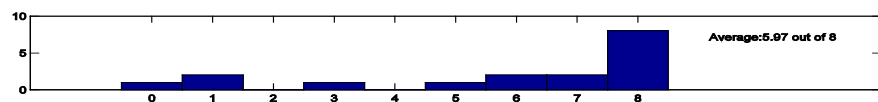
Problem 1:
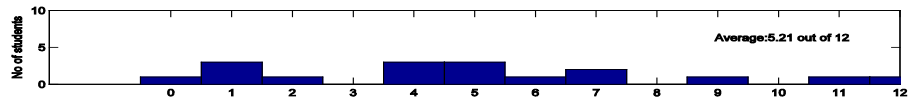
Problem 2:
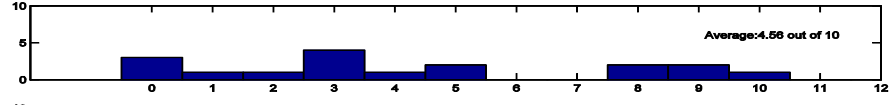
Problem 3:
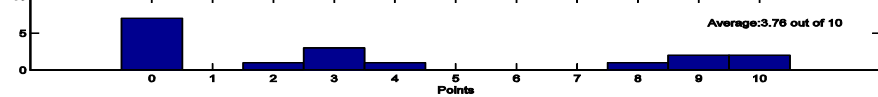
Problem 4:

Problem 5:

It seems that problem 2 was easy, problem 1, 4, and 5 of the type either one knows what to do or not. Problem 3 was designed such that students can answer even if they did not succeed in the beginning of the problem.

Course feedback

Signal Theory, EQ1220, EQ 1210, Fall 2013

Status: Avslutad
Publicerad under: 2013-10-08 - 2013-10-29
Antal svar: 55
Procent av deltagarna som svarat: ?%
Kontaktperson: Tobias Oechtering

1. Did the learning activities help you to reach the course goals (mostly learn new concepts and methods in signal theory)?

48 svarande

very much	13	27%
pretty much	28	58%
so and so	4	8%
only a little	2	4%
not at all	1	2%

- *Activities motivates me to participate in the course more.* (pretty much)
- *I probably haven"t reached the course goals but only because of my level of previous knowledge, especially in mathematics (which was very insufficient) and volume of the material that we should cover. In my country we don"t split the semester in two periods therefore we have more time for understanding the material. But the learning activities were good.* (pretty much)
- *Not the lectures though* (pretty much)

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2. Threshold concepts are core concepts that once understood, transform perception of a given subject. What threshold concept(s) did you learn in the course?

- *Deterministic and stochastic signals and their concepts*
- *Filtering*
- *Deterministic and stochastic signals and their concepts*
- *The autocorrelation functions and power spectra were the most important concepts in this course, I think.*
- *Stochastic processes, power spectrum, system analysis with stochastic processes, estimation of statistical parameters of a S.P.*
- *OK*
- *I"m not sure about the threshold concept. Every function has a limit.*
- *Stochastic processes, Estimation principles*
- *Stochastic processes, estimation.*
- *reconstruction, Theory about stochatic processes, PAM modulation*
- *Stochastic systems*
- *Filter,stochastic process,frequency domain*
- *I learned the theory about autocorrelation functions, PAM and estimation.*
- *Many concepts related to stochastic process are indeed important.*
- *What I learned as threshold concepts in the course are sampling and PAM, which I"d never studied in lecture.*
- *Processing and handling stochastic processes*
- *I did not learn.*
- *power spectrum*
- *I do not know*
- *Concept of random process, its parameters, properties, concept of stationarity and ergodicity. Models of the stochastic processes. Optimal filters and estimators (in different senses). Sampling and modulation.*
- *I learnt where the math that we use in other communication subjects comes from. It helped me understand the importance of random processes in communication theory*
- *Autocorrelation, optimal filtering*
- *Stochastic and Ergodic Processes. Filtering. Frequency Domain Analysis*
- *Pretty much, since I was major in Computer Science Undergraduate. Power Spectrum, Estimation, Filtering*
- *no*
- *Ergodicity*
- *Mainly concerning power spectrum and ACF*
- *autocorrelation, crosscorrelaiotn, power spectrum,*

- *Stochastic process*
- *Math required fr communication subjects*

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3. How useful in learning the concepts were the lectures?

48 svarande

useful	21		43%
partially useful	23		47%
useless	3		6%
did not attend	1		2%

- *Concepts are basic of this course. But I think there are too many derivation in the class.* (useful)
- *Detailed derivations were useful, especially where they needed "smart" zeros and ones.* (useful)
- *I think that it was sometimes useful, but my study technique lets me learn faster without going to lectures.* (partially useful)
- *Very good course book also* (partially useful)
- *Demonstrations sometimes too long.* (partially useful)
- *To improve this, the lecture slides should be made available in advance, and Tobias should practice his white board technique* (useless)

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4. How many lectures did you miss?

48 svarande

0 - 2	31		64%
3 - 5	10		20%
6 - 8	7		14%
9 - 12	0		0%

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5. Were the reflective questions useful for your preparation?

48 svarande

useful	26		54%
partially useful	21		43%
useless	1		2%
did not do	0		0%

- *Helped a lot to better understand the lectures* (useful)
- *Didnt make us feel completely stupid when coming to lectures. Make us feel prepared* (useful)
- *The reflective questions help me read more focus on the points* (useful)
- *Sometimes I have not enough time to finish the reflective questions.* (partially useful)

- *This is maybe to only way to check if the reading assignment was done. I don''t think they should be more difficult otherwise why should I come to the lecture. But they are not really reflective.* (useless)

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6. How useful in learning the methods were the tutorials?

47 svarande

useful	26	55%
partially useful	18	38%
useless	2	4%
did not attend	1	2%

- *Tutorial is good.* (useful)
- *Depends on the TA, but in general they were useful, of course.* (useful)
- *Due to clashes, missed some tutorials which had bonus points. So should have a provision for making it up in some other way as these other lectures were mandatory.* (useful)

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7. How many tutorials did you miss so far?

48 svarande

0 - 2	37	77%
3 - 5	6	12%
6 - 8	4	8%
9 - 12	1	2%

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8. What is your opinion how we can improve the tutorial session?

48 svarande

Stay unchanged since it works well.	33	68%
Unchanged style but individual work.	10	20%
Problems solved by the teaching assistant on the board only.	3	6%
No opinion.	2	4%

- *The teams arrangement sometimes was no very succesful, however we could manage to make it dynamic.* (Stay unchanged since it works well.)
- *To improve group work, one can think of keeping the groups the all period.* (Stay unchanged since it works well.)
- *Maybe there should be less derivation in the class because there are kind of boring. And more examples.* (Stay unchanged since it works well.)
- *Some of the TA use to discuss the problems before they give us time for group work. They*

give something like an algorithm on how to solve particular type of problems. It would be nice if all TA"s could do that. (Stay unchanged since it works well.)
- *I especially benefited from the group work during the tutorial sessions.* (Stay unchanged since it works well.)
- *Make 2 groups discuss with each other also. That way people actually work together. Because even within groups some people prefer to work alone. Making more people involved gives the others a choice.* (Stay unchanged since it works well.)
- *Maybe we can finish the problems before the tutorial individually or in group. In the tutorial, we just ask the TA some points we don"t understand.* (Unchanged style but individual work.)
- *More individual work might be better.* (Unchanged style but individual work.)
- *Giving more problems and solution in the tutorial session are preferred.* (Problems solved by the teaching assistant on the board only.)

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9. Do you feel that you got constructive feedback from the TAs on the project and during the tutorials?

47 svarande

very much	21	44%
pretty much	19	40%
so and so	5	10%
only a little	1	2%
not at all	1	2%

- *They have done a great job.* (very much)
- *Always available* (very much)
- *They were always willing to help* (pretty much)
- *Its a little difficult to know if your answer is correct or not, so it would be good if we can have atleast one scheduled appointment with the TA"s before the deadline to discuss our results and get feedback rather than submit the report and fail because the results were wrong.* (pretty much)
- *Good FB during the tutorials, a bit less on the projects.* (pretty much)
- *1st one was very nice but on the 2nd report the feedback was terrible.* (so and so)

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10. Do you feel that the projects required from you to learn or improve relevant skills (programming, report writing, etc.)?

48 svarande

very much	22	45%
pretty much	17	35%
so and so	4	8%
only a little	4	8%
not at all	1	2%

- *It improves my ability of writing.* (very much)
- *The projects are indeed good exercise for me.* (very much)
- *Latex* (very much)
- *It is more useful if we are asked to do more projects and lesser weightage is given on the final exam.* (very much)
- *I leaned Latex with the projects* (very much)
- *On the other hand, they don"t require a lot of work and I admit having done the minimum.* (only a little)
- *We"re writing reports in so many other courses that this felt redundant.* (not at all)

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11. Did the project assignments improve your understanding of the material?

47 svarande

very much	17		36%
pretty much	21		44%
so and so	7		14%
only a little	1		2%
not at all	1		2%

- *The projects help me have a deeper understanding of what I have learned through the lectures.* (very much)
- *A lot of concepts really made sense only after doing the projects. The first project was not very useful because they were just derivations but the second one was very useful* (very much)
- *Would have been good if there was more face to face tutoring available, for example by have a lab session in a computer room or something similar.* (pretty much)
- *The projects were OK but I think the topic of estimators had to be covered more deeply.* (so and so)
- *It was just a question of plugging in to matlab.* (not at all)

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12. How many hours of work did you spend in project 1?

48 svarande

<10h	8		16%
10-20h	22		45%
20-25h	10		20%
25-35h	5		10%
>35h	3		6%

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13. How many hours of work did you spend in project 2?

48 svarande

<10h	5	10%
10-20h	27	56%
20-30h	10	20%
>30h	4	8%
ongoing	2	4%
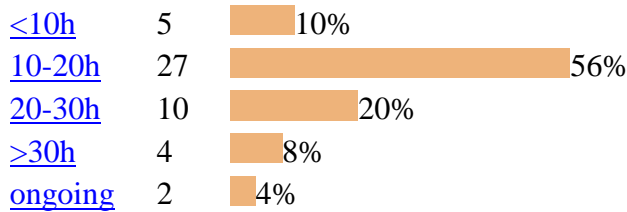
14. Did the bonus points increase your motivation to read and participate?

48 svarande

For both, lectures & tutorials.	39	81%
For lectures only.	6	12%
For tutorials only.	1	2%
Not at all	2	4%
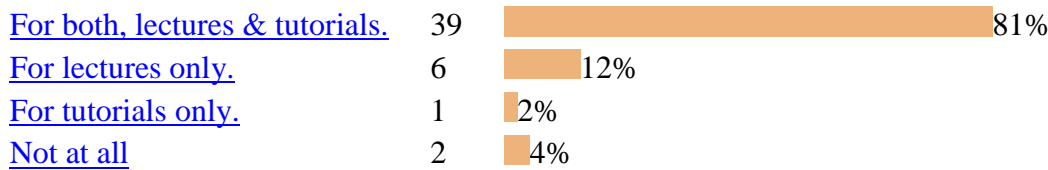
- *Bonus are useful.* *(For both, lectures & tutorials.)*
- *The bonus motivate us to spare more effort in the course.* *(For both, lectures & tutorials.)*
- *Very good to motivate students follow the course* *(For both, lectures & tutorials.)*
- *I like it. Keep it this way* *(For both, lectures & tutorials.)*
- *As I mentioned before, it would be better to make some provision to make it up for the missed sessions* *(For both, lectures & tutorials.)*
- *Very good idea to "force" us to go to the lectures (I would probably have missed more if there was no bonus points)* *(For both, lectures & tutorials.)*
- *There were conflicts which caused me to miss over half of the tutorials, which caused me to miss bonus points. I think the tutorials should be marked which ones give bonus points.* *(For lectures only.)*
- *The bonus motivate me to read the books and attends the lectures. But for the tutorials course, often conflicts with another course, so I cannot attend so much* *(For lectures only.)*
- *I will go to both of them whatever. In association with the examination system, this is a good idea.* *(Not at all)*

15. How would you rate the level of difficulty of the course?

48 svarande

too easy	1	2%
ok	30	62%
tough	15	31%
too tough	2	4%
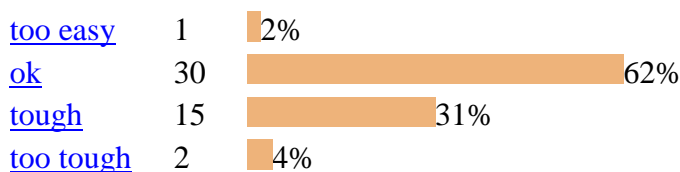
16. What was good and should not be changed?

- *Bonus points concepts*
- *Bonus system*
- *Rq*

- *Bonus points*
- *I think the groups in the tutorials are good.*
- *Everythink OK. I liked the class.*
- *All OK*
- *The part of bonus point and the project.*
- *Teacher is good*
- *The lecture is Ok*
- *Solutions of the exercises given. Comprehensive syllabus*
- *Bonus points system*
- *The projects are provide good opportunities to improve writing skills and have deep understanding of the theory and concepts.*
- *Getting 5 minutes during the lectures to prove simple theorems is very good!*
- *Reading assignments are indeed helpful.*
- *I like the style of tutorial sections in this course very much.*
- *Bonus point system*
- *tutorials.*
- *tutorials.*
- *tutorial style*
- *I think the text book are not very well organized and there are few examples in textbook.*
- *Tutorials*
- *Lectures should not be changed.*
- *Bonus points. Reading assignments. Keeps us motivated*
- *Projects is a good way to put the theory into practice. So it"s perfect.*
- *The reflective questions, tutorials, and the bonus*
- *tutorials*
- *lecture assignments*
- *Bonus points*

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17. How can the course be improved?

- *The course can be made a bit faster*
- *Tutorial sessions : individual work*
- *The course can be made a bit faster*
- *Mark which tutorials give bonus points. Conflicts in schedules and many assignments in other courses make it unfeasible to write solutions to all problems nicely and send it in for all tutorials.*
- *Some topics as estimators could be covered more deeply or perhaps with more emphasis. Some concepts require more graphical aids to be easier to understand.*
- *Keep the good work*
- *I think we should finish the problems before the tutorial individually or in group. In the tutorial, we just ask the TA some points we don"t understand. In this way, we can discuss more problems in the tutorial and have a deep understanding of how to use what we learned in lecture to solve practical problems.*
- *Work in the course material a little bit more. More practical examples*
- *The organization of the tutorial"s teams.*
- *A little bit more advanced materials, more challenging problems, more reflection required.*
- *Ok so*
- *Maybe more examples and application in engineering.*
- *Tutorials can be more compact.*

- *I"m not sure very well since my area is not so close to "Signal Theory" and this was my first time to study this kind of topic. However, I have to say there is no point to be improved.*
- *There were too many classes per week. It is very tough to cop up with the pace of the lectures. So, it would be helpful if the duration of the course can be increased.*
- *There were too many classes per week. It is very difficult to cop up with the pace of the lectures. The duration of the course should be increased.*
- *change the project work*
- *Sometimes we feel the theoretical knowledge could be understood but we don"t know how to use it and apply it into solving the practical problem. I think the theory, to some extent, is divorced from practice. I suggest give more examples in lectures.*
- *Mindre härledningar och mer förklaringa på föreläsningarna*
- *more projects. grade for the projects instead of just pass/fail.*
- *It"s a little too much work. Maybe if you say if you submit 3/5 reading assignments and 3/5 tutorials, it would be okay. Otherwise too much pressure.*
- *give some materials to the student who do not learn EE before help them catch up quickly*
- *Inte lika mycke härledningar*
- *Maybe less lectures and more tutorials with some points of lectures included inside?*
- *do not know*
- *more tutrials*

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18. Did the course schedule conflict with other courses (simultaneous classes, etc)?

48 svarande

Yes	24	50%
No	24	50%

- *io2651* (Yes)
- *Management of project and swedish a1 on tuesdays* (Yes)
- *Theory and Methodology of Science clashed every week, often two or more times per week. I missed more than half of the tutorials due to this. Modelling of dynamical systems also clashed every week.* (Yes)
- *Two times with EH2720: Management of Projects* (Yes)
- *optics IO2651, every week several hours* (Yes)
- *Two lectures. With EL2310 Scientific Programming* (Yes)
- *Only several conflicts with the course Embedded System, but not too much.* (Yes)
- *With a Swedish class... but not very often* (Yes)
- *This is the most unexpected problem of the course. It is very difficult to understand the concepts and materials of the course when class has been misses.* (Yes)
- *The EIT ICT Labs Master school has some other courses like for DMT track two other courses Entrepreneurship for Engineers (ME2072) and Introduction to Visualization and Computer Graphics (DH2320). The class schedule of these two courses cnflicted with the Signal Theory course.* (Yes)
- *Some times* (Yes)
- *Only once.* (Yes)
- *I had clashes like 3 courses at the same time. The courses are ME2072 and DH2320.* (Yes)
- *For me, the course often conflicts with Entrepreneurship for Enginners almost 1/week, and has conflicts with DH2320 Computer Graphics about 2 or 3 times* (Yes)

- *With Power System Analysis, part 1* (Yes)
- *some lectures* (Yes)
- *A handfull of times, with the course in project management.* (Yes)
- *3 times in the period but it was OK* (Yes)
- *Swedish and project management* (Yes)
- *mostly that I hade courses in Flemingsbesg and hade to travel qfrome here to there or vise versa* (Yes)

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19. Did you do this questionaire since you want to get the link "www.ee.kth.se/~oech/examinfo.pdf"?

48 svarande

Yes, because of that only.	14	29%
Yes, but I would have provided feedback anyway.	27	56%
No	7	14%

- *I think feedback is the best way to reflect about what you liked about the course and actually think about what you didnt like and why you didnt like.* (No)

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20. For which course are you registered?

48 svarande

EQ1220	45	93%
EQ1210	3	6%
EQ1240	0	0%
EQ1260	0	0%
other	0	0%

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21. Please feel free to add any other comment:

- *It was a nice course. Thanks to professor Tobias and all the team.*
- *Thanks*
- *Thanks*
- *Thank you*
- *I really like the course*
- *This course has made me feel that I need to study more about everything related to signal theory. Thank you very much.*
- *no. Thanks.*
- *No comment*
- *But great course all in all. But would really appreciate if we didnt have this many classes at 8 in the morning. But no complaints, just a suggestion. But great introductory course.*