



Report - IK2206 - 2019-04-10

Respondents: 1
Answer Count: 1
Answer Frequency: 100.00 %

Please note that there is only one respondent to this form: the person that performs the course analysis.

Course analysis carried out by (name, e-mail):

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COURSE DESIGN

Briefly describe the course design (learning activities, examinations) and any changes that have been implemented since the last course offering.

The learning activities consist of: twelve lectures; four online homework assignments; two lab assignments; and a project assignment. The examination has three parts: written exam (TEN1, 4.5 hp); home and lab assignments (UPG1, 1.5 hp); and project assignment (SEM1, 1.5 hp).

One major change was made during the year: the VPN project was redesigned. It was previously organised as a C programming project, where students make their own implementations of SSL/TLS functionality. For 2018, this was changed to a Java programming project with focus on secure TCP port forwarding. This change was a result of conclusions drawn during last year's course analysis.

THE STUDENT'S WORKLOAD

Does the students' workload correspond to the expected level (40 hours/1.5 credits)? If there is a significant deviation from the expected, what can be the reason?

Similar to last year, the overall level of workload seems appropriate, based on the LEQ survey and discussions with the course committee. Some students felt that the workload increased during the later part of the course, when the project assignment was performed.

THE STUDENTS' RESULTS

How well have the students succeeded on the course? If there are significant differences compared to previous course offerings, what can be the reason?

The statistics for the 2018 version of the course is based on the output from Ladok for the regular course round. This is new for this year, and the results may not be directly comparable for previous years. In total 114 students have attempted at least one of the three course components. Of those 114 students, 71 passed the course with grade E or higher (this corresponds to a 62.3% success ratio). The results for the individual course components are: UPGA 93.3% (104 of 97), PROA 88.9% (88 of 99), and TENA 78.3% (72 of 92).

The students that passed the exam also passed the course (with one exception): 92 of 114 students attempted the exam, and 72 of those 92 passed the exam, hence the overall success ratio becomes 62.3%. The passing ratio for the exam is acceptable and considered normal, while the overall ratio for the course is somewhat low.



OVERALL IMPRESSION OF THE LEARNING ENVIRONMENT

What is your overall impression of the learning environment in the polar diagrams, for example in terms of the students' experience of meaningfulness, comprehensibility and manageability? If there are significant differences between different groups of students, what can be the reason?

The general impression is that the course is well-functioning and the overall rating by the students is very good. The scores are in general very high (5 – 7 range) when it comes to understanding and constructive alignment. The areas that received lower rates (in the 4 – 5 range) are related to feedback without grading, and room for students' own choices. This is intentional and in line with the course design, which consists of several assignments with strict deadlines, intended to steer students towards starting the course studies early and to distribute course work throughout the course.

ANALYSIS OF THE LEARNING ENVIRONMENT

Can you identify some stronger or weaker areas of the learning environment in the polar diagram - or in the response to each statement - respectively? Do they have an explanation?

The following questions received lower score:

"3. I was able to learn by trying out my own ideas", "4. explored parts of the subject on my own", "15. I could practice and receive feedback without being graded", and "20. I had opportunities to influence the course activities".

A possible explanation for this is that the course has a highly regulated structure with many compulsory components. Hence, it is logical that the scores are lower on these parts - this directly reflects the intentions with how the course is designed.

"5. I felt togetherness with others on the course" - All course work is individual, and the course is taken by students from many different program both at BSc and MSc levels, so this result could be expected. It should be noted though that the next question ("6. The atmosphere on the course was open and inclusive") received high marks, so the course itself seems to be perceived as welcoming and open.

ANSWERS TO OPEN QUESTIONS

What emerges in the students' answers to the open questions? Is there any good advice to future course participants that you want to pass on?

Students seem to both appreciate and adapt to the course design, which is intended to activate students early on. The students' advice for future participants confirms that the course design is effective: "be active and start working early with the course".

Some students bring up lack of experiences with Java and that they have difficulties accommodating to the course programming environment. This seems to be less of a problem compared to previous years, though, when the project was in C.

PRIORITY COURSE DEVELOPMENT

What aspects of the course should primarily be developed? How could these aspects be developed in the short or long term?

- Add small programming assignment earlier to develop utility Java classes that are needed in the project, for instance java classes for command line parsing and string processing.
- Add unit tests for project assignment so student can do more testing on their own.
- Add a grading pre-run of project submissions a few days before final deadline.
- Update lab instructions, in particular for iptables lab.
- Add introduction to security programming in Java, perhaps as a workshop.
- Review cryptography part to ensure that textbook and lectures are consistent (RSA etc.).

From previous years:

- GPG lab - more informative error messages for students submitting ill-formatted emails
- Guest lecturer - guest lecturer to give industrial perspective on network security

Course data 2019-04-30

IK2206 - Internet Security and Privacy, HT 2018

Course facts

Course start:	2018 w.44
Course end:	2019 w.3
Credits:	7,5
Examination:	PROA - Project, 1.5, Grading scale: P, F TENA - Examination, 4.5, Grading scale: A, B, C, D, E, FX, F UPGA - Assignment, 1.5, Grading scale: P, F
Grading scale:	A, B, C, D, E, FX, F

Staff

Examiner:	Peter Sjödin <psj@kth.se>
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Assistants:	Huseyin Kayahan <kayahan@kth.se>

Number of students on the course offering

Registered	0
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Achievements (only registered students)

Pass rate ¹ [%]	<i>There are no course results reported</i>
Performance rate ² [%]	<i>There are no course results reported</i>
Grade distribution ³ [%, number]	<i>There are no course results reported</i>

1 Percentage approved students

2 Percentage achieved credits

3 Distribution of grades among the approved students