

# Course Analysis AK2030, Period 3 2023

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## DESCRIPTION OF THE COURSE EVALUATION PROCESS

**Describe the course evaluation process. Describe how all students have been given the possibility to give their opinions on the course. Describe how aspects regarding gender, and disabled students are investigated.**

Students have been asked to fill out the LEQ through the central KTH system. This also investigates aspects regarding gender and disabilities. A LEQ template was used. The report covers answers from 15 respondents out of 110 students.

## DESCRIPTION OF MEETINGS WITH STUDENTS

**Describe which meetings that has been arranged with students during the course and after its completion.**

A course evaluation meeting for period 3 2023 has been held to which program- and student representatives were invited. No student or program representatives were present on the meeting however. The meeting was a joint meeting with courses much similar to AK2030. Much of the information in this report is based on said course evaluation meeting.

## COURSE DESIGN

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

AK2030 features nine pre-recorded video lectures, two campus lectures, and four campus seminars designed to cover the main areas of the course. Course examination consists of a 4 hour digital open-book exam in 3 parts designed for assessing different competencies specified in the course curriculum.

## THE STUDENTS' WORKLOAD

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

Nothing to remark on other than respondents reporting working less than expected. There are multiple possible explanations for this and because of little free text comments and a relatively small survey sample, it is difficult to draw conclusions. In contrast, some students report spending much time on lecture and seminar quizzes.

## 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 course has seen a noteworthy increase in number of students taking the exam in 2023 compared to period 3 in 2022 and shows a slightly higher but similar pass percentage, and a higher percentage of students taking the exam with passing grades B and A in 2023 (see grade percentages for period 3, 2023 below).

AK2030

A 9%

B	18%
C	10%
D	33%
E	18%
F	5%
Fx	6%

## **STUDENTS' ANSWERS TO OPEN QUESTIONS**

### **What does students say in response to the open questions?**

Opinions are mixed with some respondents expressing overall enthusiasm about the course, and others expressing overall negative feedback.

Seminars receive credit for being inclusive and a helpful learning activity. Video lectures are appreciated on the basis of being available online at any time, for being high quality recordings, and for featuring a lecture quiz feedback function. The pass requirements for lecture quizzes (non-mandatory activity which can reward bonus points for exam) are found to be too strict and time consuming by some.

Among free text answers, there are expressions of opinions that the course literature and course contents are challenging to read and absorb, that the course is experienced as not immediately relevant to one's overall studies. Appreciation for the open-book exam format is expressed, whereas negative comments on unfairness with respect to the tripartite exam structure, where part III is only required for grades B and A, and is not graded unless the student has obtained the grade C on part I and II.

Respondents advise future students to plan ahead, do lecture quizzes on a continuous basis, complete bonus point activities, and to follow the suggested course activity schedule.

## **SUMMARY OF STUDENTS' OPINIONS**

### **Summarize the outcome of the questionnaire, as well as opinions emerging at meetings with students.**

Respondents gave relatively low scores on LEQ statements relating to intended learning outcomes being a helpful guide to understand expectations on students, relating to independent subject exploration, and to the course being found stimulating and challenging in positive ways. The LEQ statement "I worked on interesting issues" received a higher average score. International students reported an overall lower score than national students. LEQ statements regarding priority of understanding key concepts, possibility of receiving support, being able to learn and receive feedback without being graded, as well as being able to learn by collaborating and discussing with others received comparatively high scores.

The ratings on the LEQ statements varied from 2.7 to 5.8.

## **OVERALL IMPRESSION**

### **Summarize the teachers' overall impressions of the course offering in relation to students' results and their evaluation of the course, as well as in relation to the changes implemented since last course offering.**

Aside from already mentioned low LEQ scores, teachers note no particular or significant deviations from prior course evaluations.

## **ANALYSIS**

Teachers noted that students gave low scores on the intended learning outcomes being a guide to understand expectations on students. This has been seen before and an attempt during period 3 to actively encourage students to read the learning outcomes on multiple occasions seemingly has not affected this.

**Is it possible to identify stronger and weaker areas in the learning environment based on the information you have gathered during the evaluation and analysis process? What can the reason be?**

Stronger learning environment areas include seminars which students report appreciation of for separate reasons; interpreted as inclusive and collaborative learning with fellow students, higher learning retention, opportunity to interact with teacher and receive feedback and support. Additionally, students report appreciation of video lectures for several reasons; interpreted as accessibility, quality of lectures in terms of contents, examples and visuals, and combination of lecture and related learning quiz and feedback activities.

Weaknesses with respect to learning environment areas include experiencing course concepts abstract and convoluted, as well as removed from applied engineering science. A possible reason for both lines of feedback may lie partially in the nature of the subject, with Philosophy involving field specific concepts and methods which may be partially or entirely unknown to students beforehand. Although the course materials present multiple examples to illustrate use cases and use areas to students, given the overall emphasis on general “justification of scientific/engineering method choices” is not specific to any given branch of science, it may be expected that students might not find it immediately straightforward how to relate the course contents to their specific program curriculums.

**Are there significant differences in experience between...**

**- students identifying as female/male?**

No breakdown.

**- international/national students?**

Generally, international students show a less favourable view of the course than national students.

**- students with/without disabilities?**

No breakdown.

## **PRIORITIZED COURSE DEVELOPMENT**

**What aspects of the course should be developed primarily? How can these aspects be developed in short and long term?**

- Examination and grading formats will be put under review and development (*short- and long-term development*).
- Lecture- and seminar quizzes will continue to be improved by adding clarifications, examples and quiz question feedback (*short- and long-term development*).
- Video lecture transcripts may be included as video captions (*long-term development*).
- The main course text will be updated to add clarity, conciseness and illustrative examples, and improve overall readability (text stems from lecture transcripts) (*short- and long-term development*).
- Introduction of semi-supervised voluntary group exercise sessions will be planned for some upcoming trial period in which students can work together to promote mutual understanding of the course materials without being graded (*short-term development*).

- Reworking Canvas course rooms to improve overall navigation by e.g. removing duplicate information, and condensing overall information, and increasing assignment accessibility (*short-term development*).

## **OTHER INFORMATION**

None.