

## Report - HM1025 - 2020-04-10

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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#### **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.

The course evaluation process was continuous throughout the course, using:

- Discussions with the students and the project groups continuously during the course.
- An Individual Assignment via CANVAS: at the end of the course, focusing on discussing and reflecting on different themes related to the
- KTH LEQs Course Evaluation Questionnaire on the final seminar day.

The examiner, in consultation with the KTH Disability Coordinator (Funka), decided on any adapted examination for students with documented permanent impairment, e.g. prolonged exam writing time and location. The examiner may grant another examination form for reexamination of single students.

#### **DESCRIPTION OF MEETINGS WITH STUDENTS**

Describe which meetings that has been arranged with students during the course and after its completion. (The outcomes of these meetings should be reported under 7, below.)

- Discussions with the students and the project groups continuously during the course, e.g. in connection to the supervision meetings, as well as with students when meeting them, e.g. during breaks.

  - In addition, an optional feedback meeting after the course ended was offered to all, and arranged with some, groups.



#### **COURSE DESIGN**

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

The course includes different types of learning activities. These are mainly:

- Lectures that give an overview of the subject with theories, facts and applied examples. These include: physical, system, and cognitive ergonomics; man, anthropometry, biomechanics, visual ergonomics, personal injury risks, methods in ergonomics studies, limit values and recommendations. ergonomics and economics and the product development process.
- Three laboratory work sessions where the focus is on learning how to apply a selection of ergonomics methods.
- A project where the objective is to shape and carry out a project to improve ergonomics, develop a prototype and evaluate it with the help of users. The project includes collaboration as well as independent work and the students give and receive feedback to / from other students.

The examination is carried out in three different steps:

- Written exam (TENA; 2 credits)
- Passed project (PROA; 3 credits), oral and written presentation
- Labs, work-shops, seminars, assignments (ÖVNA1; 1.5 credits)

Changes from the last round (presented during the first lecture) were that:

- The UN's sustainability goals are being addressed more than in previous course rounds
- The grading has changed
- The students are offered to participate in a research study on learning
- No student was willing to stand as a student representative.

#### THE STUDENTS' WORKLOAD

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

The LEQ shows that in average the students worked 12 hours/week with the course. This is rather low, especially since the students during the course communicated that they put a lot of work into the course. One reason could possibly be that they have a demanding project course in parallel with this course.

#### 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?

All 32 students who followed the course managed to pass the three different examinations (TEN A, PRO A and ÖVN A) during the course and acquired the following final grades: A (3 students), B (7 students), C (18 students) and D (4 students). It has been rather unusual that all students pass the course during the first round of examination. In addition, in comparison with last year, when no student got an "A" as final grade, the students were somewhat, but not significantly, more successful this year.

### STUDENTS'ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

Several students expressed was that they experienced the climate throughout the course to be positive, friendly and supportive and that they appreciated the involved teachers engagement. In addition several students stated the project as the highlight of the course, also with a clear user-perspective. Also the courses structure, clarity, course material were mentioned in positive ways. Regarding possible improvements, several students expressed that they would have liked to have longer time for the project, e.g. with the course running over two periods instead of one. Advice to future students includes to get in contact with several companies as soon as possible, and with the intended occupational group they (the students) choose rapidly and plan for "enough" time for the evaluation with intended end-users.

### **SUMMARY OF STUDENTS' OPINIONS**

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

The students are generally very positive to the course, that it is interesting, fun and very good. Several of the also express that they appreciate that the course design with more lecturing in the beginning, and more of the project thereafter, and the labs to lean some methods, as well as the different types of learning activities. Several express that they learned a lot, especially in the project, where they had to develop a "solution" on an ergonomics problem for an occupational group, and evaluate a prototype of the solution with real intended end-users. However, several students this year, as well as previous years, expressed that they found it stressful to manage the project and the rest of the course in "P2" in parallel to another project course, and suggested that this course should be given during P1 and P2, e.g. at ½ pace.



#### **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.

Short version summary: "Good".

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 for these be? Are there significant difference in experience between:

- students identifying as female and male?
   international and national students?
- students with or without disabilities?

All questions in the LEQ were answered with scores in average 6.0 or higher on a seven-grade scale, except regarding the statement about fair grading, which was assessed as 5.1 (this may be due to that the grading was not done when the LEQ was answered). Thus, no weaker areas are displayed in diagram "Average response to LEQ statements - all respondents" in the LEQ questionnaire as the results report shows. Analysing the results I have not identified any significant differences in experience between students identifying as female or male, not between international and national students, nor between students with or without disabilities. However, students expressed that they appreciated arrangements to consider disabilities, and that they identified no gender issues at all.

#### PRIORITIZED COURSE DEVELOPMENT

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

One re-occurring suggestion from a quite large amount of students is to prolong the course time, so that it is given in P1 and P2.

#### OTHER INFORMATION

Is there anything else you would like to add?

It is fun to work with this course! One reason is the interesting discussions throughout the course as well as the supervision meetings, another the joy to follow the students development in acquiring skills in the topics which are in focus in the course, including ergonomics, and evaluation with real users and reflecting on ergonomics in product development.