

# Report - ML1333 - 2021-09-22

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.

LEQ 6 question course survey was conducted between 2021-09-08 - 2021-09-21 with only 1/31 respondents. No report produced.

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.)
Weekly course meetings with students in course laboratories.



### **COURSE DESIGN**

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

A full time course whose purpose is to demonstrate for the students' learning in large scale product development of an integrated technical system (a concept of a transportation line built of robotic handling cells has been developed during VT2020).

The project task was designed to be large enough so that each student project team could only work on a specified module of the technical system where they were required to design and develop their cell interfaces and cell function in collaboration with the project team before and after their position in the transportation line.

Course contents included; Advanced 3D Printing, Advanced computer aided design (OnShape), Module design, technical presentations (Assertion Evidence Approach), technical project management, programmable technical systems (LEGO Mindstorms), and personal / team character assessment.

PROA = The project was executed in four phases with five group seminars for each of the milestones in the project. At each milestone, every project group made a technical presentation to explain the progress they had reached during the previous phase.

REDA = Three project tasks (technical poster, technical report and project final technical presentation) and three individual tasks (reflection presentations on Belbin Team Roles, CliftonStrengths and Kolb Learning Styles) were executed for this course block.

#### 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?

Nο

Many students took advantage of the course by not using the 40 work week. I would guess the workload was an average of 25-30 hours a week.

### 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?

96.7% completion

### STUDENTS'ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

No published survey.

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

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

No published survey.



### **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.

Designing with LEGO does contain its own challanges.

Several students did not carry their loads in the projects and their team members got rather angry with them. Several conflicts.

### **ANALYSIS**

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?

LEGO Designer or similar LEGO modeling tool should not be used by students in the course project. They need to model and document their robots using the time they have

available in the course. Creo Parametric and Windchill should be used, not OnShape.

# PRIORITIZED COURSE DEVELOPMENT

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

Emphasize the learning outcome "identifiera och tillämpa olika förhållningssätt och ställningstaganden med avseende på etnicitet, mångfald, etik, och kön".