



## FACULTY OF SCIENCE

Department of Physics  
Division of Nuclear Physics  
Dr. Luis Sarmiento

### Course Evaluation FYSC12, HT20

At the beginning of the HT20 lecture series, the need for course representatives was pointed out by the lecturer, and early on two student course representatives were elected (Jessica Kocher and Magnus Andersson). Towards the end of the course, an evaluation sheet was agreed upon, very similar in scope to the one developed for VT20 except that now Canvas has been included in the evaluation and two new question called “External Factors” were added to account for stress and COVID-19. It was possible to prepare and submit course evaluation sheets both in person (30/10, 14:00, once all oral examinations were conducted), via Canvas as an anonymous survey, and a third option, e-mail to the course representatives. The fact that handing in course evaluations is in principle mandatory was mentioned during lectures and by e-mail to all students, with the evaluation form attached linked to the Canvas message as well.

All student replies are attached. The course representatives prepared a brief summary from the student perspective (see attachment, part 1). The material is circulated amongst all teachers, i.e. lecturers and laboratory assistants, to take more specific notes on their parts of the course. It should be noted that the student representative summarizes 12 forms representing 20 students.

### Comments

In a participation record, 16 out of 20 registered FYSC12 (and ÄFYD04) students (80%) participated in the course evaluation. The number of student evaluations should be even higher but clearly the Canvas option was attractive to the students since 14 out of those 16 entries (87.5%) were submitted via Canvas. At this point is impossible to separate the Canvas appeal based on the convenience of the option itself or as the COVID-19 safe way to conduct this. As already mentioned before, Canvas is not the best tool for this in term of anonymity as quoted bellow.

*"The anonymous option can be enabled or disabled before or after a survey has received submissions, allowing a user with sufficient permissions to see a student's identity and responses. To collect fully anonymous survey responses, you may want to use a third-party survey tool."<sup>1</sup>*

Despite this, an attempt has been made. However, we found the anonymity in Canvas to be just fine but due to a lack of an “export answers” feature we had to resort to

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<sup>1</sup> <https://community.canvaslms.com/docs/DOC-13126-415268346>

“Print answers to PDF” in order to make them available for the student representatives. The Canvas support team was not really supportive but at least they pointed out that the Sunet Survey tool is the way to go.

The overall picture is very much compatible with the evaluation conducted HT18 and HT19, with a grand average of a score of about 4 on an evaluation scale 1 to 5, i.e. we teachers are once again happy to see that all in all the course as such is apparently appreciated by the students.

### **Lectures & Hand Outs**

Very much in line with previous replies, given that there is a planned major revision of the bachelor programmes at the science faculty, an update of course contents (and alignment with a similar introductory course at LTH) is due in the coming year. This involves an update of the course plan, which will take care of the usual points mentioned in the evaluation. In terms of contents, a more relevant (in Lund) “ESS-neutron” complex is likely to also formally replace the “nuclear reactor” part. A better fission reactors lecture by LGS followed by a “research information” guest lecture by YH, an expert in fission reactors, are responsible for the now well scored perception of “Fission Reactors”. In the to-be-updated course plan, the weight of societal relevance of nuclear physics are to be increased, this is reflected in the low-score for the “Nuclear structure models” as this is highlighted a bit less than favour in favour of application of nuclear physics and a new lecture on radiation-matter interaction.

### **Problem Sheets / Sessions**

In general, the students were satisfied with the amount of Problem Sheets and Problem Sessions. They are however unhappy with the timing of them and more importantly with the fact that they are “only” used to qualify for the oral exam and do not contribute to the grade. In line with those remarks a new grading system where the Problem Sheet are folder in the final mark is envisaged for the new Course.

### **Laboratories**

The laboratories are in general appreciated by students. Consistently with previous reports, the alpha lab it is known to get lower scores compared with the other ones and it is in the priority list for modernization. Due to the inability to conduct full day labs due to the COVID-19 pandemic, a flipped classroom approach was implemented in conjunction with Kristina Stenström FAFF10 since we were able to find a common approach to all the undergraduate labs related to Nuclear Physics. The flipped classroom approach was, in general, well receive by the students.

### **Canvas**

Canvas was used more and more this time around. Signing up for laboratories and even the oral exams was carried out directly via Canvas with satisfactory results.

### **Course Evaluation**

As mentioned before, we had a record participation of 80%. But at this moment it is impossible to know whether the student participated via Canvas of its convenience as an online method or as the COVID-19 responsible option.

### **Examination**

While the style may or may not be very different, we do look at statistics, both in terms of the examiners and, for instance, gender related. Neither for FYSC12 VT20 nor in previous years we were able to identify any bias in one or the other direction.

Some students claim that 45 minutes is not enough to properly reflect their knowledge but we argue that this would not be different for a written exam.

### **Learning Outcomes**

The future course plan (and title of the FYSC12 course) will reflect that shift as well. Concerning experiment planning, this may relate to the level of preparation *prior* to the laboratories. Current research is explicitly mentioned during research lectures, which another student group highly appreciates, as well as indicated in a number of the more standard lectures. A more explicit connection with different lines in nuclear physics and related content will be done.

### **External Factors**

The students mentioned that the laboratory weeks can become stressful due to the multiple other activities overlapped at that time.

Regarding COVID-19, the slides and the audio were shared via zoom to allow for the possibility to attend the class online additionally to coming to campus. At first this option was well received but in the end the students stated that without a camera following the lecturer and the whiteboards following the lecture via zoom with only slides and audio it was “pretty impossible”.

For the next occasion where an alternative to campus teaching wants to be given this should be considered and the resources allocated for this.