Course Evaluation for Subatomic Physics SH2103, Autumn 2017.

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Self Reflection - Jonas Strandberg

After having spent two years at CERN, when Bengt Lund-Jensen took over the teaching of the particle physics part of the course, I resumed the course responsibilities for SH2103 in 2017. I only arrived back in Sweden shortly before the start of the course, which gave me extremely short time to prepare. Some challenges were the new system for web pages (Canvas) that had been introduced while I was away and where I had to quickly get up to speed and try to implement a new course web page.

New for this year was that we scheduled an additional session just before the Christmas break (after the last lecture but before the exam in the beginning of January) where we reviewed the content of the course and discussed how to solve typical problems that could come on the exam. All students did not show up for this session (it was voluntary after all)

Comments from the students

One student commented that there could be more calculations done in the course. I personally agree with this comment, I believe there should be a slightly larger focus on actually performing calculations and not just discussing things phenomenologically. This is not to say that the understanding is not the most important thing, but doing calculations can lead to a heightened understanding if done correctly. It would also make it easier to construct relevant problems for the exam.

The book rates ok, but there are many comments that it is hard to find things in it since it is written in a bit historical (as opposed to topical) perspective. There is also a comment, which I agree with, that the book has a large focus on topics such as isospin and hyper charge that are not discussed as much in class (since I believe they are not that fundamental or important, even if they played a large role historically). The lecture and labs are generally felt to be very good, and many students find the labs to greatly aid in their learning. The particle physics lab though is felt to be in need of some modernisation, a very accurate observation from the students.

Outlook for the next year

One thing I would try to change next year is to introduce more topics in a mathematical way and increase the occasions in the course when calculations are done (according to the comment from the student discussed above). I would have to go through the material and find the right place to make this change, hopefully there will be time next year to develop the course in this direction.

The course book is not ideal in my perspective, but it is hard to find another book that has the dual description of nuclear and particle physics.

Appendix - Course evaluation form

What is your opinion about the course literature concerning the nuclear physics part? Does it reflect what is taught during class?
[ ] Very good
[ ] Good
[ ] OK
[ ] Less good
[ ] Bad
Comments and suggested improvements:

What is your opinion about the course literature concerning the particle physics part? Does it reflect what is taught during class?
[ ] Very good
[ ] Good
[ ] OK
[ ] Less good
[ ] Bad
Comments and suggested improvements:

What is your opinion about the lectures in the nuclear physics part? (Inspiring? Covers the topic? Makes the topic understandable?)
[ ] Very good
[ ] Good
[ ] OK
[ ] Less good
Comments and suggested improvements:

What is your opinion about the lectures in the particle physics part? (Inspiring? Covers the topic? Makes the topic understandable?)

[ ] Very good
[ ] Good
[ ] OK
[ ] Less good
Comments and suggested improvements:

What is your opinion about the nuclear physics laboratory exercises as a learning aid?
[ ] Very good and useful
[ ] Good
[ ] OK
[ ] Less good
[ ] Bad or not at all useful
Comments and suggested improvements:

What is your opinion about the particle physics computer based laboratory exercise as a learning aid?
[ ] Very good and useful
[ ] Good
[ ] OK
[ ] Less good
[ ] Bad or not at all useful
Comments and suggested improvements:

What is your opinion about the course level, compared to your previous knowledge?
[ ] Very good, I really learnt a lot and had the right amount of previous knowledge
[ ] Good
[ ] OK
[ ] Less good, I learnt a few new things or it was a bit too difficult
[ ] I knew it all before
[ ] It was far too difficult

Comments and suggested improvements:

Did the course inspire to future studies or increased you interest in the field?
[ ] Yes
[ ] Not really
[ ] Not at all
Comments and suggested improvements:

How was your overall impression of the course?
[ ] Very good
[ ] Good
[ ] OK
[ ] Less good
[ ] Bad
Comments and suggested improvements:

Any other comments or suggested improvements for the future?