

Staff-Student Consultative Committee
Minutes for Meeting No. 2 of 2016/2017

Date: 5th May, 2017

Time: 11:15am

Venue: Rm 518A, CYM Physics Building, HKU

Present:

Dr. J.J.L. Lim (Chairman, Staff representative)

Dr. J.C.S. Pun (Staff representative)

Dr. M.K. Yip (Staff representative)

Mr. Wong Hong Tsun Thomas (1st year representative)

Mr. Gong Zheng Yang Guang (2nd year representative)

Mr. Ng Ka Wai Patrick (3rd year student representative)

Mr. Teh Chi En (4th year student representative)

Mr. Chan Ming Yan (Postgraduate student representative)

Miss Kwok Ka Yee, Elizabeth (Physics society)

Apology:

Dr. J.H.C. Lee (Staff representative)

(1) Report from the chairman

The Faculty of Science is having a Board Meeting on 9 May 2017 at which time Board Members are expected to vote on whether to cancel the Astronomy and the Math/Physics major. Having earlier asked student representatives to consult their peers on whether there are any other questions or comments they would like to pose to the Faculty of Science at the Board meeting, the postgraduate representative asked:

Concern: whether the cancellation of the Astronomy major will have an impact on research funding

Action item: the SSCC chair asked this question at the Faculty Board meeting. The Dean replied that he expected no impact at the level of the RGC. The SSCC chair followed up by asking whether cancellation of the Astronomy major would have a negative impact on perceptions for funding astronomy at HKU. The Dean replied that it would not be appropriate for the funding agencies to take such a view.

The chairman reminded the student representatives that they can continue to express opinions on the issue through various channels, including student representatives at the Faculty of Science. The Staff Student Consultative Committee (SSCC) remains one of the channels to collect and reflect their opinions to the department and faculty.

(2) Feedback from 1st year student representative

Concern: Students taking PHYS2250 (Introductory Mechanics) found Prof. Gao's accent difficult to follow.

Action item: Prof. Gao is retiring in 2017.

Concern: Students taking PHYS2265 (Modern Physics) pointed out that some problems in test 2 were very hard to solve.

Action item: This issue has been brought to the attention of the course coordinators (Prof. H. F. Chau and Dr. F. K. Chow)

Reply: I noticed that the standard of the students taking PHYS2265 is quite high. So I have set up some difficult problems in test 2 in order to identify outstanding students. (Dr. Chow)

Concern: Students taking PHYS1150 (Problem Solving in Physics) suggested the instructor provide more exercises for practice.

Action item: This issue has been brought to the attention of the course coordinators (Dr. S. Z. Zhang)

Reply: This I can do for the next academic year.

(3) Feedback from 2nd year student representative

Concern: Students taking PHYS3550 (Statistical Mechanics and Thermodynamics) expressed the following difficulties. There are many typos and errors in the lecture notes. They also reported that the experiment in PHYS3550 overlaps with the experiment in PHYS2265 (Modern Physics).

Action item: This issue has been brought to the attention of the course coordinators (Prof. M. H. Xie)

Reply: see below in reply to same concerns expressed by 3rd year representative.

Concern: Students taking PHYS2055 (Introduction to Relativity) would like to have more problems for practice during the tutorial sessions. The instructor only discussed assignment problems during tutorials.

Action item: This issue has been brought to the attention of the course coordinators (Dr. K. M. Lee)

Reply: In this semester, students were busy doing and asking questions about assignments in the tutorials. I did not have much time left. I could pick out exercises in books for students to practice in next semester.

Concern: Students taking PHYS2255 (Introduction to Electricity and Magnetism) suggested spending less time on the discussion of AC circuits, which they think should be covered in engineering courses. On the other hand, they had difficulty to work on the AC experiment before lectures on the subject were conducted.

Action item: This issue has been brought to the attention of the course coordinators (Dr. J. C. S. Pun)

Reply: The course coordinator will explore ways to better synchronize the coverage of materials in the lectures and in the laboratory.

Concern: Students suggested that the Department of Physics should be proactive to encourage junior undergraduates to take PHYS2255 (Introduction to Electricity and Magnetism) and PHYS2265 (Modern Physics). They foresee later difficulties in their Physics studies if they did not complete these courses in the first two years of study.

Action item: This issue was brought up at the Staff Meeting on 1 June 2017. This issue also has been brought to the attention of the Curriculum Committee (Prof. H. F. Chau)

Reply: This issue will be addressed by the CDMC.

Concern: Students suggested instructors in more specialized physics courses – PHYS3652 (Principles of Astronomy) being but one example – provide or recommend reading material beyond the recommended textbooks.

Action item: This issue was brought up at the Staff Meeting on 1 June 2017.

(4) Feedback from 3rd year student representative

Concern: Students taking PHYS3550 (Statistical Mechanics and Thermodynamics) expressed a number of difficulties. First, there are many typos and errors in the lecture notes. Second, students suggested that tutorials should be conducted in an interactive mode rather than simply writing solutions on the whiteboard. They also found that the test problems and the tutorial problems are very different in style and level of difficulty. Moreover, the lectures cover extra contents in quantum mechanics, creating difficulties among students not knowledgeable in quantum mechanics.

Action item: This issue has been brought to the attention of the course coordinators (Prof. M. H. Xie)

Reply:

1. There are many typos and errors in the lecture notes.

I will try to correct those. In fact, I have been correcting those in class during my lecture whenever they were spotted. I found students relied too much on lecture notes rather than textbook, which is not healthy.

2. The experiment in PHYS3550 overlaps with the experiment in PHYS2265 (Modern Physics).

The experimental issue will be discussed with Jenny Lee to see when the new experimental apparatus can be set up.

3. students suggested that tutorials be conducted in an interactive mode rather than simply writing solutions on the whiteboard.

I guess this could be an issue for more than one courses. It is down to tutor's ability, I guess. Unless some special arrangements are made (some kind of training?), I do not know how to solve the problem effectively. I may consider to conduct the tutorials myself rather than let the tutor doing it.

4. students found that the test problems and the tutorial problems are very different in style and level of difficulty.

I do not see why the test has to be of the same style as the tutorial questions, and in fact, I have deliberately made the tutorial questions a bit harder in order to train students. I could revise those tutorial questions.

5. the lectures cover extra contents in quantum mechanics, creating difficulties among students not knowledgeable in quantum mechanics.

No, I did not cover quantum mechanics! I have to use the result of QM in order to introduce the concept of 'multiplicity', 'density of states', etc., that are the things modern statistics is based on. For certain issues, I simply elaborated some those QM results to let them better appreciate those facts, but I did not require students to understand them!

(5) Feedback from 4th year student representative

Concern: Students studying EASC2408 (Planetary Geology) would like to know more about the level of difficulty and the style of final exam.

Action item: This issue has been brought to the attention of the course coordinators (Dr. M. H. Lee).

Reply: It was made clear to the students on multiple occasions that the questions will be similar to what they get in the mid-term and also the number of short and long questions. Also, past exam papers are available from the library.

Concern: Students studying PHYS4150 (Computational Physics) have difficulty in writing code. They suggested the course coordinator to

provide extra help on this area. They reported that they had to rush to learn and work on code writing in the first homework assignment.

Action item: This issue has been brought to the attention of the course coordinators (Prof. J. Wang)

Reply: I can put a prerequisite that students taking this course have to know basics of coding, or I can spend several lectures to discuss basics of coding in Matlab and hoping this is what majority of students want.

Concern: Students taking PHYS4654 (General Relativity) found the course too difficult. There is too much content, and the pace of teaching is too fast. The textbook is very difficult for beginners, and should be replaced by a more appropriate textbook.

Action item: This issue has been brought to the attention of the course coordinators (Dr. M. Su). The Committee noted that this is the first year that Dr. Su has taught this course, so it is to be expected that adjustments will have to be made from the experience gained.

Reply: From talking to some of them, I have already noticed the similar feeling from them. The content and level of difficulty is based on my past experience at PKU, Harvard, and MIT. I think GR could be split to two semester courses in order to cover the "necessary part" for a meaningful introduction of GR, just like QM has an advanced level course. If GR can only be taught in one semester, indeed it's hard to balance the content and difficulty. From next year I will make adjustment accordingly, lower the difficulty and slow down the speed of teaching.

Concern: Students taking PHYS4850 (Particle Physics) found the course too difficult in certain areas. For example, the Higgs boson cannot be easily found in textbooks for beginners, and the tutorial problems are too difficult.

Action item: This issue has been brought to the attention of the course coordinators (Dr. Y. J. Tu).

Reply: The particle physics is not an easy course for undergraduate students. I try to have a conceptual introduction and avoid too much theoretical computations. It is also not easy to find a textbook for undergraduate students. That is why I try to use the lecture notes. I hope that students can have a picture about the Standard Model theory (including gauge theory and Higgs mechanism) after taking this course. In addition, the course also includes the experimental part which is relatively easier to follow. From student's performance during the class quiz and exams, I can tell that about 1/3 students can really follow the lectures very well, about 1/3 are lost. The rest are in the middle. In future, I can further lower the level of the course content by adding more experimental content and reducing theoretical contents on gauge theory and Higgs mechanism.

Concern: Students taking PHYS7450 (Graduate Electromagnetism) found a high degree of overlap with PHYS4450 (Advanced Electromagnetism) except for a new topic on the application of Green's function.

Action item: This issue has been brought to the attention of the course coordinators (Dr. Z. D. Wang).

Reply: This course is a graduate level elective course targeting mainly graduate students (and also some year-4 undergrad students who may have strong interests to do further theoretical research). Although the main contents seem to overlap with the PHYS4450 in certain sense, the requirements and mathematical tools used (e.g., Green Functions and Method of Images) as well as the hardness/in-depth (including assignments) are quite different. As an example, the textbook of my course is a high level classical text book for graduate students in many leading universities worldwide. Of course, I got also one undergrad student feedback/concern on the above-mentioned point, I will try to refine some contents if this graduate course will be offered in future, for which the departmental CDMC may plan to re-structure this course (the course will not be taught in 2017-2018).

Concern: Students suggested that the farewell party should better be arranged in the last teaching day.

Action item: This issue was brought up at the Staff Meeting on 1 June 2017.

(6) Feedback from postgraduate representative

Concern: Postgraduate students would like to know if the consultation hours of teachers also serve them, as they would sometimes like to consult teachers beyond their immediate supervisors but are hesitant in doing so. They also suggested that the consultation hours of each teacher be posted on the departmental website, and to consider how alternative arrangements can be made if students are busy during the consultation hours.

Action item: This issue was brought up at the Staff Meeting on 1 June 2017.

Concern: A study group (informal one) on quantum field theory was well organized by Dr. K. M. Lee recently. Students would like to see if study groups of similar nature will be available in the future, e.g. quantum topology.

Action item: This issue was brought up at the Staff Meeting on 1 June 2017.

Concern: The requirement for passing the seminar course – e.g., number of seminars they have to attend – is not clearly stated. At the present time, they have to consult the front office (Michelle Lo) on the requirements. They suggested the course coordinator to make the requirements clear at the beginning of the course.

Action item: This issue was brought up at the Staff Meeting on 1 June 2017. This issue also has been brought to the attention of the course coordinators (Prof. J. Wang).

Reply: Since Xiaodong will be the next DRPC chairman soon, let me discuss with him and get back to you later on the number of seminars RPG students must attend. It is very difficult to anticipate the number of seminars we run in the semester. What we can do is to talk with our colleagues and ask them to provide names and schedule of potential speakers.

Concern: Postgraduate students wish to know more about activities and job opportunities in the Laboratory for Space Research (LSR).

**Action item:* This issue has been raised with the Director of the LSR, Prof. Sun Kwok.

Concern: Postgraduate students suggested the physics department to organize some outdoor activities such as hiking in order to develop better relationship between students and teachers.

Action item: This issue was brought up at the Staff Meeting on 1 June 2017.

Concern: Postgraduate students asked whether journal clubs in other area of physics can be organized. Currently, the only journal club is in the subject of astronomy.

Action item: This issue was brought up at the Staff Meeting on 1 June 2017.

Concern: The Astronomy major is phasing out from the curriculum. Postgraduate students who are doing research in this area have great concern on the funding and resource allocation in the future.

Action item: As reported above, this issue was raised at the Faculty of Science Board meeting.

(6) Feedback from Physics Society representative

Concern: A request on the availability of a society room was made. The room will serve as an office as well as a place for students to gather and study.

Deliberation: There is every desire to provide such a room once a free room becomes available.

Concern: A request on financial support was made because the society has very tight budget to organize activities. The number of students enrolled is small.

Deliberation: The SSCC recommends that the requests be passed through the Undergraduate Affair Committee for this Committee can help guide the request through the Department.

Action item: This issue was brought up at the Staff Meeting on 1 June 2017

The meeting was adjourned at 12:40pm

MK YIP (Temporary Secretary)

5th May 2017