

Physics Program Review

Faculty of

Dean's Summary

Submitted by:
Ora Steyn, Dean of the Faculty of Science

Accepted by:
Senate in September 2011
Academic Planning and Priorities Committee in June 2011

The purpose of the Program and Unit Review focused on the following areas:

- 1.

Recommendation 1: Given the high proportion of Physics courses taught by sessional instructors (~50%), it is recommended that at least one additional full-time lecturing faculty member be hired.

Action: The Physics Department has had a vacancy for a number of years. They are in the process of hiring a new faculty member at the moment. The plan is to have the new faculty member in place for Fall 2011. The department indicated that they may request another hire in about a year's time when one of the faculty will have to take on the task of Department Head.

Recommendation 2: With a view of strengthening the curriculum in Experimental Physics, the following actions are recommended:

Laboratory course PHYS 232 – Experimental Methods in Physics should be a required course for all students completing a Major or an Honors degree program in Physics at UFV.

Action: The Physics department indicated that the course in question is new and that they would like to offer the course before making it mandatory. The Dean is supportive but would like to urge the department to ensure this change be made as soon as possible as there will likely have to be a warning period for students before it can be implemented.

PHYS 382 – Modern Physics Laboratory I and PHYS 383 – Modern Physics Laboratory II
Purchase of new equipment for all upper-level laboratory courses.

Action: The Department will have to supply the Dean with a list of needed equipment and a budget once the inventory and testing of current equipment is complete. This will be taken into account for future budget planning.

The Physics Department should identify a “champion” for these courses who will take a leadership role in overseeing their future development.

Action: The Department has identified one of the faculty members as the champion for these courses. There is a request for two course releases for the faculty member to do an inventory of the labs, test the equipment, effect repairs, identify shortages in equipment, reflect on improvements and get the two new lab courses. A further recommendation is for a lab monitor student position for these courses. The Dean is supportive of these recommendations and would like to request a plan for the implementation of these courses with a clear timeline and budget.

A 5-year capital acquisition plan should be developed to revamp and modernize all equipment necessary for upper-level laboratory courses.

Action: The 5 – year capital acquisition plan will be developed once it what equipment will be needed has been established.

The department should consider making any two of PHYS 342, 372, 382 required courses for all students completing a Major degree program at UFV. (Currently this is a requirement for Honors students only).

Action: The department indicated that they will not consider this requirement until they have dedicated space and equipment to offer

Action: The Dean is supportive of this recommendation and will work with the department to develop a model and budget for implementation.

Recommendation 5: The Physics Department has identified 4 possible areas in which it might expand its programming: Medical Physics, Minor in Electronics, expansion of the Engineering Transfer program, and finally a Diploma in Engineering Physics. In view of its small size, it is unlikely that the department will expand in all those areas over the next 5 years. However for each new direction, the committee

could be of interest to students in a number of disciplines, in particular students majoring in Computer Science and Chemistry. Abbotsford is also home to a burgeoning industry in avionics and the department may want to consult with local companies to refine the content of the Minor.

Action: The department indicated that the required course could be developed easily. The Dean would request that the department