Dear Dr. Ros,

Sorry for the late reply. I consulted with my faculty and our undergraduate program chair, and we concluded that there is no conflict between your new biophysics courses and our BME courses.

Thank you,

Best,

Marco Santello

From: Robert Ros
Sent: Friday, November 09, 2012 10:40 AM
To: Marco Santello
Cc: Robert Nemanich; Adam Farni; Phyllis Lucie
Subject: New Biophysics major (BS) in the Department of Physics

Dear Prof. Santello,

The Department of Physics is looking to offer a new Biophysics major (BS) starting in the fall of 2013. It will be an interdisciplinary degree with significant exposure to chemistry and biology, as well as physics. The syllabus will rely on existing CHM and BIO courses, as well as existing PHY courses.

CLAS and the Provost Office approved the proposal for this new degree program. The program was also approved yesterday by the University Curriculum & Academic Programs Committee. However, during the discussion in this committee an impact statement from the Biomedical Engineering program was requested.

We are creating three new upper-division biophysics-specific courses for the Biophysics major program:

PHY 371 "Driving forces in Biology" (3 credits))

PHY 472 "Advanced Biophysics Lab" (3 credits)

PHY 373 "From Molecules to cells" (3 credits)

The new degree will demand a total of 60 credit hours, of which 36 credits are Major degree, 24 credits are related area. 4 additional credits are pre-requisite math (MAT270). 21 credit hours are upper division, meeting college requirements.

Because of the high demand of 60 credits hours (the maximum permitted by CLAS), we cannot ask students to take our usual PHY310 (Mechanics) and PHY 311 (Electromagnetism) courses. Instead, we have created a new hybrid course

PHY 312 "Mechanics and Electromagnetism" (3 credits)

This course will ensure that students get appropriate upper-division exposure to essentials in these important topics. The course will also be taught at a more appropriate mathematical level, as the Biophysics majors will not receive quite as advanced a mathematical training as the physics majors themselves.

Attached, you will find the syllabi-of-record for the four new courses. I also attach the proposed Biophysics Majors Map, as well as a Biophysics majors Chart, which attempts to lay out a likely sequence of courses that students will take.

The proposed changes for this new degree do not impact our existing physics Major degrees (BS, options 1 and 2; and the BA) or the minor physics degree. The minor-degree students could benefit from the new PHY312 course, which could be offered to them as an upper-division elective.

I would appreciate, if you could send me a statement, how our new program will have impact to the Biomedical Engineering B.S.E. program of the School of Biological and Health Systems Engineering.

Your help with this proposal is most appreciated.

Sincerely,

Robert Ros

Director of the Biophysics BS Degree Program

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Associate Professor

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