School of Natural Sciences **Life Sciences Curriculum Committee**

BIOLOGY FACULTY MEETING

April 6, 2010, 12 pm Science & Engineering 370K

Meeting Participants

David Ardell
Henry Forman
Carolin Frank
Andy Liwang
Patti Liwang
David Ojcius
Rudy Ortiz

Agenda Items

Discuss the life sciences assessment report for program learning outcomes 1:

Graduates from the Biological Sciences programs will have demonstrated an understanding of the tenets of modern biology and an understanding of how cellular functions are integrated from the molecular level to the cellular level, through to the level of organism, populations, and functioning ecosystems.

Hear proposals for improving the learning outcomes in the future. We are required by the WASC Steering Committee to hold this meeting before April 14.

Final Recommendations

Given the need for improvement of our students in areas such as Scientific Accuracy, instruction on this should start with our very first Biology courses. Therefore, BIO1 and BIO2 should be integrated properly into a 1 year introductory course as has been planned for some time, but not yet implemented. There are three major requests for the BIO1/2 committee in this regard:

1. All 5 program learning outcomes should be covered over the two semesters, at least to a basic degree, and these should be shared with students in the syllabi.
2. The faculty reaffirms the quantitative emphasis of the BIO major and would like that to continue to be part of BIO1/2.
3. The faculty requests that the BIO1/2 committee make sure that students have enough Chemistry background before teaching subjects such as “Metabolism”. Alternatively, it is fine to adjust BIO1 & 2 content so that it does not assume knowledge of organic chemistry. Previously, BIO2 was “biochemistry light”, but now it should be part of an integrated first-year biology curriculum and may not need to cover all aspects of biochemistry (such as chemical aspects of metabolism) that it previously covered.

In addition, there was discussion by some present that if Biology courses were going to require significant chemistry and/or math, it may be acceptable to ask students to take CHEM2 and/or MATH11 as prerequisites or co-requisites with BIO1/2. This was not universally agreed upon, since there are concerns about students finishing the major on time.