November 23, 2011

Bio Majors Committee Meeting

Present: Profs. Kramer, Benjamin Ortiz, Juergen Polle, Mary Dawson, Patricia Ferdinand, Sarah Salm, Stephane Boissinot

I. If a student intends to transfer to a new campus to begin a Biology major curriculum, s/he must be advised to have completed the following courses prior to transfer:

- One year of General Biology for science majors, 8 credits minimum, including lecture and lab (examples, BIOL 100 and BIOL 102 from Hunter College or BI 201, BI 202 from Queensborough CC)
- A minimum of one year of majors general chemistry (the equivalent of one whole year-example CHEM 102 and CHEM 104 from Hunter College).

II. Syllabi of 1st year Biology courses for science majors were reviewed. For a would-be Biology major, the general consensus of the committee is that a full year of General “majors” Biology (i.e. two semester courses taken at the same campus) must be transferred together. The scope of 1st years major’s biology is enormous and this policy will prevent repetition of material and/or undue gaps in a transferring student’s basic background.

III. Math requirements were discussed but the issue has been tabled for now.

IV. While the AP Biology course can provide excellent preparation for college-level major’s biology, the consensus of the committee is that AP course work should not be considered as an equivalent to 1st year “major’s” General Biology.

V. A grade of “D” in General “majors” biology courses should not be accepted for transfer. The rationale being that the committee believes it will be a disservice to allow a student who has not yet fully mastered the foundational material to move ahead in the major.

VI. A review of 1st year major’s general biology syllabi resulted in a preliminary list of major topics to be covered, in no particular order and learning outcomes. Faculty should be encouraged to exercise their academic freedom in determining the sequence and conceptual integration of the course topics. This will importantly allow individual instructors to infuse the material with the strength of their expertise and experience in the field. In turn this will enable instructors to transmit their enthusiasm for the material to their beginning biology students.

**Major topics to be covered:**

Chemical context of life

Cell Biology: Prokaryotes, Eukaryotes

Evolution

Molecular Genetics and the mechanism of inheritance

The biochemistry and physiology of metabolism
Homeostasis of Cells, Tissues, and Organ systems

Survey of the Diversity of Life

Ecology

Gene Expression and Central Dogma

**Proposed Learning Outcomes:**

1. Students will have a thorough understanding of the scientific method

2. Students will acquire an understanding of biological processes at the molecular, sub-cellular, cellular, tissue, organ, organ system, organismal, population and ecosystem levels

3. Students will develop a broad understanding of the unity and diversity of life

4. Students will acquire an understanding of ecological concepts

5. Students will acquire a thorough understanding of the mechanisms enabling the transmission of biological information

Respectfully submitted on behalf of the Bio Majors Pathways Committee,
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