

03 December 2020

ASU General Studies Council

### **Natural Sciences Subcommittee Report**

#### **BMY 230/294: How Nature Works and How Nature Works Laboratory (cross-listed as BIO 230/294)**

The Natural Sciences (SQ/SG) Subcommittee reviewed the proposal for these cross-listed, paired lecture-lab courses for the SG General Studies requirement. BIO/BMY 230 is a 3-credit course designed to teach core concepts of biology from the perspective of function. BIO/BMY 294, which will be renumbered BIO/BMY 231, is the paired 1-credit lab course and will be conducted largely in the field.

Our committee finds that although the courses do meet most of the SG Criteria,

- a. BMY 230/294 is offered by the School of Complex and Adaptive Systems, from which the proposal originated, but the cross-listed BIO 230/294 is offered by the School of Life Sciences. *We request a statement of support from the School of Life Sciences that specifically indicates approval for seeking the SG designation for **BIO 230** and **BIO 294**.*
- b. The BMY/BIO 230 Syllabus did not provide sufficient information as to how Criterion I.5 would be met. The Syllabus or the proposal must offer specific examples of how “students will understand the usefulness of mathematics in scientific inquiry” by “examining research required for course assignments”; i.e., evidence of incorporation of specific math concepts or applications, and explanation of how students will demonstrate their understanding. *We request a few samples of the research work the students will be tasked with reading, and of the instructions to students for completing course assignments.*
- c. The BMY/BIO 294 Syllabus did not provide sufficient information as to how Criterion I.7 would be met. The Syllabus or the proposal must adequately explain how the Written Research Assignments and post-lab reflections constitute “written reports of laboratory experiments” (whether in the lab or field). *We request a few samples of instructions to students for carrying out field lab activities and for completing Written Research Assignments and post-lab reflections.*

***Recommendation: The Natural Sciences (SQ/SG) Subcommittee does not recommend that BIO 230/294 and BMY 230/294 be approved for the SG General Studies requirement at this time, and instead recommends resubmission of a revised statement of support and SG proposal that addresses the three concerns listed above.***