**ASCC Natural and Mathematical Sciences Panel**

Approved Minutes

Wednesday, February 8th, 2023 12:30-2:00 PM

Zoom

**Attendees**: Cole, Kaizar, Ottesen, Steele

1. Approval of 1/25/23 minutes
   1. Kaizar, Cole; unanimously approved
2. Entomology 1350 (existing course with GEL Natural Science—Biological Science) and 1351 (new lab; taken together the courses will fulfill the 4 credit GEN Foundation Natural Science requirement) (return)
   1. *Recommendation*: The Panel recommends that the department list one or more digital photography device(s) (phone, tablet, digital camera, etc.) as a required piece of equipment under “Course Materials, Fees and Technologies; Required Equipment”, as Laboratory Exercise 2 requires students to take pictures of the animals that they observe.
   2. *Recommendation*: The Panel notes that the department may already be doing this as a part of the preparation for Laboratory Exercise 2 (given scientific studies that will be discussed and the mention of IACUC approval), but they offer a friendly recommendation that the department include some material regarding animal welfare when preparing students to include animal observation in their experiential activities.
   3. *Recommendation*: The Panel recommends that the department use the most up-to-date version of the Mental Health statement ( 1350 syllabus pg. 18 under “Your Mental Health” and 1351 syllabus pg. 18 under “Your Mental Health”), as the phone number and name of the suicide prevention hotline have changed. An up-to-date statement can be found here: <https://asccas.osu.edu/curriculum/syllabus-elements> .
   4. Kaizar, Cole; unanimously approved with *three recommendations* (in italics above).
3. Astronomy 5550 (new course)
   1. The Panel asks that the department provide more information in the syllabus about the “collaborative assignments” (syllabus pg. 2 under “Grading Information). Since these assignments will make up over half of students’ grades, the Panel would like the syllabus to provide more comprehensive information to students, including the following:
      1. The Panel asks that the department clarify for students whether the group work will take place in class, outside of class or a combination of both.
      2. The Panel requests that the department give more detail about the makeup of the groups, such as how and when they will be assigned, and whether students will work with the same group throughout the semester or be re-assigned to different groups for each project.
      3. The Panel asks that the department provide information on how group work will be evaluated.
      4. The Panel asks that the department specify what deliverables will look like for the assignments (i.e. a presentation, a written document, etc.)
      5. The panel asks that the group work be placed onto the weekly topical outline (syllabus pg. 2-3) to support an understanding of the amount of work that is expected of students.
   2. The Panel asks that the department include in the syllabus a statement about what devices/technologies the students will need to be successful in the course. If no special equipment is needed, they ask that this be stated in the syllabus.
   3. The Panel asks that a curriculum map be provided for the Astronomy and Astrophysics major that includes Astronomy 5550. (The document uploaded to curriculum.osu.edu and labeled as the curriculum map is actually a 4-year plan for undergraduate students.) A curriculum map shows how, and at what level (e.g., beginning, intermediate, advanced) each the program’s courses facilitate students’ attainment of program learning goals. A table format is recommended, and a sample template for a curriculum map can be found in Appendix 10 of the ASCC Curriculum Handbook (<https://asccas.osu.edu/curriculum/asc-operations-manual>) on pg. 78. Curriculum Maps are required to be updated each time a unit submits a new course that can be counted in their major.
   4. The Panel recommends that the department consider whether linear algebra (Math 2568) should be a pre-requisite for this course given the topics covered in the course calendar (syllabus pg. 2-3).
   5. The Panel recommends that the department consider whether experience with the Python programming language (as mentioned on pg. 1 of the syllabus) should be a formal prerequisite for the class (CSE 1224), or at least be mentioned in the course description (Course Request Form under “General Information”). If an introduction to Python is covered in both Astronomy 3350 and Physics 3700, the Panel understands that a formal pre-requisite may not be necessary.
   6. The Panel recommends that the department remove the reference to the “standard OSU grading scale” (syllabus pg. 2 under “Grading Information”) as Ohio State does not have a standard grading scale; instructors are free to choose any scale that best meets the needs of their particular course.
   7. No Vote
4. Earth Science 5757 (new course)
   1. The Panel asks that the department obtain concurrence from the Department of Computer Science and Engineering and the Department of Statistics.
   2. The Panel asks that the department provide further information about the course structure provided in the “Course Overview and Goals” section of the syllabus (pg. 1), clearly describing for students the expectations for time spent in class and outside of class. They recommend that this include not only the description of how students will spend time in class (they assume that this is what is currently provided), but also what expectations are for out-of-class work, especially given that students may need to utilize the on-campus computer lab for homework/assignments.
   3. The Panel recommends that the department carefully consider the grading scheme of the course, assessing whether there is a sufficient correlation between the course’s expected learning outcomes and students’ final grades; grades of S/U might also be a possibility for the current structure. The Panel notes that, according to pg. 3 of the syllabus, the weekly assignments involving the Jupyter notebooks will be graded as pass/fail.  Since these notebooks are 80% of the course grade and students can receive up to a 10% bonus simply for attending class (syllabus pg. 4 under “Course Grading”), it appears that students could earn a grade of A- by doing the minimum to pass the Jupyter notebook assignments each week and attending every class meeting, even if they do not attempt the final project.
   4. The Panel recommends that the department consider whether linear algebra (Math 2568) should be a pre-requisite for this course given the mention of the use of “basic linear algebra” on pg. 2 of the syllabus.
   5. The Panel asks that the department use the disability services statement (syllabus pg. 4) that is required by the Arts and Sciences Curriculum Committee for all Arts and Sciences courses. This statement can be found in an easy-to-copy/paste format here: <https://asccas.osu.edu/curriculum/syllabus-elements>.
   6. The Panel recommends that the department use the college’s preferred language for their diversity statement (syllabus pg. 4-5). This statement can be found in an easy-to-copy/paste format here: <https://asccas.osu.edu/curriculum/syllabus-elements>.
   7. The Panel recommends that the departments use the most up-to-date version of the Mental Health statement (syllabus pg. 5 under “Mental Health”), as the phone number and name of the suicide prevention hotline have changed. An up-to-date statement can be found here: <https://asccas.osu.edu/curriculum/syllabus-elements>.
   8. No Vote