

ASCC Natural and Mathematical Sciences Subcommittee

Approved Minutes

Thursday, August 29th, 2024

1:15PM – 2:45PM

CarmenZoom

Attendees: Barker, Carlson, Cole, Dinan, Hadad, Hilty, Lee, Steele, Vankeerbergen

- 1) Welcome and Introductions
- 2) Overview of the Work of the Subcommittee (C. Hadad & B. Vankeerbergen)
- 3) Approval of 05/01/2024 Minutes
 - Cole, Lee, **unanimously approved**
- 4) Molecular Genetics 1103 (new course requesting GEN Foundation: Natural Sciences) (Return)
 - The Subcommittee would like additional information surrounding the activities that will be taking place during the laboratory sessions. Specifically, they would like a brief explanation of what students will be expected to complete during each laboratory session and how students will be assessed within the laboratory. In the GEN Foundation application form, there is mention underneath ELO 2.1 that laboratories will consist of significant amounts of discussion. While, of course, discussion is a very valuable and pedagogically important aspect of course design, the Subcommittee worries that the course will not generate enough quantifiable material for when the course is assessed as part of the University's assessment of the GEN Foundation: Natural Sciences category. Will students be assessed based upon a rubric during these discussions? Will there be additional activities that will assess student learning?
 - The Subcommittee would like additional information, as noted in the course syllabus, surrounding the space in which the laboratory activities will be taking place. Does the department have available space for this work? If not, there is concern that the appropriate space may potentially be difficult to secure.
 - The Subcommittee would like the page numbers of the required readings to be placed within the course calendar (as found on pages 11-13) on the

syllabus. This will allow students an accurate understanding of their workload for each week of the course.

- The Subcommittee asks that the concurrence response from the College of Food, Agricultural, and Environmental Sciences be uploaded as part of the revision when submitted. Right now, the Subcommittee has only been provided with the email requesting concurrence and does not have access to the response from CFAES.
- On page 2 of the syllabus, there is a slight error in the credit hour expectations for this course. For “laboratory” parts of courses, the expectation for credit hours is for every 2 hours of in-class laboratory, there is only 1 hour of out-of-class work expected to earn a letter grade of “C”. In other words, for a 4-credit hour course, students can expect 6 hours of out-of-classroom work for the 3 credits of lecture, and 1 hour of out-of-classroom work for the laboratory experience for the 1 credit of laboratory. Therefore, students should expect 7 hours of work per week instead of 8.
- The Subcommittee asks that a cover letter be submitted that details all changes made as a result of this feedback.
- **Declined to Vote**

5) Earth Sciences 5201 (new course)

- The Subcommittee noted that in the course goals, as listed in the curriculum.osu.edu submission, students can expect to learn about seismic data analysis. However, it was unclear where in the course students will be expected to gain the skills necessary to analyze seismic data. Will there be lectures or readings on the topics? Will students be assessed on this knowledge? They would like additional information within the syllabus surrounding what is expected regarding this course goal.
- The Subcommittee noted that 50% of the final course grade is based upon the homework assignments for the course (as noted on page 1 of the course syllabus). They would like additional information to be provided surrounding these assignments and how academic integrity will be upheld as students complete these assessments. Are students able to collaborate on these assignments? Are students permitted to utilize Generative AI, such as ChatGPT or Copilot? Additionally, the Subcommittee recommends considering providing less weight to these homework assignments and implementing other modes of assessment that will allow students an opportunity to reflect upon the knowledge they are gaining from the course materials.

- The Subcommittee noted that this course will be utilizing many different software programs as part of the course experience. The College of Arts and Sciences requires all software programs to be approved by the Office of Distance Education to be included within courses. Therefore, the Subcommittee asks that all programs being utilized be run by Elizabeth Marsch (contact email: vu.191@osu.edu), Director of the ASC Office of Distance Education, to ensure they are approved programs.
- The Subcommittee would like further information surrounding the course prerequisite as described within curriculum.osu.edu and the course syllabus. Specifically, they note that the mathematics requirement is Calculus III. However, the prerequisite (and course topics in the syllabus, as noted on page 2) mentions that students should know the concepts of linear algebra. Would a student be able to be successful should they not have completed or have experience with linear algebra? Additionally, the prerequisite mentions that students should have a working knowledge of either Python or Matlab. If this is a requirement for students to be successful within the course, this should be a prerequisite for the course (such as by requiring CSE 1224). Should the instructor wish to make a case-by-case basis as to whether a student has the appropriate skillset (such as if they have informal/out-of-classroom proficiency with the appropriate programs), the current prerequisite of “or permission of instructor” may be used to make this determination.
- The Subcommittee asks to see the contact hours within the course syllabus. While the syllabus lists that the course is worth 3-credit hours, they would like to see how often the course meets and for how many hours. This is a requirement for all syllabi within the College of Arts and Sciences. All syllabus elements can be found on the [ASC Curriculum and Assessment Services website](#).
- The Subcommittee recommends the following small updates within the course syllabus:
 - The course grading scale, as mentioned on page 2 of the syllabus, could be difficult for some students to read. They recommend providing this information in a table format.
 - The Student Life – Disability Services statement, as mentioned on page 5 of the syllabus, has been updated for the 2024-2025 academic year. The most up-to-date syllabus statements can be found on the [ASC Curriculum and Assessment Services website](#).

- The Subcommittee asks that a cover letter be provided that details all changes made as a result of this feedback.
- **Declined to vote**

6) Astronomy 3810 (new course)

- The Subcommittee would like to see additional information surrounding the course assessments and how students will be expected to demonstrate and reflect upon the knowledge they have learned during their time within the course. While they recognize there is information underneath the “Grading and Assignments” section on page 2 of the syllabus, there is no indication on how students will be assessed. Additionally, please indicate what percentage of the course assessments students are required in order to receive the “S” mark once the corrections to the grading scale are made (if the course is, of course, graded on the S/U scheme).
- The Subcommittee would like to see additional information in the course description submitted to curriculum.osu.edu about how this course is specific to the field of Astronomy and Astrophysics. Currently, the description seems as it could apply to many disciplines, while the course content appears to be focused on material offered by the Department of Astronomy.
- The Subcommittee would like information surrounding the prerequisites of the course. They are concerned that, without prerequisites, students will enter the course without the necessary background knowledge. They recommend, perhaps, considering prerequisites that the department believes will provide students with the necessary background knowledge to be successful in the course (such as introductory science or mathematical coursework, as an example).
- The Subcommittee asks that a cover letter be submitted that details changes made as a result of their feedback.
- **Declined to vote**