

## ASCC Natural and Mathematical Sciences Subcommittee

### Approved Minutes

Thursday, November 7<sup>th</sup>, 2024

1:15PM – 2:45PM

CarmenZoom

**Attendees:** Barker, Carlson, Cole, Dinan, Hadad, Lee, Neff, Steele, Vankeerbergen

### Agenda

1. Approval of 10-24-24 minutes
  - a. Barker, Cole; unanimously approved.
2. Revision Actuarial Science BS
  - a. **Contingency:** The Subcommittee requests that the breakdown of the General Education requirements on the advising sheet be revised so that 4-5 credit hours are allocated to the Mathematical & Quantitative Reasoning/Data Analysis category. Additionally, the total credit hours for the General Education requirements should be adjusted to reflect a range of 32-39 credit hours. While the Subcommittee understands the department's assumption that all students will need to take calculus, it is possible that some students may enter with 4 rather than 5 hours of calculus credit, and this should be considered in the credit allocation.
  - b. **Contingency:** The Subcommittee requests that the department include a sentence in the cover letter explicitly stating the request to add English 3305 to the list of courses that fulfill the Advanced Writing Embedded Literacy requirement. Currently only English 3304 is approved to fulfill that requirement. Additionally, on the advising sheet, the Subcommittee asks that English 3305 be added to the list of Embedded Literacy courses in the designated box at the bottom of the sheet.
  - c. **Contingency:** For clarity, the Subcommittee requests that the department use the same format used for the English course option to indicate that students must choose between Math 4530 and Stat 4201.
  - d. **Contingency:** The Subcommittee requests that the department update the advising sheet to reflect the proper term of implementation, as it currently states Autumn 2022.
  - e. Lee, Cole; unanimously approved with **four contingencies**.
3. Chemistry 3573 (new course requesting GEN Theme Citizenship for a Diverse and Just World & Interdisciplinary and Integrated Collaborative Teaching HIP)
  - a. The Subcommittee is unclear whether concurrence was actually obtained from Earth Sciences and Geography. While the Subcommittee is aware that communication between units has occurred, they request that the department either obtain formal concurrence from Earth Sciences and Geography or include in the submission important communications with those units that were inadvertently left out of the proposal.

- b. The Subcommittee also notes that few departments in the divisions of NMS and SBS appear to have responded to the request for concurrence. If the following departments did indeed not respond in time and if thus concurrence from them needs to be assumed, could you please state that in an uploaded memo or a note on the form in curriculum.osu.edu: CLSE, EEOB, Microbiology, Molecular Genetics, Astronomy, Mathematics, Physics, Psychology, Anthropology, Economics, Political Science, Speech and Hearing Science. If on the other hand some of those concurrences were received but not uploaded by the Dept of Chemistry, please do so.
  - c. The Subcommittee recommends that the department use the most recent version of the Student Life Disability Services Statement, which was updated in summer of 2024. The updated statement can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [Syllabus pp. 11-12]
  - d. The Subcommittee requests that the department replace the faith-related absences section of the syllabus (p. 3) with the required religious accommodations statement. This required statement is a result of a directive by the Executive Vice President and Provost and can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). Please note that the link to religious holidays, holy days and observances at the end of the statement is also required to be included in the syllabus.
  - e. Declined to vote.
4. New interdisciplinary MS and PhD in Quantum Information Science and Engineering, including new courses: QISE 7100, 7101, 7102, 7111, 7112 & 7113
- a. The Subcommittee notes that the proposal does not appear to mention responsible research training, which they believe is a requirement of the NSF NRT grant. The Subcommittee requests that the program proposers address this omission and provide information on how responsible research training will be incorporated.
  - b. The Subcommittee notes that the proposal does not mention teaching assistant opportunities for QISE students at any stage, though TAs are anticipated for the courses. The Subcommittee is unclear on where these TAs will be sourced and asks that the proposers offer clarification on this issue.
  - c. The proposal states that the MS program will be primarily delivered with in-person format, but asynchronous options will be encouraged for students balancing other responsibilities. The Subcommittee recommends that the proposers remove this reference to online options and suggests that distance learning be considered at a later time to avoid delaying the approval process. (Indeed, in order for courses to be offered online, these need to go through an additional DL approval process and that is currently not part of how the courses are being submitted.) With this, the Subcommittee encourages the proposers to consider offering in-person courses during non-traditional hours to accommodate the needs of these students. [Proposal p. 8]

- d. The Subcommittee notes that the MS and PhD programs are based on the same set of courses, with the primary distinction being whether students will engage in original research. The Subcommittee raises the concern of whether there are enough courses to sustain the programs individually or if there are other experiences that will be sufficient to set them apart.
  - e. The Subcommittee notes that course number 7999 is currently used in much of the proposal to represent research for both the MS and PhD programs. While it is accurate that 7999 is used for research for master's thesis, the University uses two other numbers at the PhD level: 8998 is used for pre-candidacy research for dissertation & 8999 is used for post-candidacy research for dissertation. Once in the proposal, on p. 161, QISE 8999 is mentioned as being the number for post-candidacy research, but that page also indicates that 7999 will be used for pre-candidacy research—thus erasing the distinction between 7999 for master's students and 8998 for pre-candidacy doctoral students. Please adjust the proposal where necessary, including the advising sheets at the end of the package.
  - f. The Subcommittee notes a discrepancy regarding degree paths for the MS program. The rationale section of the proposal outlines three paths towards the degree (course-based, project-based, or thesis-based), but the degree requirements section of the proposal presents only two options (course-focused and thesis-focused). The Subcommittee asks that this difference be reconciled to ensure consistency. [Proposal p. 8, 23]
  - g. Declined to vote.
5. QISE 7100
- a. Throughout the program proposal and the graduate handbook, this course is said to be 4 credits. Yet, the syllabus indicates it will be a 3-credit course and will only meet 3x55 min each week (p. 1).
  - b. The Subcommittee asks that the course schedule list the required readings for each class session to provide students with a better understanding of the weekly workload and clarify which readings are aligned with each specific class. [Syllabus pp. 5-7]
  - c. The reviewing faculty recommend that the unit use the most recent version of the university's diversity statement if they wish to keep it in the syllabus. The updated statement can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [Syllabus p. 9]
  - d. Declined to vote.
6. QISE 7101
- a. Throughout the program proposal and the graduate handbook, this course is said to be 4 credits. Yet, the syllabus indicates it will be a 3-credit course and will only meet 3x55 min each week (p. 2).
  - b. As it can be challenging to assess individual contributions when students work together on projects, the Subcommittee suggests that there be an opportunity for students to perhaps grade their group members or clearly identify the specific

components of the final project they contributed to in order to provide accountability.

- c. The Subcommittee requests that the course include individual assessment as this does not appear to be a defined component of the course, even with the requirement for students to submit their own work when collaborating with others.
  - d. The Subcommittee requests that the department provide clarification on how the same textbook will be utilized across QISE 7100-7102 Including the specific readings for each class session within the course schedule in the syllabus would help demonstrate that the text will effectively support each course. [Syllabus pp. 6-7]
  - e. Given the strict participation expectations, the Subcommittee recommends including a brief section in the syllabus outlining potential exceptions in special circumstances. [Syllabus p. 2]
  - f. If a rubric exists for the weekly reflections, the Subcommittee requests that it be shared. Providing this rubric would offer students clear guidance on the assignment expectations.
  - g. It appears that language regarding exams has been carried over from another syllabus. Since there are no exams in this course, the Subcommittee recommends removing this section. [Syllabus p. 5]
  - h. The syllabus states that the course is divided into weekly modules, with each module released a week ahead of time. This language also appears to be a remnant from another syllabus and does not seem relevant to the delivery of this course, so the Subcommittee also recommends removing this language. [Syllabus p. 2]
  - i. The reviewing faculty recommend that the department use the most recent version of the university's diversity statement if they wish to keep it in the syllabus. The updated statement can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [Syllabus p. 9]
  - j. Declined to vote.
7. QISE 7102
- a. The Subcommittee requests that the department provide clarification on how the same textbook will be utilized across QISE 7100-7102. Including the specific readings for each class session within the course schedule in the syllabus would help demonstrate that the text will effectively support each course without redundancy. [Syllabus pp. 4-5]
  - b. The reviewing faculty recommend that the department use the most recent version of the university's diversity statement if they wish to keep it in the syllabus. The updated statement can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [Syllabus p. 7]
  - c. Declined to vote.
8. QISE 7111
- a. The reviewing faculty recommend that the department use the most recent version of the university's diversity statement if they wish to keep it in the syllabus. The

updated statement can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [Syllabus p. 4]

- b. Declined to vote.
9. QISE 7112
- a. The reviewing faculty recommend that the department use the most recent version of the university's diversity statement if they wish to keep it in the syllabus. The updated statement can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [Syllabus p. 4]
  - b. Declined to vote.
10. QISE 7113
- a. Credit and contact hours:
    - i. P. 160 of the program proposal indicates that this course will be offered as 1+ credits. However, the syllabus indicates it will be offered by 3-credit hour increments (p.1). Please reconcile the two statements.
    - ii. Furthermore, p. 1 of the syllabus indicates that this course will be delivered in 7 weeks. If this is correct, then the students should expect 6 hours per week per credit hour (instead of the stated 3). The next sentence should then read "For research rotations, this translates to **18-20** hours per week during the rotation" (instead of the stated 9-10).
  - b. Since this course will be repeated by students, the Subcommittee suggests that the proposers remove the "1<sup>st</sup> Year" from the course title. As the required core courses for the PhD degree references 15+ required credits of 7113, students will be repeating this course beyond their first year.
  - c. The Subcommittee requests that the software statement in the syllabus be revised to specify that the course software will depend on the particular lab. Additionally, they recommend identifying the possible software options that may be used, providing students with an idea of the tools they will encounter. [Syllabus p. 2]
  - d. The reviewing faculty recommend that the department use the most recent version of the university's diversity statement if they wish to keep it in the syllabus. The updated statement can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [Syllabus p. 4]
  - e. Declined to vote.