

**UNIVERSITY OF MICHIGAN**  
**College of Engineering**  
**Curriculum Committee Meeting**  
**Tuesday, November 21, 2023**

**Attending:** Achilleas Anastasopoulos, Jack Baker, Robert Bordley, Yavuz Bozer, Roger De Roo, Chris Fidkowski, Fei Gao, Saadet Albayrak Guralp, Amir Kamil, Leena Lalwani, Xiaogan Liang, Cameron Louttit, Emmanuelle Marquis, Radoslaw Michalowski, Yulin Pan, Mika Panagou, Eric Rutherford, Rachael Schmedlen, Ben Spector, Roxanne Walker

**Support Staff:** Stacie Benison, Betsy Dodge, Matthew Faunce

**Call to Order: 1:35pm**

**Adjourned: 2:47pm**

**Agenda:**

1. Approval of 10.24.2023 Meeting Minutes - Page 2 - **APPROVED**
2. URO ROB CARFs Discrepancies and Requests– Informative Item – Page 4
  - a. Situation summary: A student was unable to register for ROB 450 when they had seemingly met the prerequisites. The enforced prerequisites on the course were, "Junior standing and [TCHNCLCM 350; (C or better)] and [ONE of ROB 310, 311, 320, 330 or 340; (C or better)]." When the Robotics Department had included "junior standing", they were under the impression that this meant at least junior standing but after speaking with the URO, they discovered that this is what is restricting senior students from enrolling. Michael Shearon assisted Robotics in updating the enforced prerequisite to read "Junior or senior standing and [TCHNCLCM 350; (C or better)] and [ONE of ROB 310, 311, 320, 330 or 340; (C or better)]" so that seniors could register for the Winter 2024 term. A Modification CARF with these edits was submitted and sent to the RO Curriculum Office on 11.20.2023.
  - b. For future reference, when a department requests a credit exclusion between courses, the department needs to be aware that for the credit exclusion to work properly, a CARF updating the credit exclusion for each course included must be submitted.
  - c. You cannot have a credit exclusion based on one section of a course. This can be added to the Enforced Prerequisite section instead, for example: *No credit in ENGR 100, topic "Robotics Mechanisms (topic ID 29)"*
3. HLC Annual Audit Questions for the CoE Curriculum Committee – Informative Item – Xiaogan to Present - Page 8
  - a. Question 1 (How should departments handle courses that are taught in combination with other institutions? How should departments handle it when the course is taught at UM? Do courses that are a teaching collaborative need to follow CoE Policy for the Assignment of Credit Hours?) - **PENDING**
    - i. CCC Chair Xiaogan Liang discussed that the course design should fit the requirements of both institutions.
    - ii. ROB representative had mentioned that Chad Jenkins has been leading the effort on the UM side, he can offer more information on the syllabus, course materials associated with this course and the agreement between the two universities. CCC Chair Xiaogan Liang will send an email to Chad Jenkins requesting clarification.
    - iii. A question was asked if the course is offered residentially, and it was answered that for UM students, this will be offered online, and lectures are conducted synchronously at Florida A&M University.
    - iv. CSE representative noted that the course is currently scheduled Tuesday & Thursday 9:30am-10:45am for 3 credits and asked for clarification that the discrepancy in contact hours was 10 minutes per week. Given that courses at UM are scheduled to the end of the hour but release students 10 minutes early, the discrepancy appears to be 5 minutes in lecture time.

- v. A few CCC members agreed that the department should schedule the class at the UM campus until the end of the hour (in the case of the current class, that would be until 11am, or a total timeframe of 9:30-11am with the understanding that students will be let out 15 minutes early, knowing this is comparable to UM.
- b. Question 2 (When was the lab policy established?) - **RESOLVED**
  - i. The current CoE Policy for the Assignment of Credit Hours was approved October 13, 2020. There was no further response from CCC members with knowledge of earlier dates of the Credit Hour Policy, but it was understood that Labs met for 2 contact hours for each credit.
- c. Question 3 (Do labs need to be scheduled in a formal CoE Computer Lab space when the work can be done online?) – **PENDING**
  - i. Combined discussion below under question 4.
- d. Question 4 (Are the activities associated with the online, self-paced, asynchronous Canvas modules used in ENGR 101 and 110 and other departmental courses acceptable as CoE contact hours?) – **PENDING**
  - i. Questions posed regarding a shift to more virtual instruction:
    1. What does it mean to have a tutorial with interactive tutorial without further participation from a faculty member?
    2. What happens when there is a course with minimal faculty interaction?
    3. Will students see this as a deterrent to attending the University of Michigan if they can receive similar instruction through online methods or videos?
  - ii. ECE representative commented on the interactive aspect of lab courses, with an example of a course taught with a regular lab, but during COVID students were allowed to build their circuits at home. They questioned what is the difference between a lab versus a homework assignment? Are students required to come to the lab so that they can show their work, have faculty supervision, and have faculty retain an active role in the learning process? Concern was expressed regarding software labs in which the work is being done all at home regarding whether this could be considered a lab.
  - iii. CCC Chair Xiaogan Liang mentioned using Piazza for providing answers to student inquiries and mentioned that the nature of the course can determine what components may be most desired to count as contact hours. He noted that for some courses, if a student does not attend the lab, they won't have access to the necessary tools. But for software courses in which students can work from any location, providing student feedback through a platform such as Piazza or other platforms that allow faculty to respond in the moment can be sufficient for providing faculty interaction to students.
  - iv. CSE representative added that the current definition of contact hours does not capture most interactions between instructors and students and what instructors and students themselves think is effective. The CSE representative mentioned having a 16-minute average response time for EECS 280 for Piazza, and that 1400 of these responses were their own. Office hours have been effective for many students taking CSE courses as this is noted as one of their primary methods for interacting with faculty. When attendance at lectures has been made optional, students have been attending class less and have instead been focusing their time on attending office hours. From the point of view of staffing hours, staff find it is more effective for faculty and staff to spend more time on Piazza office hours than being in the room with students. It would be nice for the policy to account for the "on the ground reality" of how faculty members spend their time interacting with students.
    1. A question was raised regarding how the college can redefine the contact hours policy to consider reasonable interaction through real-time interaction of faculty with students in office hours.
- v. ENGR/ADUE representative Rachael Schemedlen noted that both ENGR 101 and 110 came to their current structure by going through the Foundational Course Initiative process to determine how best to deliver course content. In ENGR 101, students really like the way the online modules work and feel it is an effective way to learn.
  1. The CCC should consider defining what course activities can be defined as "faculty-led engagement."
  2. The CCC should provide guidance on what is considered "interactive computer-assisted instruction" and what's the difference between "interactive tutorial without any further participation" and "interactive tutorial".
- vi. IOE representative commented on seeing two faculty interaction paths, one being learning something new in a team setting, in which a physical lab plays a bigger role, and assisting students with their questions about course content, in which students typically receiving assistance through office hours.

- vii. CCC members had a discussion surrounding whether student questions answered by faculty, on any platform, would be considered contact hours, such as on platforms like email or Piazza.
    - 1. IOE representative raised that the Michigan Medicine Patient portal displays a message that lets customers know that their message exchanges with physicians may result in medical charges.
    - 2. It was noted that complications may arise in how to define faculty engagement through message responses to students in a tangible way.
  - viii. A question was raised regarding when students work on the software associated with ENGR 101. Are students able to have a question answered in real time? ENGR/ADUE representative Rachael Schemdlen mentioned that Prairie Learn is the platform used to deliver this course content, which combines Canvas and Slack. Rachael will confirm whether the platform has this functionality for faculty to respond to questions in real-time.
  - ix. A question was raised regarding how an “instructor” is defined for contact hours, whether this is defined primarily as the professor or if a GSI or student teaching assistants would count.
  - x. It was determined by CCC Chair Xiaogan Liang that departments should go to back to their departmental constituents to collect further feedback, and this topic will return to a future CCC meeting as well as the review of the current Credit Hour Policy.
- e. ACTION ITEM: Departments should review questions 1, 3, and 4 with key departmental constituents for feedback and these items will return to a future CCC meeting for a review of responses and a vote on any necessary policy changes or decisions.**
- 4. Updates for the CoE Curriculum Committee on the HLC Annual Audit Process – Action Item – Xiaogan to Present – Page 10
    - a. Update – feedback has now been received on both the MATSCIE and UARTS spreadsheets.
  - 5. Proposal to Update CoE Minor Policy – Double Counting Policy Discrepancy – Action Item – Betsy to Present - Page 12 – **UPDATE APPROVED**
    - a. A question was asked whether the number of courses counted between minors is checked, and the answer is yes, departments should be checking this information.
    - b. A question was raised, “Why are there differences between LSA and CoE’s minor policies?”
      - i. A comment was made by CSE representative regarding students who see minors as “coupon collecting”, or students taking advantage of double counting rules to earn additional minors. Alternatively, students who have fulfilled the course requirements needed for a minor should earn the certificate for the minor.
    - c. A comment was made by CCC Chair Xiaogan Liang regarding looking into whether CoE should propose to schedule a joint meeting between LSA and CoE to discuss their differing minors policies.
    - d. There was a unanimous vote and the policy update to the updated language was approved. The CoE RO will make the associated update to the policy.

PAGE	SUBJECT	COURSE #	ACTION	SUMMARY	EFFECTIVE TERM	MIN. GRADE REQ. FOR ENF. PREPREQ	Is Course on LSA Course Guide?	APPROVED	NOTES & REVISIONS	TABLED
19	EECS	440	NEW		FT 2024	C	NO	APPROVED		