

UNIVERSITY OF MICHIGAN
College of Engineering
Curriculum Committee Meeting
Tuesday, January 16, 2024

Attending: Achilleas Anastasopoulos, Robert Bordley, Yavuz Bozer, Laura Burdick, Chris Fidkowski, Fei Gao, Saadet Albayrak Guralp, Vineet Kamat, Amir Kamil, Leena Lalwani, Ryan Latimer, Xiaogan Liang, Frank Marsik, Radoslaw Michalowski, Mika Panagou, Rachel Patterson, Anchal Sareen, Rachael Schmedlen, Ben Spector, Roxanne Walker

Support Staff: Mercedes Carmona, Betsy Dodge, Matthew Faunce

Call to Order: 1:35 PM

Adjourned: 2:46 PM

Agenda:

1. Approval of 12.05.2023 Meeting Minutes - Page 2 - **APPROVED**
2. CSE DS-Eng Program Modification Proposal – Action Item - Page 5 – **APPROVED**
 - a. The current Data Science major is missing an introductory Data Science course for students to become more familiar with Data Science as well as not seeing statistics content until taking STATS 412. To combat these issues, DATASCI 101 (STATS 206) has been developed and is strongly encouraged for students to take. For students that have already taken a statistics course before discovering Data Science, there will still be acceptance of other introductory level statistics courses.
 - b. Another change will be splitting the two course “advanced technical elective” requirement into one course of “advanced technical elective” and one course of “advanced statistical analysis electric” (STATS 306, 315, 415, 426, 449, 451, 470, 480, 485, and some 500 level options which will be accessible only to some advanced students). Statistical analysis courses will continue to appear on the technical elective and application elective lists, which will remain unchanged. This change will make sure that one advanced statistical analysis course is taken and to help balance the interdisciplinary major between its CS and statistics components; it was previously the case that one could potentially graduate without taking any course other than STATS 413 from the statistics department. Most DS students already take multiple advanced statistics courses, but the recent restrictions on declaring CS make it timely to prevent a DS major from skewing excessively toward CS.
 - i. A follow up question was asked if a student can take both classes at the same time. If a student chooses to, they will have a path to take both classes simultaneously.
 - c. Program proposal effective for Fall 2024 with changes applying only to students matriculating for Fall 2024 or later. Any student in the program before Fall 2024 will be grandfathered into the previous requirements. Overall program credits changing from 128 to 132.
3. CSE CS-Eng Program Modification Proposal – Action Item - Page 9 – **APPROVED**
 - a. Modification of reducing the number of required Upper Level CS (ULCS) Technical Electives from 16 credits to 15 credits and increasing the number of General Electives from 15 credits to 16 credits. This change will make it easier for students to register for courses needed to complete the major and increase the set of courses that satisfy the ULCS Requirements.
 - i. Every course that satisfies the ULCS Requirements is a 4-credit course as students take 4 courses for 4 credits to achieve the 16 credits requirement.
 - ii. Exceptions, sent by the student and approved by the department, are allowed for students for 3-credit courses for study-abroad courses through IPE (i.e., Computer Science and Tech Career Accelerator in Prague).

- iii. By adjusting the ULCS Technical Electives credit total to 15, this will make it easier for the department and students regarding exceptions as the department has seen numerous done throughout the program for the credit requirement.
 - 1. The overall program credits will stay the same at 128 credits as rearranging the credit totals will allow for less exceptions needed for both the department and students within the program.
 - b. Program proposal effective for Fall 2024 and is “backwards compatible” meaning a student who meets the current program requirements would also meet the new program requirements.
- 4. HLC Annual Audit Questions 3, & 4 for the CoE Curriculum Committee – Informative Item – Page 12 - **PENDING**
 - a. How can we change our current credit hour policy to include online modules? How can we set a boundary for the credit hours, and no one can abuse? I.e., Record all lectures and just let the students view when they can to complete the course.
 - i. NERS: Depends on CoE Policy, if this is allowed for online classes then it would be allowed for all classes.
 - ii. MECHENG: Office of Provost has definition of credit hours. Such activity should be faculty lead and there should be interaction with the faculty and not just for the student to take the course online.
 - iii. EECS: What steps or processes does a course need to go through to be able to be online? ADUE needs to approve our department’s courses. Is that the same for all departments/College of Engineering?
 - 1. Graduate Education: ADUE is the department that online courses need to go through.
 - 2. BIOMEDE: Fill out a form from the Dean’s office, but the form has since gone away. You do need approval; seems to me the university wants the students on campus and interacting in person instead of a student completing the course whenever they want and having distractions therefore not fully paying attention/giving 100% effort. Students love this course, ENGR 101/110, but is a course that you need to be there for, and a remote option wouldn’t be the same.
 - b. CLIMATE & SPACE: The course contains weekly discussion and a 1-hour engagement of Office Hours for one of the 15 modules. Each module takes 45 or so minutes, which adds up to the contact hours needed and is engagement. With the policy, saying 50 hours and a student goes and completes whenever they choose, isn’t adding up to the weekly contact hours if a student is to do all course work in one sitting.
 - c. ENGR: Credit hour = some sort of engagement. Not a problem with zero engagement. If we can provide an engagement component or examples, then this is something that can be moved forward, i.e., Office hours, the discussions. If we can define that and how much can contribute to contact hours, that is what is needed for this course.
 - d. EECS: Federal definition of engagement with a course instructor. What this course is doing, qualifies under this definition. As long as hybrid or online requires approval from one of the assistant deans, then there should be no issue. Office hours or Piazza should not count towards contact hours, but rather required interactive modules.
 - e. MECHENG: Piazza and office hours could be using hours, but what is performed during those activities is what should be focused on.
 - f. EECS: Led by an instructor. Office hours should not count towards contact/credit hours if this is a student spending an hour doing homework while the instructor is present. The instructor needs to be interactive and making engagement.
 - g. MECHENG: Academic lead or faculty member should say that.
 - h. NAVARCH: In Person, Lectures, online discussion (this should exclude email exchanges) should count towards contact hours. There is no real time interaction with the instructor via online.
 - i. Graduate Education: Flip classroom model. Have students watch videos ahead of time and come to class with questions as this follow up should count towards contact hours. Digital co-existence between instructor and student, such as within the same zoom can count more versus answering individual student inquires through email and/or Piazza.
 - j. NAVARCH: Specific time set aside to ask questions, but that is referred to as office hours.
 - k. CHE: Office hours aren’t specified as a mandatory for students to attend versus other courses that do make this a requirement.
 - i. IOE: Agreed as our department also has courses that make office hours a course requirement.
 - ii. CLIMATE & SPACE: Keep in mind that ENGR 101/110 does require that 1 of the 15 modules as a mandatory office hour session to be attended by the student.
 - iii. That’s the exception. Syllabus doesn’t make office hours required/mandatory.
 - l. 1 lecture hour with the professor, 2 hours independent study = 1 credit hours. Still a blurred boundary to defining credit hours.

- m. Graduate Student Representative: A lot of classes just have the videos uploaded to Canvas and don't make the lecture mandatory, even though this is a contact hour. This should also be considered.
- i. MECHENG: ENGR 101/110 has material created by the instructor and is a difference. Faculty led material should be consider as contact hours.
 - ii. EECS: Students don't attend lectures if they are not required to. Some courses have 30% attendance for their lectures. Recordings are offered to students that do not attend lecture; therefore, a student is not required to attend and can complete later on their own time.
 - iii. MECHENG: If I refuse to do this and provide recordings, then there will be pushback and the feedback will show from students. I don't think we can fix this issue and need to revert the policy.
 - iv. CHE: It is up to the student when to complete the lecture. So, how do we define any contact hours? I.e., 2 students attending lecture when there are over 100 students registered for the course. Does this truly still count for a contact hour for those that attend lecture as it is not the entire class roster attending?
 - v. NAVARCH: How many hours is the instructor offering as the effort to prepare the material for the entire course should also be counted towards office hours.
- n. Members are to email Xiaogan with any feedback on the policy and discussions will continue at the next meeting on 1.30.2024.

PAGE	SUBJECT	COURSE #	ACTION	SUMMARY	EFFECTIVE TERM	MIN. GRADE REQ. FOR ENF. PREPREQ	Is Course on LSA Course Guide?	APPROVED	NOTES & REVISIONS	TABLED
14	BIOMEDE	211	MOD	Change in Enforced Prerequisite and Contact Hours for HLC Audit.	FT 2024	C-	YES	CONDITIONALLY APPROVED	Change the Course Components and Contact Hours.	
17	BIOMEDE	221	MOD	Change in Full Term Credit Hours, Course Credit Type, and Enforced Prerequisites	FT 2024	C-	YES	CONDITIONALLY APPROVED	Change the Course Components and Contact Hours.	
20	CSE	585	NEW		FT 2024	C	NO	APPROVED		
39	EECS	388	MOD	Change in Course Description and Advisory Prerequisite.	FT 2024	C	YES	APPROVED		
42	EECS	491	MOD	Change in Course Description and Enforced Prerequisite.	FT 2024	C	YES	CONDITIONALLY APPROVED	Change to Course Description	
45	ENGR	161	NEW		FT 2024	NO	NO	CONDITIONALLY APPROVED	Change to Course Description and Credit Exclusion.	
56	MECHENG	305	MOD	Change in Advisory and Enforced Prerequisites.	FT 2024	NO	YES	CONDITIONALLY APPROVED	Change to Course Description.	