

Education Meeting Minutes Friday, November 30th, 2018

The meeting was convened at approximately 3:00 pm.

1. Proposal to CMSC131X: Dr. Michael Hicks started the meeting. This proposal and outline were sent via email ahead of the meeting.

- Many students come in with CS background but are not prepared enough to receive credit for our introductory course, CMSC131
 - For example, they make take our exemption exam and receive a 70, where a passing grade is 80.

There are two problems with the current state of affairs: firstly the partially prepared students described above are not challenged in the first courses. It's been observed that some students get the wrong impression from the first half of the course, which is easy, and then struggle during the second half because they've developed bad habits like not attending lectures or allocating little time to projects and exam preparation.

Secondly, partially- prepared students may confound the ability of the CMSC131 instructors to teach effectively because they widen the range of student backgrounds. In particular, CMSC131 is designed with the assumption that students have no background, but in practice, it ends up proceeding faster than it should because so many students in the class have seen the material before and quickly absorb it. The students falling behind are not the majority, and so the instructor may be less aware of them, and in the end, these students with less/no background often feel under constant pressure, perform more poorly, and may drop the course and/or the major.

The proposed solution is to offer a version of CMSC131 that is just the second part of the course for the aforementioned students who have the background in programming. Students who have passed the first half of our exemption exam or earned a 4 on the CS AP test may sign up for the course. Another gateway for the course might be through articulation agreements with certain community college classes that are not rigorous enough to replace all of CMSC131 but could replace the first half of it.

CMSC131X serves as a substitute for CMSC131 in the major prerequisite and graduation requirements. CMSC131X could be offered in parallel with CMSC131 during the second half of the semester or it could be offered both 1st half and 2 half of the semester to get more students through depending on demand. Alternatively, it could be offered as a full semester course for the wholes of the semester just meeting half as often.

One challenge to this proposal is changing the culture surrounding exemption exams to avoid students

taking the proposed course for “an easy A.” Mike proposes that all students who are incoming to the major take an exemption exam, similar to how the Math Department has all students take the math placement exam. Based on the course content of CMSC131 and CMSC132, the exemption exam that is in place now will have to be altered into sections to properly identify students who would make good candidates for CMSC131X. In tandem with the exemption exams, Larry Herman proposed that students be assessed similar to students who wish to take a language course at the University. Restrictions at the course level would be introduced based on exam score (and other factors to be later determined) that would limit who could register for CMSC131X.

Administratively scaling up the exemption exam to ~1000 students, poses a challenge in that, exemption exams will need to be altered and administered online and we would have to create a large test bank of questions, more multiple choice options, etc. that would create different exams between students to mitigate any attempt at academic dishonesty amongst students.

For the purposes of these notes, the course is referred to as CMSC131X however, moving forward, the course will not be able to be scheduled, or proposed, as CMSC131X. Alyssa points towards scheduling guidelines set forth by the University. Having a different course number will allow the department to address concerns from Larry Herman and others about eligibility for the course, course restrictions, and the course description.

Due to the aforementioned challenges, the department will continue to work on this proposal and bring it to vote at a later meeting; rather than vote on the course itself, there was a motion to vote for CMSC131X in principle.

56 yes, 0 no, 1 abstained.

2. New Robotics Minor: Presented by Assistant Professor Axel Krieger, Ph.D.

To be jointly administered by ECE, MechE, AeroE, and CMSC. Steps to create the minor include:

1. To decide in Committee on proposed structure, size, curriculum
2. Receive feedback and buy-in from undergraduate studies directors
3. Write pre-proposal
4. Receive feedback and buy-in from Department Chairs and Dean’s Office
5. Submit formal proposal

The proposed start date for the minor is Fall 2019. Motivations to create the minor include job readiness, fun, and interdisciplinary learning for students, as well as a means to attract outstanding STEM students and increase competition.

The intended name will either be “Robotics minor” or “Robotics and Autonomous Systems Minor.” On 6/28/18, the committee voted anonymously for the name Robotics and Autonomous Systems

Minor. The minor is to be interdisciplinary open to MechE, Aero, CS, and EE. Axel previously spoke with the BioE chair, who declined. Axel has not yet received a response from the chair of Kinesiology.

The minor would be housed in MechE with support from the MRC and would be a limited enrollment program with competitive selection using department quotas. The proposal is to assign each department a fixed number of students to be admitted, a number based on the size of the overall population, and a number that can be determined at the entire committee's discretion. The currently favored approach is 40% of the students in a given cohort are divided evenly among the four departments; 50% are divided proportionally, and the last 10% are under the full committee's discretion. Based on recent enrollment data, this breakdown would be (for 50 students):

MechE: 10

Aero: 7

ECE: 10

CS: 17

Committee Discretion: 5

Questions around the difficulty and nature of the proposed coursework arose; faculty repeatedly stated that there is a dangerous chance of new classes just serving as watered down versions of courses that currently exist. Undergraduate and graduate level coursework was considered in conversation. Accessibility was addressed, and Mike asked if CS students would be allowed to take minor courses if they weren't in the minor. Axel stated they would. Ming then addressed a concern with hiring teaching assistants for these courses. She stated that the small size is a concern and may not justify additional teaching assistants to the payroll.

Mike suggested that we voted on support/vs. Non-support for participating with the minor and revisiting the proposal once more details were solidified. No official vote was recorded.

Meeting ended at approximately 4:00pm.