

UGSC discussion item: Effect of proposed contact hour rule

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Proposed rule change to count any 50-minutes' contact as 1 credit hour

Aubrey Hall has stated (to my understanding) that for all courses, 50 minutes of contact should equal 1 credit hour, whether the contact is lecture, lab, recitation, or "other." I have notified Aubrey in case he would like to correct my understanding of his position. I also understand the following positions Aubrey and Chris White are taking:

- There needs to be a document defining the different deliveries of instruction and the calculation of credit hours based on contact hours for each delivery.
- They will probably start with collecting the information from each academic dean.
- They will develop a standard document/policy.

We believe that Applied Math would not be the only department adversely affected by the proposed rule.

Impact on Applied Mathematics courses

The following would be the impact of the uniform 50-minutes' contact equals 1 credit hour on Applied Math courses, assuming that the credit hours for the courses stays the same and contact hours are reduced. For 6 courses -- Math 119, 122, 151, 152, 251, 252 -- we believe learning outcomes would be degraded either by students having less mastery of the material (for 119, 122), or by a combination of less mastery and/or reduction in topics (for 151, 152, 251, 252). Here are the specifics:

- Math 119, 122 (3-1-3): These have 3 75-minute contacts. 2 are for lecture (3 x 50 minutes total), and 1 is for recitation/workshop (1.5 x 50 minutes). The recitation/workshop is directed group work, and was added recently, resulting in significant improvement in learning outcomes, notably for architecture students. Applying the proposed rule would eliminate the recitation, presumably reverting to the previous, worse, learning outcomes.
- Math 151, 152 (4-1-5): Calc I and Calc 2, The two mainline calculus courses with labs. There are 4 75-minute contacts. 3 are for lecture (4.5 x 50 minutes), and 1 is for lab (1.5 x 50 minutes). The lab is in Mathematica and requires a lab report. Students who skip 151 via AP or transfer credit take longer on the labs in Math 152, but otherwise in most cases the lab reports do not take a lot of time outside of class. Applying the proposed rule would require reducing lectures and/or labs by 50 minutes. It is a challenge to get through

all topics already, and we could expect lower learning outcomes if lecture time is reduced, mostly leaving a decision on whether it is reasonable to cut lab time.

- Math 251, 252 (4-0-4): Differential Equations and Multivariable/Vector Calculus, The two mainline calculus courses without labs. There are 3 75-minute contacts, all for lecture (4.5 x 50 minutes). Applying the proposed rule would require reducing an average of 8 1/3 minutes from each class. This may not seem like much, but these courses are packed with challenging topics, and either learning outcomes or topic coverage would likely suffer.

Position of Applied Mathematics on proposed rule

The position of Applied Mathematics is as follows:

- Overall, we wish to keep the current contact hours in order to maintain learning outcomes and coverage of material.
- If that is not allowed, we would request that recitation/workshop and lab contact time be counted less for credit hours than lecture time, so that we could better preserve current learning outcomes and topic coverage.
- If neither of the above is allowed, we would need to begin a serious conversation with all stakeholders about how to simultaneously meet the 50-minutes' contact per credit hour rule, sufficiently preserve learning outcomes and topic coverage needed by stakeholder follow-on courses, and meet accreditation standards.