Thank you for allowing the Undergraduate Council the opportunity to comment on the Proposed Revisions to Senate Regulation 424.A.3 (Area D). Members of the Undergraduate Council discussed these proposed changes at the October 27, 2017 meeting of the Undergraduate Council. Our members had a thorough discussion of the proposal. While our members were generally supportive of increasing the amount of science course work required for UC eligibility, the Council would need to receive more information before it could formally endorse the proposal.

1. **Timeline and Equity**

While 95% of students who apply to the UC system already complete 3 units of science, 60% of the 5% of students who do not are underrepresented minorities. Given the intersectionality of race and socioeconomic status in the United States, it seems likely that these underrepresented students hail from underserved schools that do not currently offer 3 units of science education. While expanding the current Area D requirement to 3 units may compel some schools to invest more resources in science education, is it prudent to change the requirement before these schools have had a chance to expand their course offerings so that their students will be able to satisfy the requirement? The proposal also does not include any specific information about when the proposed regulation, if approved, would go into effect. Has Academic Council considered approving the change, but delaying the effective date? This would provide all schools with the opportunity to create an infrastructure that would ensure their students have the resources to become UC eligible.

2. **Removal of the Term Laboratory**

Some members of the Council expressed concern over the removal of the word laboratory from the Area D requirement. While it is not necessary that every course should have traditional bench laboratory activities, each class should require evidence-based learning activities where students make observations by gathering data themselves in order to arrive at reproducible conclusions through systematic inquiry. The term laboratory science, as defined in the proposal, seems to be narrowly understood. Rather than removing the term laboratory, it would perhaps be more productive to expand the term to include a wide variety of academic
disciplines and field environments where students actively engage with peers and instructors to formulate hypotheses and gather evidence to test those hypotheses. It should be made clear in this definition that laboratory work does not just occur at a bench. Furthermore, schools need to be encouraged to create active learning environments, and the removal of the term laboratory and allowing hybrid and fully online courses to satisfy this requirement seems to be a step backwards in this effort. How can an instructor adequately supervise hands-on laboratories when the course employs an asynchronous, fully online course environment? Such an environment makes it challenging not only to educate students, but also to maintain classroom safety.

It was also noted by some members that the inclusion of online learning was ‘snuck into’ this proposal. Nowhere does the proposal or cover letter include a rationale of why online courses should be used to satisfy the Area D requirement. Instead, the argument seems to be that it should be expanded to include online simply because online Area D courses exist—with no critical examination as to the effectiveness of these courses.

3. **Impact**

While the proposal indicates that 95% of students applying the UC system currently complete 3 units of science, it would be useful to see campus specific data. How would this policy impact student matriculation to each campus? Going back for the past 5-years, how many students were admitted (and to which campuses) that would not have been eligible under the new regulation? Have those students been shown to be significantly less prepared than students who did complete 3 units?

4. **Assessment**

The proposal does not include any specific plans to assess the impact of the regulation change, if it should be approved. It would profit UCOP to create an assessment plan to analyze the effects of this change if/when it becomes effective. Again, it would be useful to see not only how this impacts the UC system, but also each individual campus.

Thank you again for the opportunity to comment on these proposed changes. If you have any questions or concerns, please do not hesitate to contact me or Eric Wells, the Undergraduate Council Analyst.

Sincerely,

Beth Lazazzera
Chair, Undergraduate Council

CC: Linda Mohr, Academic Senate CAO
    Eric Wells, Undergraduate Council Analyst