Science and Math Liaison Meeting Notes

March 7, 2017

Present: Steven Bogaerts, Mary Kertzman, Pam Propsom, Jackie Roberts, Fred Soster, Brian Wright (joined the group after IUSE Curricular Reform Awards were reviewed)

Review IUSE Curricular Reform Award proposals

Pascal Lafontante: Bio 190 (Topics: Exploring Regeneration Biology)--approved

Melissa Petreaca: Bio 190 (Topics: Inflammation and Health)--approved

Dan Rusu: Math 145 (Calculus for Life Sciences) & Math 146 (Mathematical Modeling for Life Sciences)—follow up with Math Dept (can it be offered in his time at DePauw? No problem with his proposal; glad to have it)

Brian Wright & Tom Ball: Kines 255& 256 (Anatomy & Physiology I & II)--approved

Add to proposal form—have you discussed this with department and department chair to make sure course can be offered, coordinated with other interested departments?

SM General Education Revisions

Follow-up on Divisional Meeting on student-faculty research. How do we create a “research-rich environment” for all students? When we sent the email to the division about our upcoming division-meeting, one faculty member wrote indicating that they thought that adding a lab requirement would NOT be a good idea and that students CAN learn about science without actually doing science. The division doesn’t have to be of one-mind if we propose a new SM gen ed requirement, but it would be good to get the pulse of SM faculty before we move forward with the faculty at large.

Jackie shared some data about patterns of majors in each SM department. There has been a decline in many departments (although sophomores haven’t had to declare yet). Some concerns that the impression might be that DePauw is a “writing school” and not a science/math school, and the info on the writing requirement dominates other info on departmental webpages. Is this an issue with how Admissions is selling DePauw? Are we not “telling our story” well? Is it that the prospective student population is changing? Is it that our intro classes are not interesting and we’re turning students off?

What courses are students taking to meet their SM requirement? Are they taking Logic or Human Origins and missing out on intro SM courses? Geo gets a ton of students taking their intro courses to meet their SM requirement, but that’s because they got rid of the lab.

Brian said that Admissions has lots of info and perhaps we could ask them about student interest. Another person reported that they saw some of our Admissions materials and were disappointed that it didn’t identify all of the majors available, including SM individual majors. But this may have changed with a new university presidency. How can we make it easier for Admissions to highlight science and math?

Some discussion about “blowing up” gen ed.

Frustration that we talk and talk, but that’s because we’re trying to build consensus before we move forward with a proposal. We have data to indicate that our students aren’t exploring, avoiding SM.

How do we market DePauw, make it unique? Is a “research-rich environment” something that would resonate with our colleagues in SM and our colleagues across the institution? There’s lots of different ways this “research-rich environment” could be implemented, and different departments could manifest this differently (e.g., course labs, summer research). How do we handle the student demand? Can’t, if it just means student-faculty summer research. What about using Winter Term more effectively?

Not all labs have to be the same; might mean different things for different departments.

Ask each department what a “research-rich environment” means and how they contribute to it. Jackie and Pam are working to gather data from Valerie, Corinne, Kate Knaul about funding pockets out there, and will coordinate with departments to find out what research means to them. Does it describe the department and do/would they want it to describe them?

Does the term “research-rich environment” exclude some departments? What do we mean by “research”? Is it “learning by doing?” If we can’t come up with a commonality for the division, then maybe we shouldn’t be together as a gen ed requirement. Where might the most disagreements or differences lie between departments? Do CS and Math go with the other sciences or are they a different way of knowing? Steve thinks CS fits with sciences more than any other divisions, but still might not be a good fit.

If SRF has run its course, what would replace it?

Summer Workshop with Melanie Cooper, Chemist at Michigan State University

To see a brief description of Dr. Cooper’s work--

<http://msutoday.msu.edu/news/2015/msu-scholars-challenge-colleges-to-reform-stem-learning/>

Tuesday, June 27-Thursday, June 29