Science and Math Liaison Meeting Notes

Sept. 23, 2016

Present: Dana Dudle, Mary Kertzman, Pam Propsom, Jackie Roberts, Maria Schwartzman, Fred Soster, Brian Wright

Departmental responses to IUSE grant.

Chemistry. Jackie said people from Chemistry were interested in revising Intro courses, maybe Chem 120 one year and Chem 130 another year.

Physics and Astronomy. Mary reported that she, Jim Mills, and Rich Martoglio are still interested in proposing an interdisciplinary “Elements” course, but probably not this summer and instead next summer. John Caraher has been thinking about an energy course, maybe related to Environmental Fellows (this could also link to HHMI with regard to “more genuine research” component). Jacob Hale will be doing Paradigm Shifts in the spring.

Geoscience. Fred asked if one has to actually be proposing a course revision to participate in the workshop, and we said no; we would like to encourage everyone who wants to participate to be able to attend. Some people just want to do the workshop. They have been wanting to look at the Geo 110 course and this might be an opportunity to do so, but thought $500 for course design was low compared to $1250 for course revision or $2500 for developing a new course. We could have two tiers in HHMI grants. No one from Geos will be applying for things this summer; they’ll need more lead-time.

Biology. Dana said that Bio has recently redone 101 and 102 so they probably wouldn’t do their intro courses, but they do have a topics course (190) that might generate some interest.

Psychology. Pam reported that there are a number of people in the psychology department who are interested in revising Intro Psych to add a lab.

Kineseology. Brian is already doing some of these things in the Intro course, and he and Matt would like to continue to do more.

Computer Science. Very interested in participating, but still exploring ways that they could do so. Gloria has written a proposal for a CS0 course (.5 credit, may not count towards a major), a bridge course from no experience with CS to the intro course. This could work with HHMI too. Maria asked if these monies could be used for a Winter Term or May Term course; we seemed to think it would work, given that it’s a for-credit course.

Faculty-student summer research. This was another topic that arose during our discussion. There are some concerns that faculty were “docked” pay for taking any time away from their research students this summer. The sentiment was that this us nitpicky and faculty should be able to take time off to attend a DePauw workshop or one elsewhere. This is a larger issue for discussion with VPAA, who already has indicated that she thinks it’s unfair that only scientists (and not faculty in other curricular areas) have an Appendix B expectation that they do research with students. Pay for sponsoring summer research students has not been raised since at least 1999, and perhaps that’s one reason why it’s been more and more challenging to find faculty to sponsor summer research students. Do we need a Brown Bag Bitch Session? Maybe the topic could be “What are the roadblocks to doing summer research with students? Administration wants more student research but faculty are aging out and don’t have to do it or faculty get burned out. How do we sustain this?” Do we need rotations? Allow vacations? More flexibility with our time and the money. More funding for materials. Critical mass of students in a department so that students have a cohort, break up the routine and loneliness for students. Use this to brainstorm so that we can approach the administration with some suggestions for solutions. Departments could co-host speakers during the summer. Indiana Academy of Science (IAS) grants.

The SM liaison group is going to be the deciding body for the Curricular Reform Awards. May need to revise the form or criteria after our experience with the first award.

HHMI

Biology—onboard with the Guides and more genuine research experiences in classes. Add Sara Lee and Melissa Petreaca to names on Hughes grant.

Physics—Jacob Hale is willing to put his name on HHMI list (check with him on particulars). The department did talk about potentially restructuring the Intro Physics course. Could include money for equipment and supplies (although there is limited funding available).

SM gen ed requirement

Curriculum Committee didn’t seem that interested in working on a proposal for gen ed revision. Fred suggested that we reach out to faculty in the other curricular areas about each area having a three course requirement. Others suggested that maybe we start small by trying to get the lab requirement back in the SM requirement. Will need to define what we mean by a “lab.” Do we need a separate requirement for computational/mathematical reasoning? What happens to Q? Do remedial courses really work? Maybe instead of Univ 101 we have “just in time” math/quantitative modules that we stick into courses when necessary, Q tutors could be linked to specific disciplines or courses.

Wilkerson has a new pillar model, but Geo is not willing to stick out their collective necks again given the response last time.