Science and Math Chairs and Departmental Liaisons

Meeting Notes

1/27/15

Present: Pat Babington, Lynn Bedard, John Caraher, Bridget Gourley, Jeff Hansen, Matt Hertenstein, Nachimuthu Manickam, Jeane Pope, Pam Propsom, Jackie Roberts, Michael Roberts, Naima Shifa, Fred Soster, Brian Wright

Pam reviewed the steps she and Jackie have taken thus far—conducted a survey of DePauw’s Science and Math (SM) faculty, held four open division meetings, established a working group with liaisons from each SM dept, discussion at an October meeting of all university department chairs.

John Caraher described what’s happening on CAPP. During the discussion of adding a diversity requirement they have also talked about re-examining general education requirements. The idea that has gained the most traction is previous “Six Experience” proposal (which is a lot more prescribed than our current gen ed requirement; has separate natural science and math requirements). CAPP will have open forums to discuss and probably send a request to each department asking how it will contribute to the requirements. President Casey is in favor of a lab requirement.

Matt—most universities wait a decade to change gen ed requirements; what is the rationale for our doing it after only five or so years? Do we have any data? John—when we adopted the new requirements we said we would re-examine them after a few years. We don’t have much data besides enrollment patterns. Jackie shared that David Harvey had compiled data in 2009 showing that SM majors were taking fewer courses outside science and math than majors in other divisions. During the many discussions we’ve had, the division did agree on using the two overarching goals from the TOSLS as a starting point for SM division learning goals.

Jeff asked where we’re at with the “Big Ideas” course. Michael is meeting with Larry this afternoon. If it goes well we’ll be set with a pilot course sometime next year. May or may not have a lab. Two sections with five faculty rotating through the course.

Labs—one issue is amount of credit that students get for lab (why would students take a lab course with perhaps 6 required hours of meeting when he or she can get the same credit taking a 3 hour course?).

Jeane—could current catalog language be tweaked to incorporate learning goals? What is the purpose of lab and what constitutes a lab, and what are our learning goals for lab?

Pam asked if we could get a straw vote from chairs: Are they onboard with having common learning goals for SM gen ed courses? The majority were in favor.

Bridget suggested backward design: what we first need to do is decide what the SM goals are and then design (or redesign) the course(s) to do this.

John—from CAPP’s perspective, it would be really helpful to articulate what we want our students to get from their DePauw education. If we don’t have the resources to accomplish our desired learning goals, then this might help give RAS direction in allocating resources where the needs are. These decisions would have implications for RAS, approval for courses, how we teach our courses (content vs. process vs. skills). Jeane—content is necessary, but insufficient. Content vs. skills/methodology is a false dichotomy. Pam—obviously you still have to address disciplinary content. We’re not proposing some generic “science skills course,” but suggesting that departments teach their disciplinary content with these skills in mind.

Fred—this might meet with a lot of resistance; people have already worked hard at developing their courses and don’t want to throw out the products of their previous time and effort. Having the time to do this will be a challenge. Jeane—linking this to High Impact Practices.

Next step—If chairs think developing shared SM gen ed learning goals is a good idea, how do we go about doing that? Using liaisons? Chairs doing this? Jackie proposed having the working group work on this, communicating with departments, and then maybe getting together again with a proposal by the end of the semester. People seemed to agree with this.

John will unearth the “Six Experiences” proposal and share that. Even if the division just talks about the reason for having a lab requirement, that would be helpful. In addition, where do math and computer science (which may be more mathematically and less science-based), and psychology (which currently doesn’t have a lab) fall?

Jeff—rather than focusing on whether we need a lab or not, instead focus on “do we have courses that focus on the process of science?” The latter could be addressed in either a lab or a non-lab course.

Naima—even though a lab isn’t really possible in math, their department embraces some of the same goals (e.g., critical thinking).

After the meeting a couple of other ideas came up

Pat—Could we have OIR do an analysis by major (e.g., history; non SM) to see how many and what SM courses they took?

Brian—could we have lab courses that aren’t as demanding time-wise for non-majors (e.g., a one or two hour lab)?