Working Group meeting with Bert Holmes (4/25/14)

Interdisciplinary ideas are big, students don’t have enough chance to experience this, especially early in their career. He likes the “Big Ideas” approach. He thinks it could be pitched to IUSE.

Need the educational theory supporting this type of course and related grant proposal; for example, “scientific ways of knowing,” “constructivism,” “creating self-determined learners,” “facilitating transfer of skills.”

Could do it as a “flipped classroom,” make videos, make these available to faculty at other institutions. He has data that it’s worked well for their freshmen. But for it to work, have to give them a quiz every day to make sure they’ve watched the preparatory video, quiz has to be worth enough that it’s meaningful.

Thinks we need to consider whether science majors will be turned off if the “Big Ideas” course doesn’t count for their major.

Need a good assessment person/education specialist/external evaluator. Measure both students’ knowledge and affective responses. Need to get this person right away, they can help shape the project. Marcy Towns at Purdue. Gabriella Weaver there too. All the folks at Boulder.

Thinks we need a steering committee half the size of this group to write the grant. Maybe 5 people and divide up sections/responsibilities.

Macalester College did something like this “Big Ideas” course in Bio and Chem, but when the leaders died/retired, it fell apart.

How sustainable and how transportable will it be? Should be able to show that it would be attractive to other institutions. If it’s just about DePauw, it will be less attractive to NSF.

Teaching postdocs. Could help keep the research program going or if science educators, help us revise our courses.