Meeting notes for integrated science course, or science foundations course Tuesday, May 13, 2008

Meeting convened at 3:35 and ended at 5:00

Members Present; Chris Baldwin, Brian Loft, Solomon Schneider, Marcus Gillespie, Matt Rowe, Dough Constance, Bobby Lane: Guest – Joan Maier

- 1. Marcus received word that it appears the Chemistry and Physics departments will make their own course, but will still be part of the QEP. In effect, there will be two main course models designed with the purpose of meeting the requirements of the Learning Initiative.
- 2. A science core curriculum assessment is now mandated by SACS and an instrument has been prepared and approved. The purpose of the assessment is to determine if the introductory science courses are meeting the science objectives as required by the THECB. The assessment survey was given during final exams in the introductory science courses and it consists of questions that pertain to the nature of science. Some of the questions were based on concepts in the EBAPS assessment instrument and may, therefore, be useful in supporting the need for the course we are developing.
- 3. The point was made that, when various instructors fill out IDEA forms, they must choose the same course objectives.
- 4. Team teaching ideas from Joan
  - a. Have course coordinators who make sure the course runs well, interacting with all of the faculty who are instructing. Coordinators are responsible for integrating the content, bringing it all together. Do some teaching themselves.
  - b. Suggested extra pay or release time for faculty who give a few lectures in the course.
  - c. Discussed the jigsaw cooperative model in which students are placed into teams, and each team member becomes an expert in one area. Students who are all assigned the same expertise get together and educate each other, then the teams reassemble and each expert brings their knowledge to bear on a topic.
  - d. All of the courses may need a program director. Otherwise, course may fragment among departments, and/or instructor variation may be too large.
  - e. Need some strands, themes, and big questions that bring the course together. This is necessary to avoid fragmentation of the content modules. Must keep strands in mind when modules are developed.
  - f. May want to use problem-based learning in which students generate/identify the problems and determine how to solve them. Instead of students simply being

- given a lot of facts, they must learn to find answers in a manner that models evidence-based decision making.
- g. Need to start the course with experiences that motivate the students, such as problems, issues, big challenges, etc. For example, present a problem in the lab, and then give relevant lectures and readings to equip them to solve the problem.
- 5. As we await the decision from the SACS representative regarding the possibility of having individually taught sections of the course, and while we await details regarding the Chemistry/Physics approach to the development of the course, Marcus asked that we begin the process of deciding what modules/topics that we would like incorporate into the syllabus and course. Accordingly, each department will begin selecting the topics that each believes is essential to the course. So, we should review the original syllabus proposal, the list of topics, and the list of critical thinking skills, and use these as a point of reference for selecting and developing individual topics. The committee is not bound by the original topics listed or the specific syllabus headings. These serve only as a point of reference. The consensus seems to be that extraordinary, pseudoscientific, and standard scientific claims will be covered in the course, but the mix has yet to be determined.
- 6. Our next meeting will be either toward the end of June or early July, when the second summer term begins.