What are the strengths of your area?: The Physical Science 20 course counts as a General Education requirement and/or a science class with a laboratory component for those majors requiring it. It is a transferable course which is typically completed by students as they prepare to transfer out of COS to a four year university. This course is open to all majors on campus ranging from Liberal arts to Science and Engineering. Enrollments in this course have traditionally been very high and its success rate has been well within an acceptable range. In fact, this course showed a success rate of 90% in the 2011-2012 academic year. This course shares the Physics/Engineering budget and occasionally benefits from the PASEO grant which have lead to the improvement of this course by providing better opportunities for learning. For example, This course offers a laboratory component during which students learn how to build telescopes, explore gravitational acceleration of the Earth, speed of sound, etc. This has had a positive impact on the enrollment and success of this course.

What improvements are needed?: The Physical Science 20 course could definitely benefit from having a budget allocated directly to it. The topics covered in this course are not necessarily the same as those covered in Physics and Engineering courses. Designating a budget for this course will prevent it from being a burden on Physics/Engineering resources. By developing a specific budget for this course, the instructor can better plan the purchase of suitable equipment in order to address the needs of this very diverse course.

Describe any external opportunities or challenges.: This course covers selected topics in Physics, Chemistry, Geology, and Astronomy. The overlapping topics of Physical Science 20 not only allow our students to better decide on a field of study, but also prepare them for a wide range of educational and professional opportunities. It is imperative that the instructor of this course stays current with all the new developments in the physical sciences; attending professional conferences could be of great significance in delivering the topics of this course, and consequently improving the success of our students.

Overall Outcome Achievement: There were three Learning Outcomes planned for this course. These were assessed and an overall success of 67% was reached. The plan was for about 70% success, so more time will be allowed for those topics both in the lectures and during laboratory sessions to further improve these outcomes.

Changes based on outcome achievement: Two out of the three outcomes planned, showed a higher success rate. The lesson plans are already altered to allow more time for both discussion and problem solving in lectures. I will also add some components to a couple of my laboratory procedures to further improve outcome achievements.

Outcome cycle evaluation: There is no need to modify the existing schedule for making assessments since it allows for regular monitoring of all outcomes.

Action: Budget for Physical Science

Provide a budget for Physical Science 20. I plan on discussing the needs of this course with our Division Chair, and the Department Dean in hopes of coming to an agreement on an adequate amount to provide equipment and supplies.

Start Date: 12/08/2014
Completion Date: 05/15/2015
Status: New Action

Identify related course/program outcomes:

Person(s) Responsible (Name Jesse Wilcoxson, Robert Urtecho and Position):

Rationale (With supporting data): There is currently no budget for this course even though there are many expenses for a course which meets for 3 hours of lecture, and 3 hours of laboratory every week.

Priority: Medium
Safety Issue: No
External Mandate: No