Throughout the EPR process Physics, and presumably other programs, discovered many errors and problems with the way we were reviewed. While individual errors might be construed as simple mistakes and explained away, we believe that the large number of these problems indicates a pattern of deceit on the part of the administration to do what they want without the appearance of impropriety.

1 Expedited Program Review

Physics was given its own CIP code for majors in 2006. Each program is allowed a 5-year period in which to prove themselves as a viable and crucial program to the University. The most recent program review was completed in 2007, one year after the program gained its CIP code. The program was then put under Expedited Program Review, primarily for not satisfying the 150% of the number of graduates SCHEV states is “viable.” Regardless of the fact that the Committee used a binary ranking for this guideline (5 points if you made it, 0 if you didn’t), we feel there were many mistakes in putting us into this category:

- In the second public forum, it was stated that physics received a 7 on the scoring of these viability guidelines and that 8 was the value needed to be counted as viable. This is false as physics received a 4. This gave the attendees the impression that physics just missed being viable and were not in trouble as a major.

- Of those points that we missed, 5 were from the number of graduates. It is obvious that we do not meet the new guidelines put in place this previous summer of 9, but we had been satisfying the guideline of 8 up to that time. In addition, the national average for institutions which only offer Bachelor’s degrees in Physics is currently 5.2 graduates per program based on the American Institute of Physics data referenced below. RU’s Physics program clearly exceeds this number.

- They gave us no points for job prospects when this is incorrect and the Bureau of Labor Statistics, which they claim to have used, predicts for 2006-2016 a 6.8% growth for “physicists.” This classification represents primarily faculty positions and doesn’t include the jobs our students actually get in areas such as teaching, environmental engineering, and work at national laboratories. A large fraction of our graduates go to graduate school as well in preparation for professional positions in research and academia. The American Institute of Physics shows the employment statistics for Bachelor’s classes from 2005 and 2006 (the most recent data available) and the fields their jobs are classified in here:


  They also have a partial list showing who in the Commonwealth is hiring physics majors here:


  You can find the information from the Bureau of Labor Statistics at

  http://www.bls.gov/emp/emptabapp.htm

Physics majors, both nationally and locally, are very versatile and work in a large number of STEM fields. If the APRC was not able to find this information, the program would have been pleased to provide the information and additional comments concerning the employment and schooling of recent graduates.

- During the EPR, the APRC seemed to discount second majors as compared to first majors. We argue that those majors should count equally and SCHEV agrees. In SCHEV’s own document in section V. B. it explicitly states:

  “In the case of double majors, enrollments and graduates may be counted in both programs.”

The document can be found at:

  http://www.schev.edu/AdminFaculty/ReviewPublicAcademicProg.pdf
• Members of the APRC explicitly stated that SCHEV’s visit in the fall explicitly targeted the program as being non-viable. In conversations with SCHEV, we were told that even during the last visit, we were not targeted. If SCHEV is targeting non-viable programs, then there are an additional 18 programs in the Commonwealth which do not satisfy SCHEV’s viability guideline for graduates (based on numbers from the American Institute of Physics from the 2006–2007 year - this data can be found at http://www.aip.org/statistics/trends/reports/physrost.pdf

These programs include schools such as George Mason which has a far larger faculty. Is it likely that SCHEV is targeting all of these programs in the state for elimination or restructure?

• Immediately following the Monday program review meeting, the Dean contacted the Program and told us that he was changing his recommendation from “continue” to “reconfigure continue.” As stated in the meeting, the Dean stated that his reasoning was the low number of graduates. The department currently has 6 graduates slated for the academic year. When questioned further, the Dean stated, “The data that I received about May’s graduates applications being just 5 is not a promising trend. A further analysis reveals there are 10 majors at the junior level. That’s not promising either. So I’m looking at 2 more years of downward projections.” The Dean’s comments don’t include a summer graduate. When considering next year’s graduates, he notes that there are 10 at the junior level. When these graduate, that year will satisfy the SCHEV viability guidelines. Note the use of “when.” The program loses majors at the freshman and sophomore level. Students who stay with the major until their junior year are very unlikely to change their major as they have made it through the initial difficult classes and will be able to succeed in the rest of their coursework and graduate. Again, any discussion or investigation of enrollment trends would have made this clear.

• While SCHEV has the number of graduates as a guideline, there are also other ways that a program that is not viable by that single standard, can be considered a vital part of the University. The other items which can indicate viability of a program are:

  – Number of students served which looks at the average FTE majors OR the average FTE enrollments in upper division courses - as noted in the APRC report, physics satisfied this requirement.

  – Program effectiveness which looks at the student achievement in terms of knowledge and skills, graduate school acceptance rates, or other evidence. As shown in the Expedited Program Review document, the RU physics program graduates more students with Bachelor’s degrees per faculty member than any other institution in the Commonwealth. From the 2007 Program Review, the programs at peer institutions are also less productive except for the University of Wisconsin, River Falls.

  – Budgetary considerations can be used to determine whether the program involves a significant cost to support the program. The cost data provided to the APRC shows that the majority of the programs undergoing Expedited Program Review cost more per graduate than Physics. The administration has stated repeatedly that this process is not related to the budget.

• Even if a program does not meet any of these viability standards, an institution may request that a program be exempt. In particular, if the program is central to the institution’s mission, then it can be held exempt. The Physics program is vital to the institution as the administration has said itself:

  – As noted by the administration, President Obama specifically noted that the country needs to promote and improve STEM programs and encourage more students to enter these fields.

  – As noted in the Core Curriculum in the Core B requirements and the inclusion of Physics and Astronomy.

  – As espoused in the values espoused in the 7-17 Strategic Plan which encourages the institution to bring in and graduate higher quality students. Our current graduates are in jobs working at national research laboratories, teaching physics and other sciences in schools throughout the Commonwealth, and at graduate schools such as Cornell studying physics and the University of Arizona studying astronomy at one of the very best schools for astronomy in the country to name only a few.
As stated in the 7-17 Strategic Plan to have all programs which can be accredited do so. The lack of a physics major may affect the likelihood of such accreditation. Professional programs to be developed at the institution such as Pharmacy and Physical Therapy will look weaker if the institution doesn’t have a Physics program.

- When comparing RU to any of our peer institutions, top Master’s-granting universities, or any of the other top 50 programs in the US News & World Reports college rankings, all of them except small private institutions have a physics major. The elimination or restructuring of such programs would diminish, or end, efforts to make RU a leading Masters-granting university (a centerpiece of the Strategic Plan). Current leaders among Masters-granting institutions universally offer and support such programs – eliminating them at RU is tantamount to refusing to compete with such universities.

## 2 Restructuring and What It Means

When the program was told it would be separating from Chemistry and moving into the new school, there was no talk of losing the major. The combining of the programs into the new school was decreed and we had very little input or choice in the matter. The reason given was that it was a matter of saving money by reducing the support personnel for the involved programs. At the time of the writing of this document, there has been no explicit discussion about how these programs will be combined. What we’ve been told so far is that the combined programs will be put under a single CIP code with which all new majors would graduate. When we asked, it was not clear that this is even possible and we have seen no documentation from the administration suggesting this is possible under SCHEV nor that we can even create our own CIP code. In addition, if said programs are to be combined under a single CIP code, the concentrations within that code must share 25% of the major requirements. While this would not be a significant problem with Physics and Geology, there is not a clear manner in which Geography could be combined with these two.