

DEPARTMENT OF PHYSICS
QEP ELEMENTS
March 23, 2007

I. Name up to three environmental factors that positively impact student learning at Prairie View A&M University (PVAMU) and that you believe should be celebrated and supported.

1. Mentoring and direct interaction between faculty and student learners. Many faculty know almost all their students by their first names.
2. Relatively small classes, especially at freshman level.
3. Access to equipment outside of classes, i.e. working with professors in research exposes students in a more prolonged way to the "textbook in action." They get an opportunity to interact more with the theory of class and their professor which shows more real world application and developing technology from the work.

II. Name up to three factors that negatively impact student learning at PVAMU and that you believe need urgent attention and support.

1. Financial issues: Financial aid (availability as well as timely processing). Many a time students miss classes because they spent the whole day (or days) standing in line. This also leads to delays in students' acquiring the required learning materials such as textbooks in time. Inadequate number of opportunities for apprenticeships (such as research assistantships or teaching assistantships).
2. Lack of resources and support to hire needed/essential faculty in some departments that in turn adversely affects the number and quality of courses that can be offered in these departments. These departments particularly include chemistry, mathematics and physics, which constitute the staple of the STEM areas, so necessary for the state's and nation's progress and leadership.
3. Heavy teaching loads, lack of sufficient incentives and rewards for high performing faculty and staff.

III. For each of the factors cited in item 2 above, describe the strategies you would propose to affect change and thereby improve student learning.

1. Streamline the process and appropriately staff the Financial Aid office so students do not get frustrated or disheartened. Negotiate a contract with the campus bookstore to let students have electronic access to textbooks, which is much cheaper than buying the printed material. Support and encourage research activities, especially those attracting external funding, which in turn can support students in terms of scholarships, stipends and assistantships.
2. Provide the budget to departments to hire adequate number of faculty, especially those that handle the freshman and sophomore courses. Ensure appropriate vertical integration in successive courses so that standards, as well as depth and breadth of content, are implemented.

3. Reduce teaching loads, especially in mathematics, sciences and engineering, the three areas of national need, so faculty have more time to properly prepare their students. Establish a budget that allows the departments to recognize and reward high performing faculty. Implement post-tenure review process and the recommendations properly.

IV. For each proposed strategy outlined in item III above, describe the evidence that could provide proof that student learning improved.

1. Increased student satisfaction (Student Satisfaction Surveys), increased student retention, increased number of students participating in research projects on campus, increased number of students entering research areas, applying for summer research programs, and pursuing advanced degrees.
2. Enhanced faculty performance in teaching, enhanced student satisfaction in classes (better grades). Better preparation of graduates to advanced degrees or the workforce.
3. Increase in mentoring and fund raising activities. Increased quality of faculty.