Program Summary

Summary Title: Physics: BS
Applicable Programs: 40.0801 Physics: Bachelors
Accreditation: Not Associated with an Accreditation Review.
Last Review Year: 2002
Status: APPROVED

Major Changes

1. The student strength, which had previously always been hovering around 25 majors spread out over the four years, jumped to forty, and then settled around 35.

2. More of our graduates have been admitted to graduate studies in Physics.

3. Start of new research program in Physics Education (specifically in design of computer aided teaching aids in Physics).

4. The department has submitted a large number of (more than 10) proposals to USED, NSF and FLDOE during the period 2002-2008. One proposal "Math Matters in Careers" with the award amount of $1.5 million from FLDOE, was granted.

5. One faculty member has successfully supervised undergraduate research, developed a CARS system, and expended our laser spectroscopy prospect in an effective way based upon our existing equipment.

6. Undergraduate research has progressed successfully. Notable achievement was the Best Undergraduate Research award won by the poster presented by our students, at the SPS Zone 6 meeting at the Florida Institute of Technology (2007).

7. A restructurin of some of the science departments saw a new entity, The School of Science and Engineering, emerge as a compendium of the Mathematics, Physics, Computer Science, and Electrical and Computer Engineering departments. This reorganization was done with a view to increase interdisciplinary collaboration. Indeed all the proposals submitted by the Physics department were in collaboration with other departments.

8. The department saw a gradual decrease in faculty strength. At the beginning of the current review period, the faculty strength was four full-line faculty plus one lecturer. Now it is down to two full-line faculty plus one lecturer. This reduction has resulted in the faculty teaching five courses in a semester, having to continue supervision of UG research, preparation of grant proposals, continuing their own research, and providing service for the university.

Strengths

- Excellent quality of the faculty who are strongly committed to providing their students the best education possible.
- Rigorous curriculum and includes all courses that one would expect for a Physics Major in any established physics program in the country.
- The Physics Department emphasizes undergraduate research.
- The addition of the new SSE building and the phenomenal resources associated with the building should lead to a natural increase in the number of majors associated with the SSE programs.
Weaknesses

- Low number of faculty members, leading to overworked individuals.

Recommendations

Recommendations from the Program Review Team

- Hire at least two more tenure earning faculty members. One of them could be in computational physics to broaden the scope of the program. Hiring someone in Astronomy or Astrophysics would also help attract students.
- Hire at least one full time lecturer.
- Hire one demonstrator/organizer/interpreter.
- Engage in collaborative research with other Florida institutions such as UCF.
- Participate in securing external funding for research and curriculum development once more faculty members are hired.

Additional Comments

The Academic Learning Compact for the Physics BS is available at the following URL:

http://uwf.edu/cutia/ALC/Physics_ALC.pdf

The Confirmation of Processes is available at the following URL:

http://uwf.edu/academic/datafiles/CnP_Physics.pdf