

Undergraduate Program Review  
Physics  
2007-2008

**I. Strengths**

1. The recent emphasis on nuclear and health physics should provide a needed focus to the program.
2. Efficiency of instruction is very high. The quoted cost of offering courses through the joint and collaborative programs is less than 1/10 the cost of conventional programs.
3. Support has been obtained from outside sources including grants for instruction and research infrastructure.

**II. Weaknesses**

1. The Department chair (and computational physicist) left the program recently.
2. Informal methods used for review, planning and student advising are likely to suffer when only a few full time faculty are available to carry out these functions.
3. The budget for faculty development and travel is not enough to provide opportunities to attend meetings, identify and use new techniques, interact with colleagues, etc.
4. Amounts for operating budget, teaching assistants and support staff seem low but it is not clear exactly what this includes.

**III. Recommendations**

1. Hire needed replacement faculty to continue advances in the new program areas.
2. Increase the use of the collaborative and joint programs with other institutions to provide strong programs for undergraduates. This is an opportunity to provide a wider variety and greater breadth of courses than would normally be possible in a program with only a few majors. At the same time the program must be structured so that faculty can provide personal contact and guidance to the students.

3. Faculty should obtain funded research programs (in addition to the undergraduate research grants) in the new areas. This will require increasing the number of faculty as research programs are obtained.
4. A more formal approach to review and planning of courses and program development should be provided. The informal process described in the report is satisfactory for correcting problems that arise but a more structured approach could identify and recommend improvements in areas not recognized as problems.
5. The faculty travel and operating budgets should be increased. Faculty members should have opportunities to interact with colleagues from other institutions to discuss common problems, approaches, solutions and trends.
6. The subcommittee believes the program should be recommended for *conditional continuation*.