

**Undergraduate Program Review**  
**EXECUTIVE SUMMARY**  
**2007-08**

Eight programs were slated for review during this academic year. Reports were submitted and reviewed:

1. Art
2. Chemistry
3. Geology-Physics
4. Math
5. Kinesiology
6. Community Health
7. Ag Science
8. Human Sciences

Subcommittees and external reviewers have recommended unconditional continuation for: Ag Science, Human Sciences, Chemistry, and Kinesiology. They have *recommended conditional continuation* for Art, Math, Geology/Physics and Community Health.

**1. Art**

Strengths

- 1000 & 2000 level course will have syllabi with a focus on a set of core technical competencies by Fall 2008.
- As of Fall 2007, a designated registration day was instituted. Majors required to meet with their advisor to update degree plan before registering for next term.
- Faculty moral is on an upswing.
- College goals are in place.
- Real world experience has been required for students in the program.
- Poor faculty performance is addressed when the need arises.

Weaknesses:

- No increased base funding since the 1980's! None are planned for the near future.
- Faculty shortage.
- No reward system set in place for outstanding faculty performance.
- No accreditation in place yet.
- Faculty members turn annual report every other year.

### Recommendation:

Conditional continuation. There are still too many issues outstanding from the last time they were reviewed and they need to be addressed in a more timely manner.

## **2. Chemistry**

### Strengths

- The program is fully certified by the American Chemical Society (ACS).
- The mission of the department is well stated and linked with that of the university.
- Existing faculty members are dedicated and exceptional.
- Undergraduate research is active and used as an assessment measure.
- Curriculum changes are up to date and based on needs; a biochemistry course has been developed.
- Department has received continuous funding from the Welch Foundation for 25 years.
- All current faculty members are engaged in scholarly activity and publication.
- Research and scholarly activities result in generation of external funds.

### Weaknesses

- The program needs to develop an appropriate capstone course.
- Lack of systematic advising process.
- Lack of sufficient funding for laboratory equipment/upgrade.
- Lack of travel funds limit faculty opportunities for professional development.

### Recommendations

Unconditional Continuation

## **3. Geology Physics**

### **Geology**

#### Strengths

- The development of GIS and GIS-related (e.g., remote sensing) courses and a GIS concentration is a good growth area for the program.
- New offerings in hydrogeology and groundwater modeling provide an opportunity to meet the specific needs of industry and agriculture interests in a large area of South, Central and West Texas.
- The department has developed and implemented an extensive student recruitment effort.
- The faculty is dedicated to the program is developing a strong funded research program.

### Weaknesses

- The department is two faculty members short of what is needed.
- The planning and review process seems to be reactive to problems rather than looking for opportunities for improvement.
- There does not seem to be a structured approach to assessing student performance and preparation for careers (... Feedback on the success of the program also filters in...)
- The report states that “Geosciences courses frequently fail to meet the Gen Ed standards last semester” and notes that future action will be taken to rectify the situation but does not state what this will be.
- During 2006-07 there was an increase in courses taught by part time faculty
- Informal methods for review, planning and advising are likely to suffer when only a few full time faculty are available to carry out these functions.
- Budget for faculty development and travel is not enough to provide opportunities to attend meetings, identify and use new techniques, interact with colleagues, etc.
- The amounts for operating budget, teaching assistants and support staff seems low but it is not clear exactly what all is included in this category.

### Recommendations

- Hire additional full time faculty to meet current teaching needs and allow growth in funded research. This should be a high priority in order to continue the development of the new areas.
- Involve alumni and companies/schools hiring graduates in planning and review process. This could be implemented as an advisory group or by informal visits and discussions.
- Provide a more formal approach to review and planning of courses and program development. 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.
- Increase budget for faculty travel and operating budget. Faculty members should have opportunities to interact with colleagues from other institutions to discuss common problems, approaches, solutions and trends.

## **Physics**

### Strengths

- The recent emphasis on nuclear and health physics should provide a needed focus to the program.
- 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.
- Support has been obtained from outside sources including grants for instruction and research infrastructure.

### Weaknesses

- The Department chair (and computational physicist) left the program recently.
- 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.
- 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.
- Amounts for operating budget, teaching assistants and support staff seems low but it is not clear exactly what this includes.

### Recommendations

- Hire needed replacement faculty to continue advances in the new program areas.
- 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.
- 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.
- 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.
- 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.
- The subcommittee believes the program should be recommended for *conditional continuation*.

## 4. Math

### Strengths

- The department supports many other programs in spite of its current challenges. While solid mathematics teaching implies better outcomes for many departments, the problems at the mathematics department also affect other departments.
- The department can capitalize on technological advances and creation of interdisciplinary majors such as Bioinformatics to strengthen its program.
- The math faculty is aware of the hardship to teach abstract nature of teaching mathematics. Variety of approaches to enhance student learning besides traditional teaching methods: Group discussions, cooperative learning, TTVN and web-based instruction, recitation sessions and research project.

### Weaknesses

- The department has high turnover rate in department leadership and faculty. This was acknowledged to create major challenges for the department to address the weaknesses of the program and create programmatic improvement. High turnover rate may also cause program teaching efficiency problems such as the interruption of student learning outcome implementation due to the change in the administration.
- Graduation rates remain low but appear to be in step with national trends.
- Low enrollment numbers (Typical for this department) and quality of students. No departmental admission policy. Poor student advising.
- No broad recruitment participation by the mathematics faculty.
- No formal, established measurable outcome assessment measures. The Student Learning Outcomes on page 18 are not stated in measurable terms. Many of the assessment measures (student portfolios, publication, presentations) were similar to measures used previously and were never actually required of the students. Also, they *only have the recommendations (for approval)* for the measurable outcome assessments on page 19. However, at least, one of the syllabi provided measurable outcome assessment criteria.
- No outside support to the department faculty and students.
- Insufficient travel and professional development funds for the faculty.
- Catalog course descriptions are older than 20 years and have not been revised for a long time.

## Recommendations

- Establish an advisory committee to oversee, assess, monitor and assist implementation of recommendations and address the weaknesses and challenges.
- Establish measurable, formal, effective methods to assess outcomes.
- Modify the course offerings both to meet the departmental requirements and to support many other departments simultaneously. Better planning and communication among departments are essential.
- Conditional Continuation.

## **5. Kinesiology**

### Strengths

The self-study was well prepared and included ample documentation. *Strengths* of the program include adequate numbers of majors to support the program and clearly delineated strategies for improving enrollment on both campuses. The program is strengthened by progressive leadership and dedicated faculty and administration whose scholarly and professional activities have been increasingly recognized by the learned societies of their disciplines. In both tracks of the program, substantial changes in the curricula have voluntarily aligned the disciplines with national standards. The program has articulated significant plans for future growth and development of each track on both campuses and has candidly assessed progress toward these goals.

### Weaknesses

*Weaknesses* of the program have resulted from faculty and administrative turnover during the review period, but both have stabilized in recent years. Faculty must balance heavy teaching expectations relative to their desire as well as the requirements for engagement in research. The discrepancy between these requirements and the University's Carnegie status jeopardize the recruitment and retention of quality faculty. Despite recent improvements, the program is hindered by lack of funding to maintain adequate facilities and equipment.

### Recommendation

The Committee recommends unconditional continuation of the Kinesiology program.

## 6. Community Health

### Strengths

- Initiated in 2000
- Endorsed by NCHEC
- Chair now more stable
- Requirement of “C” for each course
- Degree plan modifications to tighten and offer flexibility to students
- EDHL 4331 provides career preparation and volunteer experiences
- Good advising plan
- Acceptable scholarly productivity
- Departmental budget increases and faculty travel expenditures increase
- Acceptable funding outside the department

### Weaknesses

- Significant drop in SCH in EDHL
- Majors not growing significantly
- Few majors in program (13)
- Faculty instability and loss of faculty
- Past instability in chair position
- Program assessment tools seem underdeveloped
- Low number of faculty members engaged in scholarly activity and grant submissions

### Recommendations

- Continue to establish program goals and SLOs specific to NCHEC standards
- Hire tenure track doctorates in the field and bring pure health faculty to two
- Retain qualified faculty
- Recruit majors
- Upgrade teaching technology
- Maintain accreditation through NCHEC
- Acquire accreditation through AAHPERD/AAHE

**Conditional Continuation**—without appropriate faculty and majors the program will not remain viable

## 7. Ag Science

### Strengths

- Largest enrolled program in department
- Upgrades of shop laboratory equipment and installation of OSHA standards and safety codes
- Hands-on and real-world training of students using a variety of teaching methods, including internships
- Coherent advising plan
- Use of several assessment measures to assure program quality
- New exit exam and interview with graduating seniors
- Despite few faculty members and only one on the tenure track, appropriate scholarly activity

### Weaknesses

- Turnover in chair position
- Too few faculty for such a large program
- Need for more travel funds to oversee student teachers
- Urgent need for more safety, facility, and equipment upgrades

### Recommendations

- Hire another tenure track faculty member to help with advising and graduate theses/projects in addition to teaching duties
- Increase travel funds, especially for the teacher education program
- Upgrade facilities and equipment to assure student and teacher safety

Unconditional Continuation

## 8. Human Sciences

### Strengths

- The program appears to be very well managed by the department chair and a dedicated faculty.
- Undergraduate programs have been reviewed and revised to ensure courses meet core competencies established for vocational certification and accreditation through the ADA.
- Program delivery has been expanded by the use of TTVN, evening courses, and affiliation with the Family and Consumer Sciences Alliance.
- Students are actively and assertively advised.
- Faculty members have numerous publications in peer reviewed national and international journals.
- Accountability among program faculty is excellent, as indicated by faculty members submitting SLOs each semester.



### Weaknesses

- Majors have generally declined, with fewer in 2006-2007 than in 2002-2003.
- Semester credit hour generation has been erratic.
- The program lacks expertise in Family and Consumer Sciences Education.
- Program salaries may not be sufficient to attract or retain desired faculty members.

### Recommendations

- The program should be continued.
- The program should include a faculty member with expertise in Family and Consumer Sciences Education.
- The program should seek new and better ways of recruiting and retaining students.

Unconditional Continuation