Undergraduate Program Review Geology 2007-2008

I. Strengths

- 1. The development of GIS and GIS-related (e.g., remote sensing) courses and a GIS concentration is a good growth area for the program.
- 2. 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.
- 3. The department has developed and implemented an extensive student recruitment effort.
- 4. The faculty is dedicated to the program and is developing a strong funded research program

II. Weaknesses

- 1. The department is two faculty members short of what is needed.
- 2. The planning and review process seems to be reactive to problems rather that looking for opportunities for improvement.
- 3. 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...)
- 4. The report states that "Geosciences courses frequently failed 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.
- 5. During 2006-07 there was an increase in courses taught by part time faculty.
- 6. 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.
- 7. Budget for faculty development and travel is not enough to provide opportunities to attend meetings, identify and use new techniques, interact with colleagues, etc.

8. 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.

III. Recommendations

- 1. 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.
- 2. 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.
- 3. 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.
- 4. 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.