

## **Major Field Assessment Report (2003-2005)**

### **B.S., Chemistry Department of Chemistry and Physics**

December 15, 2005

Reviewing the results of the 2003-2005 assessment activities indicates areas of significant strengths and weaknesses within the BS in Chemistry program. One of the areas of strength was the percentage of graduates who felt that they were given opportunities and support for attending professional chemistry meetings. Over the past two years 100% of our graduates agreed with this while the departmental expectation was set at 80%. It is the belief of the department that this percentage will continue to remain high as we now have nine tenured/tenure-track professors actively conducting undergraduate research. Of those nine faculty, four are currently funded by external grants. Because the department is now more focused on undergraduate research, we will continue to see a large percentage of students writing OSCAR grants and attending professional meetings.

Another area of strength that this department takes great pride in is the percentage of graduates that have career employment or are in professional or graduate schools. Although information is only available for 55% of the graduates from the previous two years, 100% of those students are either in graduate school, medical/dental school, or have obtained career employment in the field of Chemistry. This is much higher than our expectation of 60% however; we do not feel that our goal needs to be increased at this time.

A final area of perceived strength is in the percentage of graduates with a GPA above 3.5 scoring above the 66<sup>th</sup> percentile on the Major Field Assessment Exam. It was anticipated that 75% of our students would achieve this goal and that goal was reached and surpassed. However, it should be noted that although we had 100% in this area, there was only one student that fell into the category.

One of the major weaknesses discovered in the program was that students with a GPA between 2.00 and 3.50 were not achieving the results set forth by the department in our Goal Attainment Framework. At the time of its implementation, it was anticipated that 75% of our graduates with a GPA between 2.00 and 2.75 would rank above the 33<sup>rd</sup> percentile based on national averages. Our results for the previous two years indicate that 0% of our students were scoring higher than the 33<sup>rd</sup> percentile. Similarly it was set forth that 75% of our graduates with a GPA between 2.75 and 3.50 would score higher than the

50<sup>th</sup> percentile. Once again the results were much less than anticipated with only 40% ranking higher than the 50<sup>th</sup> percentile. Although results were extremely poor, it should be noted that the percentage of students with a GPA between 2.75 and 3.0 increased from 25% in 2003 to 40% in 2005.

An area that has been a major strength for the department in the past proved to be less than expected over the past two years. The percentage of graduates that were satisfied with their chemistry instruction at Southeastern has always been extremely high. Our goal was that 90% of our graduates would be satisfied with their instruction as evidenced by the Exit Survey. Results indicated that only 73.3% of our 11 graduates were satisfied with their chemistry instruction. The Department agrees that this is probably due to the poor performance of the graduates discussed in this report.

Faculty members in the department discussed these results and came to the consensus that the outcome seemed appropriate when the MFA plan was developed. However, the faculty has come to the realization that the students are simply not taking the MFAT exam seriously as evidenced by talking with several graduates. Currently the exam is given the week before final exams in the semester the student graduates. We have discussed with Institutional Research the possibility of moving the exam earlier in the semester so that we could incorporate their MFA exam scores into a senior-level class. By moving the exam to a less stressful time in the semester and having their scores actually contribute to or take away from their grade in another class, the department feels confident that the predicted outcomes will be obtained. This, however, will be contingent upon Institutional Research's ability to move the exams to earlier in the semester. Once this is achieved, the department feels that the original Goal Attainment Framework figures will become more applicable. Although this was suggested in our last report, there has been no progress made in either moving the exam or incorporating it into an existing senior course.

It was also discussed by the faculty that the seniors that graduated over the past two years were not of the same caliber of the students reported in the 2003 report. By direct comparison between the GPAs and MFAT results from the two groups of students, it is the faculty's opinion that the MFAT results are exactly what was expected from this particular group of students. Based on current senior performances, it is anticipated that we will have much better performance from the students by December, 2007.