

## Major Field Assessment Report (2005-2007)

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

December 21, 2007

Reviewing the results of the 2005-2007 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 STAR 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 82% 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.

Another area of major strength for the department was improved upon from the last report. The percentage of graduates that were satisfied with their chemistry instruction at Southeastern was very low last report, but is once again 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 100% of our 17 graduates were satisfied with their chemistry instruction. The Department agrees that this is probably due to a much improved performance of the graduates compared to the last report.

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 less than anticipated with only 33% ranking higher than the 50<sup>th</sup> percentile. Although results were extremely poor, it should be noted that Hurricane Katrina caused the MFAT to not be administered during Fall 2005 and Spring 2006. As a result, the number of students with a GPA between 2.00 and 2.75 was 6, but only 1 took the MFAT. Similarly, the number of students with a GPA between 2.75 and 3.50 was 8, with only 3 taking the exam.

Another area of weakness 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. However, only 50% of our students were successful. It should be noted that we only had 2 students actually taking the MFAT that fell into this category due to the impact of Hurricane Katrina (the MFAT was not administered in Fall, 2005 and Spring, 2006).

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.

In summary the Chemistry Department does not feel that this report is a true reflection of the potential of the Department even though many of the results are quite flattering. The impact of Hurricane Katrina, as mentioned above, only 6 out of 17 graduates took the MFAT. It is the conclusion of the Department that no changes are to be made to our Assessment plan as this report does not show a true reflection of the students' efforts.

## GOAL ATTAINMENT FRAMEWORK

B.S., Chemistry  
Department of Chemistry and Physics

Academic Years 2005-07

December 21, 2007

Expected Outcome	Much Less than Expected	Less than Expected	Expected	More than Expected	Much More than Expected
% of graduates with a cumulative GPA of 2.00-2.75 scoring above the 33 <sup>rd</sup> percentile on the ETS Major Field Achievement Test in Chemistry	0%		<b>75%</b>		
% of graduates with a cumulative GPA of 2.75-3.50 scoring above the 50 <sup>th</sup> percentile on the ETS Major Field Achievement Test in Chemistry		33%	<b>75%</b>		
% of graduates with a cumulative GPA above 3.50 scoring above the 66 <sup>th</sup> percentile on the ETS Major Field Achievement Test in Chemistry		50%	<b>75%</b>		
% of graduates satisfied with their chemistry instruction, as indicated on the Southeastern Exit Survey			<b>90%</b>		100%
% of graduates who feel they were given opportunities and support for attending professional chemistry meetings while a student at Southeastern as evidenced by the Southeastern Exit Survey			<b>80%</b>		100%
% of graduates who have career employment or will be enrolled in graduate school as evidence by the Southeastern Chemistry Post Exit Survey			<b>60%</b>		100%