Assessment of Program Learning Outcomes
Report Form A

Chemistry  B.S.
(Instructional/Degree Program)  (Degree Level) August 2007-May 2008
(Assessment Period Covered)

Instructions: This form should be used to report on each of your Program Learning Outcomes. You may not assess every program learning outcome every year, but you will have a report for each outcome based on the year (2004-present) that it was assessed.

1. Program Learning Outcome (What did your program want from your students?)

Outcome: Critical thinking: Students will demonstrate the ability to access and interpret chemical information.

2. Strategies Used to Meet Learning Outcome (What did you do?)

a. Utilized CHEM 4001 Journal reading course to teach critical thinking and accessing information, and CHEM 4051 an Independent research course to reinforce and integrate critical thinking skills. Students are trained in using different search engines to retrieve chemical information. Department acquired Sci-Finder Scholar for Science searches.
b. The CHEM 4051, an independent research course builds on application of chemistry knowledge to solve research problems. Students produced both oral and written presentations.
c. Invited speakers in diverse chemical field to give presentations to our student.

3a. First Direct Measure or Means of Assessment for Outcome above (Pre-Post Test; Capstone; Licensure Exam; etc.). Briefly explain the means or measure and how you determined achievement.

At least 50% of Students completing CHEM 4051 independent research will present their work at regional conference or will serve as co-author in refereed journal articles.

3b. Results/Findings. (How did you do? Summarize Assessment Data Collected.)

60% of students completing CHEM 4051 presented at Regional Conferences

3c. Use of Results (How did you use the findings?)

The regional and national presentations serve as a good indicator of superior students’ performance by undergraduate chemistry majors. We will continue to stress research engagement and provide support for student’s engagement in research activities.

4a. Second Direct (or Indirect) Measure or Means of Assessment for Outcome above* (Direct: Pre-Post Test; Capstone; Licensure Exam; etc.; Indirect: Alumni Survey; Interviews; NSSE; etc.). Briefly explain the means or measure and how you determined achievement.*

80% of undergraduate majors who successfully complete independent research will be a co-author in at least one refereed publication

4b. Results/Findings. (How did you do? Summarize Assessment Data Collected.)

80% of Students co-authored refereed articles published in 2008

2006 94% N=6; 2007 81% N=8

4c. Use of Results (How did you use the findings?)

Department will promote faculty sponsored undergraduate research leading to scholarly production. Encourage more faculty members to write grant proposals in order to engage more students in research and critical thinking.

5. Documentation (What is the evidence (e.g. Licensure Exam Summary Results, Spreadsheet from True Outcomes from Capstone Course, etc.)? Where is it located (e.g. Assessment Coordinator’s Office, etc.?)

Students’ publications are located in the department’s office (Drs. Oki, and