

**ASSESSMENT RECORD FOR
DEPARTMENT
OF**

Sciences and Mathematics
(Academic Department Name)

2007-2008
(Assessment Period Covered)

October 22, 2008
(Date Submitted)

Includes Assessment Reports for those Instructional Programs listed below:

Title of Instructional Degree Program

Degree Level

(Associate, Bachelors,
Master's, etc.)

Chemistry

Bachelor's

Submitted By: Robert Holloway

(Departmental Chair or Faculty Assessment Representative)

ASSESSMENT REPORT FOR

Chemistry

(Instructional Degree Program)

Bachelor's

(Degree Level)

2007-2008

(Assessment Period Covered)

October 22, 2008

(Date Submitted)

Expanded Statement of Institutional Purpose Linkage:

Institutional Mission Reference: As a university committed to the liberal arts as fundamental to education and committed to our affiliation with the Presbyterian Church (U.S.A.), Schreiner is dedicated to excellence in preparing students to live purposeful, humane and productive lives in their work, faith groups, families and communities.

College/University Goal(s) Supported: Schreiner is dedicated primarily to educating undergraduate students in the liberal arts, sciences, and professional disciplines, preparing them for entry into specific careers and graduate or professional programs.

Intended Educational (Student) Outcomes:

1. Upon graduating with a major in chemistry a student will understand the interrelationships of scientific concepts.

2. Upon graduating with a major in chemistry a student will be able to exhibit a working knowledge of major chemistry concepts .

3. Upon graduating with a major in chemistry a student will be able to design and carry out an independent experiment.

4.

5.

ASSESSMENT REPORT FOR

Chemistry

(Instructional Degree Program)

2007-2008

(Assessment Period Covered)

Bachelor's

(Degree Level)

October 22, 2008

(Date Submitted)

Intended Educational (Student) Outcome:

NOTE: There should be one form C for each intended outcome listed on form B. Intended outcome should be restated in the box immediately below and the intended outcome number entered in the blank spaces.

 1 Upon graduating with a major in chemistry a student will understand the interrelationships of scientific concepts.

First Means of Assessment for Outcome Identified Above:

 1 a. Means of Program Assessment & Criteria for Success: Satisfactory performance (C or better) in general chemistry, organic chemistry and in the senior project. [At this time we no longer regard this criterion for success as adequate. See below.]

 1 a. Summary of Assessment Data Collected: C or better, CHEM 1402 (gen'l): 90.6%, CHEM 3412 (org): 90.5%, passed senior project: 100%

 1 a. Use of Results to Improve Instructional Program: We expect to use performance grades on the American Chemical Society Examination each time it is administered in the future. A satisfactory grade on this examination demonstrates achievement of the intended outcome.

Second Means of Assessment for Outcome Identified Above:

 b. Means of Program Assessment & Criteria for Success:

 b. Summary of Assessment Data Collected:

 b. Use of Results to Improve Instructional Program:

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Intended Educational (Student) Outcome:

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 2 Upon graduating with a major in chemistry a student will be able to exhibit a working knowledge of major chemistry concepts.

First Means of Assessment for Outcome Identified Above:

 2 a. **Means of Program Assessment & Criteria for Success:** Student grades (C or better) on the final exam in Chemistry 1402, 3412, 3404, and on the ACS General Chemistry Exam. All students must pass the final exam in the above mentioned courses. Students may repeat the course if necessary. Satisfactory performance (C or better) in general chemistry, organic chemistry, and physical chemistry. Completion of the chemistry assessment exam.

 2 a. **Summary of Assessment Data Collected:** C or better, CHEM 1402 (gen'l):90.6%, CHEM 3412 (org): 90.5%, CHEM 3404 (off rotation in 2007-8), No Chemistry graduates (no ACS scores) in 2007-8.

 2 a. **Use of Results to Improve Instructional Program:** No changes are planned at this time.

Second Means of Assessment for Outcome Identified Above:

 b. **Means of Program Assessment & Criteria for Success:**

 b. **Summary of Assessment Data Collected:**

 b. **Use of Results to Improve Instructional Program:**

ASSESSMENT REPORT FOR

Chemistry

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Bachelor's

(Degree Level)

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Intended Educational (Student) Outcome:

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 3 Upon graduating with a major in chemistry a student will be able to design and carry out an independent experiment.

First Means of Assessment for Outcome Identified Above:

 3 a. Means of Program Assessment & Criteria for Success: Satisfactory performance (C or better) in general chemistry, organic chemistry, physical chemistry, and in the senior project. [At this time we no longer regard this criterion for success as adequate. See below.]

 3 a. Summary of Assessment Data Collected: C or better, CHEM 1402 (gen'l): 90.6%, CHEM 3412 (org): 90.5%, passed senior project: 100%

 3 a. Use of Results to Improve Instructional Program: We expect to use performance grades in the physical chemistry lab course CHEM 3402L the next time the course is taught. A grade of C or better demonstrates achievement of the intended outcome.

Second Means of Assessment for Outcome Identified Above:

 b. Means of Program Assessment & Criteria for Success:

 b. Summary of Assessment Data Collected:

 b. Use of Results to Improve Instructional Program: