I Departmental and Program Assessment
Annual Assessment Plan Report

Academic Year: __2007-08_____

Academic Department or Program: __Chemistry_____

Chair: __M. W. Teague_____

Assessment Plan

- Is there an assessment plan for your department or program? (It should be on the web at http://www.hendrix.edu/academics/academics.aspx?id=7264. If not, explain when one will be completed.)
  Yes.

- Does the assessment plan include stated student learning goals? (If so, then copy or attach them. Goals should be able to stand alone as a list without pages of explanatory commentary. If not, explain when a list of student learning goals will be available.)
  The list of learning goals is in Appendix A of the 2006-07 departmental assessment report, and is also attached here as Appendix A.

- Does the assessment plan include a list of assessment data that are collected each year? (If so, then copy or attach the list. Assessment data lists should be able to stand alone as a list without pages of explanatory commentary. If not, explain when a list of assessments will be available. You do ***not*** need to submit any of your data, but it should be on file in your department.)
  See Appendix B (attached)

- Has your department or program done an assessment audit of your courses to determine how course goals match overall student learning goals? (This has not been required of departments, but it is a recommended exercise that was explained at the most recent chairs' assessment workshop. If you have done this, please report the results.)
  This analysis was detailed in our 2006-07 report.

- Are department or program student learning goals available to students? Are student learning goals included in course syllabi in your department or program?
  Departmental student learning goals are not routinely provided to students. Student learning goals are included in course syllabi.

Student Assessments

- Describe which *direct* assessments in your assessment plan have been collected for the year and which have not. ["Direct" refers to evaluated student work.]

  All direct assessment data listed in the Plan and Appendix B have been collected this year.

- Describe which indirect assessments in your assessment plan have been collected for the year and which have not. ["Indirect" refers to student surveys or opinions.]

  All indirect assessment data listed in the Plan and Appendix B have been collected this year.

Assessment Planning

- How is information about student learning shared and used for department or program decision making? (Each department and program is expected to have discussions of at least two hours each academic year to discuss assessment. If you have met, briefly summarize the meeting. If you have not met, when do you plan to meet?)

  We discussed and graded the Senior Capstone papers and talks. We discussed the scores of our students on the MFT exam. These student scores are intrinsically a measure by which to evaluate our program. We also will discuss our program in light of assessment data at a departmental retreat on May 23, 2008.

- Describe any curricular or other programmatic changes that have been made that were based (at least in part) on the availability of your assessment data.

  No major changes this year. The General Chemistry labs were run largely as in 2006-07 as a second run for the changes that were made for that year (see 2006-07 assessment report).

- Describe any changes in the Assessment Plan that have been made during this academic year. (If changes have been made, please submit an electronic copy of the revised plan to Amanda Hurd.)

  No changes have been made.

- What are the department's or program's plans for improving student learning in the major?

  Improving the laboratory program has been a recent departmental goal. The ATEC work is almost finished and the Green-SWAT laboratory program for the fall semester is nearly settled, though there is still some development to be done in the spring semester laboratory offerings. Our present focus is on developing materials for the non-science majors' course, Chemistry of the Environment. This work is supported by an outside grant (National Science Foundation – DUE - CCLI "Educating Green Citizens and Scientists for a Sustainable Future) that provides funds for an expert evaluator.

Appendix A

Chemistry Department Student Learning Goals

The Hendrix College Chemistry Department's program is designed to help students become life-long, creative problem solvers using chemistry. To this end, the program helps students to:

1. acquire the fact-based knowledge necessary to understand chemistry as citizens and practice it as scientists,
2. design and execute laboratory experiments,
3. develop the critical thinking skills necessary to assess and assemble facts and data,
4. work effectively individually and in groups,
5. communicate chemistry effectively in written and oral forms, and
6. assess the ethical implications of their work and its impact on our society and environment.

Appendix B
Assessment Data List, 2007-2008

Direct measures:

- MFT scores
- Senior Capstone papers and oral presentations
- Directed Research papers
- ACS nationally normed examinations for
  - General Chemistry II
  - Organic Chemistry
  - Physical Chemistry II
  - Advanced Inorganic Chemistry
- Scores on General Chemistry I final exam, common for all sections
- Scores on General Chemistry lab final exam, common for all sections
- Scores on General Chemistry lab practical, common for all sections
- Examinations and class projects
- ATEC lab reports (graded, with subscores)
- Plans of recent graduates

Indirect measures:

- Course evaluations of all courses by all faculty
- SALG (Student Assessment of Learning Gains)
  - General Chemistry I and II
  - General Chemistry I and II labs
  - Physical Chemistry I and II
  - Chemistry of the Environment
- List of student presentations at national meetings