DePaul University Academic Program Review

Cycle 5: Spring 2002—Spring 2003

Memorandum of Agreement -- September 2003

Chemistry Department

As a result of the fifth cycle of DePaul University's Academic Program Review Process (Cycle 5), the participants in the process enter into the following agreements. The participants understand that this document will be available to be made public once all the signatures are in place.

University Commitments to Cycle Five Units:

1. Academic and Career Advising:
   a. The University will look into providing institutional assistance for graduate/professional school preparation in terms of publicizing and making certain that standardized test preparation programs are available.
   b. The University will look into implementing advising alerts through Campus Connect that encourage students to contact their advisors prior to enrolling in courses.

2. Diversity:

   Consistent with the University’s mission, DePaul University remains strongly committed to promoting the diversity of faculty, students, and staff. Academic Affairs will support a variety of strategies developed by departments and programs to enhance such diversity.

Common actions agreed upon for the sciences at DePaul:

1. Graduate Stipends.

   The Dean of the College of Liberal Arts and Sciences acknowledges that current graduate stipends in the sciences are less than what is offered at comparable institutions and has made a commitment to make progress toward equity in this matter. Hence, an increase for stipends has been included in the budget for the coming academic year. However, for the long term, departments should consider alternatives to handling graduate assistant responsibilities such as lab staffing. Both sides agreed to continue discussions regarding alternative strategies in this matter within the larger context of the roles of the Masters science programs at DePaul.

2. Science Facilities

   The Dean of the College of Liberal Arts and Sciences and the EVP for Academic Affairs commit to being advocates for the sciences and science facilities at DePaul. Furthermore, they ask to be kept aware of the changing and upcoming needs of the science departments as they become apparent including: changes in curriculum, concentrations, and technology. Knowledge of emerging developments in the field will then allow the institution to better situate itself for the future.

3. Transitional Masters Program Initiative

   Academic Affairs and the Dean of Liberal Arts and Sciences agree to continue support of the transitional Masters program being piloted with Xavier University-New Orleans. The College of Liberal Arts and Sciences, Academic Affairs, and the science units agree to search for funding to support students brought in through this initiative without decreasing funds to existing graduate
students.

4. Freshman Sequencing Flexibility

The Dean of the College of Liberal Arts and Sciences and the EVP for Academic Affairs support efforts by the sciences to create flexible entry points into their programs. Actions including the reorganization of courses, the staggering of introductory sequences, and scheduling cooperation within the sciences and mathematics departments are all endorsed as ways to encourage student enrollment.

5. Formal Evaluation of Terminal Masters Programs

The Dean of the College of Liberal Arts and Sciences and the EVP for Academic Affairs encourage the science departments that offer terminal graduate degrees to evaluate these programs in terms of the quality of educational experience provided, satisfaction with student applicants, roles the program currently fulfills, future expectations of the programs and ways to achieve these goals. The Dean of the College of Liberal Arts and Sciences and the sciences agree to continue discussions regarding future directions for these programs where applicable.

College actions agreed upon for the coming year:

1. PeopleSoft and Advising

The College of Liberal Arts and Sciences will support the Chemistry department staff and faculty during the implementation of prerequisite checking feature of PeopleSoft and in training to use this feature. The subject matter expert (SME) within the College of Liberal Arts and Sciences will be available to assist in this process.

Actions agreed upon for the coming academic year:

1. Graduate Program Marketing

The Chemistry Department will investigate ways to increase the visibility of their graduate programs by exploring potential advertising outlets including direct mailings to industry, web advertising to focused targets, and possibly purchasing advertising space in local professional publications. Incoming students and potential students who contact the department will be monitored to see the effects of the advertising. If real opportunities for the growth of tuition paying students are identified and if evidence that ad placement will increase enrollment is provided to the Dean of the College of Liberal Arts and Sciences, the Dean has indicated a willingness to provide institutional assistance in ad placement.

2. Masters of Chemical Education Program Investigation

A Masters of Chemical Education program may be an opportunity for growth in the Chemistry Department and also an opportunity to provide service to K-12 educators in the Chicago Public School system. The department will investigate the viability of this degree by contacting the department chairs of high schools in the Chicago area with a questionnaire regarding the level and areas of interest their institutions have in this type of program. Should the program be viable, a proposal for the creation of a Masters in Chemical Education program, for six additional courses, and for appropriate resources will be made to the Dean of the College of Liberal Arts and Sciences. Additionally, grant funding opportunities for student tuition will be investigated.

3. General Chemistry Sequence Structure

The Chemistry Department is committed to examining its general chemistry sequences in order to
improve student inclusiveness and assist students who need to improve their math skills prior to or as they begin their coursework in the Chemistry Department. Possibilities include consolidating the two current chemistry sequences into one, requiring calculus (Mat 130) as a pre- or co-requisite for the Chemistry sequence, staggering courses in the fall and winter quarters to allow more than one entry point per year, and providing a summer sequence so students selecting the major later in their careers are not unduly delayed in completing the required coursework. Additionally, the Chemistry Department will continue to work with the Mathematics and other science departments, as appropriate, to enhance students’ math preparedness.

4. Mathematical Preparation

The Department will strongly encourage students to take MAT 260 and MAT 261 (Multivariable calculus I and II) prior to taking the upper level chemistry courses, namely CHE 210-211-215, where a solid background in the multivariable calculus taught in these math courses is necessary. The department will track students to see if any differences between the performances of those who take the additional math courses and those who do not are sufficient to justify including the courses as an additional requirement. Currently, with the exception of students interested in the American Chemical Society Accreditation, the MAT 260-261 courses are not part of the program requirements.

5. Laboratory Reports

The Chemistry Department is committed to help students enhance their ability to write high quality lab reports.

   a. Faculty will collaborate in the development of a unified template/model of what a good lab report should look like and make the model accessible on its website. The lab report model will be adjusted to fit the particular expectations of the chemistry sub-disciplines; namely, general chemistry, organic chemistry, inorganic chemistry, physical chemistry, and biochemistry.

   b. The Department will also consider using the writing workshops being sponsored by TLA and Academic Affairs during the fall and winter of 2003-2004, especially, those with a focus on writing in the sciences, to find ways to develop students’ writing abilities.

6. Advising

The Department will continue initiatives to improve advising. The Chemistry Advising Open House, in which students are invited to discuss registration/prerequisites issues with faculty, will continue so that students can obtain information as to what courses they should take and when they should take them. The web site and e-mail lists will be used to communicate with students about advising concerns/opportunities. The department will, as needed, address the issue of improving summer advising.

7. Assessment

Assessment of student outcomes is currently being used by the Chemistry Department as a diagnostic tool in courses aimed at majors. The Department Chair will continue to encourage use of the American Chemical Society’s standardized assessment tests for the purpose of enhancing individual courses and being able to compare the program to national norms. However, during the next academic year, the department has decided to develop ways to assess student learning for non-science majors. To this end, they will consult with TLA (the Teaching, Learning, and Assessment Committee). Areas of particular interest to the department include such issues as critical and creative thinking, and historical consciousness. The department will report in next year’s progress report on the uses made of the results of its various assessment efforts, including
the American Chemical Society’s assessment tests.

8. Career Development

The Chemistry Department will seek ways to make its students more aware of the variety of professional/career opportunities potentially available to them, including possible collaboration with similar efforts in the other science departments, especially the Environmental Science Programs, and with the Career Development Office. The department will maintain the fall event, “Life after DePaul,” in which students receive information about graduate/medical school, government positions, laboratory and forensics employment and non-traditional work as well as hear speakers from a variety of backgrounds and career settings. A link on the Chemistry Department’s website connecting students to a variety of career and educational opportunities will be created and maintained by the department.

9. Diversity

The Chemistry Department has an excellent history in diversity initiatives and efforts to recruit a diverse faculty. The department will continue these efforts when new faculty lines become available.

K-12 Future Science Teacher Preparation

The department will be open to and will initiate collaborative efforts with the School of Education to improve the preparation of science teachers for primary and secondary schools.

Signed:

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Chair of Unit Review Committee    Department Chair/Program Director

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APRC Subcommittee    Chair of APRC

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Dean of the College

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Associate V.P. for Academic Affairs    Executive V.P. for Academic Affairs