

Internal Academic Review 2008-2009

Department of Chemistry Internal Academic Review Committee Report to Senate

The Internal Academic Review (IAR) of the Department of Chemistry is now complete. The Internal Academic Review Committee (IARC) has taken into consideration all of the submissions related to the IAR of the Department of Chemistry and respectfully submits the following report. The IARC Report to Senate is intended to supplement the findings of the attached Review Team Report and to provide a mechanism for the Head of the Department of Chemistry and the Associate Dean of the Faculty of Arts and Science to jointly report on the progress in addressing the Review Team recommendations (please see the "Outcomes" section of this report).

Summary of the Internal Academic Review of the Department of Chemistry

The Department of Chemistry is recognized as a strong Unit that provides an excellent learning environment and produces exceptional research that is attracting national acclaim. The IARC congratulates the Department of Chemistry for revising its undergraduate program and adjusting to current fiscal constraints by innovative and creative means of delivering its programs.

The IARC agrees with the External Consultants' and the Review Team's recommendation that the Department should develop a plan to fund the operation of shared instrumentation and to maintain the technical staffing levels. The Department of Chemistry may wish to consider introducing student lab fees to maintain the quality of the laboratories in Chernoff Hall.

The IARC shares the concern raised in the Review Team report that the Department of Chemistry needs to consider a long-term sustainability plan for its graduate enrolment levels.

The IARC encourages the Department of Chemistry to strengthen its communication with its Teaching Assistants (TAs) to ensure consistency in grading criteria and standards and to ensure that TAs understand what material needs to be covered in tutorial sessions. The Department is also encouraged to keep its graduate calendar listings up-to-date so that it accurately reflects the current suite of courses being offered to its students.

The IARC recognizes the Department of Chemistry as a dynamic, vibrant department, despite constrained resources. The IARC fully supports the Department in its efforts to balance exceptional teaching and innovative research while addressing the recommendations of the IARC Reports in a concerted effort to maintain a high level of performance and success.

**Outcomes of the Internal Academic Review of the
Department of Chemistry**

*Joint response submitted by the
Dean of the Faculty of Arts and Science and the
Head of the Department of Chemistry*

The Department of Chemistry and the Faculty of Arts and Science are pleased with the outcome of the Internal Academic Review recognizing the Department of Chemistry as a strong Unit. We firmly agree with the IARC recommendation that the Department of Chemistry should develop a plan to support its major instrumentation research infrastructure. Indeed, the Department has already made significant progress towards ensuring the sustainability of its NMR, X-ray crystallography and mass spectrometry infrastructure. In September 2009, the Senate ARC granted Unit status to the Queen's Mass Spectrometry and Proteomics Unit, which is a new partnership between the Department of Chemistry and the Protein Function Discovery group of the Faculty of Health Sciences. The MSPU brings together the mass spectrometry infrastructures of the Department of Chemistry and PFD, and is governed by an Executive Board with a mission of providing state-of-the-art mass spectrometry and proteomics services to the Queen's community and to external users following a business plan that relies on growing external service, partnerships with provincial and national centres of excellence, and the establishment of corporate sponsorship. Similar strategies are being pursued to ensure the sustainability of the Chemistry NMR spectrometry and X-ray crystallography facilities. The recommendation of introducing ancillary fees for undergraduate Chemistry laboratories has been acted upon; a new ancillary fee policy has been approved by the Faculty Board in March 2010 and will be implemented in the Fall 2010 term.

As of November, 2009, the graduate student enrolment in the Department of Chemistry was the third highest at Queen's. Considering the current career stage profile of the Chemistry research faculty, the continuing growth of research support in the Department, and the anticipated appointment of the next Bader Chair in Organic Chemistry in July 2011, the Department expects its graduate enrolment to continue growing over the next decade, and believes that it can reach its stated graduate enrolment target. The Department continues to promote its graduate program aggressively, and recruiting activities are coordinated by its Graduate Recruitment Committee. New initiatives such as the CREATE program in Novel Chiral Materials, which was recently funded by NSERC for a six-year period to provide opportunities for student exchanges with international partners, are effective recruiting tools that will contribute to the sustainability and growth of the Chemistry graduate enrolment.

The Department has initiatives in place to enhance the communication and coordination with Teaching Assistants at different levels. During the academic year, laboratory TAs meet periodically with one of three laboratory coordinators who are responsible for the delivery of undergraduate laboratory programs and evaluation of laboratory reports and exams. Tutorial TAs also meet periodically with course instructors and—in the case of large multi-section courses—course coordinators to ensure consistency in the materials covered in tutorial sessions. At the beginning of each academic year, all

Teaching Assistants participate in a TA Day organized by the departmental TA Development Committee. The TA Day covers general issues related to teaching assistantship, including departmental and safety regulations, use of the departmental database, legal obligations, teaching workshops and organizational meetings with laboratory and course coordinators. The Faculty applauds the Department's comprehensive approach to communication with Teaching Assistants in support of the overall teaching mission.

The Chemistry graduate module offerings were recently revised and updated, and the graduate calendar listings accurately reflect the current suite of modules offered to Chemistry graduate students.

The Department of Chemistry and the Faculty of Arts and Science acknowledge the difficult budgetary situation faced by the University and remain committed to promoting the teaching and research excellence enjoyed by this high profile department.