

## Internal Academic Review Committee

### Report on the Review of the Department of Chemistry

The Department of Chemistry is the recipient of high praise from both the external consultants and the review team, having recently come through a period of evolution and transformation. In its current position as one of the leading chemistry departments in the country in both research and education, the Department faces a bright and promising future. All of the reports cite examples of the Department's distinction and outstanding reputation. They also note challenges which face the Department as it continues to move toward its established goals for the next four or five years. It is worth noting that the Department had recognized most of the issues that were highlighted in the reports well before the internal academic review was undertaken, and it is to be commended for the fact that a number of constructive plans designed to address the concerns are already well underway.

#### Major Recommendations

1. TEACHING: The Department of Chemistry has clearly stated its objectives for the period 2001- 2006. Both the External Consultants and the Review Team found the goals to be appropriate, and urged the Department to pursue them forcefully, noting that in times of continuing financial constraint, there will be many challenges to face and choices to be made. One of the goals of the Department is to be the acknowledged leader in undergraduate education in the country.

*The IARC endorses this objective and recommends that to achieve this goal, the Department should give immediate attention to improving enrolment levels in the upper years of the Chemistry Major programs, and should assign more senior faculty to teach introductory courses.*

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2. RESEARCH: Another goal of the Department is to display leadership in research and indeed, it has recently made great strides in raising its research profile. However, to be a leader, extraordinary effort must be expended.

*The IARC recommends that the Department aggressively explore all external funding possibilities so that it may fully realize its national and international ambitions in this particular area.*

3. ENGINEERING CHEMISTRY: The unique program in Engineering Chemistry attracts an outstanding group of students and should be maintained.

*To this end the IARC recommends that all efforts be made to work cooperatively with the Department of Chemical Engineering and the Faculty of Applied Science to preserve and enhance this program.*

Outcomes of the Review:

*The following response is submitted by the Dean of the Faculty of Arts and Science and the Head of the Department of Chemistry.*

**Undergraduate Program.**

During the academic years 2002-2005, with the exception of an award-winning Special Term Adjunct, all instructors for first and second year courses are regular faculty members. The three Undergraduate Laboratory Coordinators will play a leading role over the next few years in designing and implementing new experiments required in the new 2<sup>nd</sup> and 3<sup>rd</sup> year laboratory programs. A Teaching Assistant Development Coordinator was appointed in the summer of 2002. The Undergraduate Student Affairs Committee was formed in January 2001 and deals with various aspects of faculty-student relations and communications. The design of the new building is also fostering a much greater sense of “community” among faculty, students, and staff. Substantial revisions to the 3<sup>rd</sup> and 4<sup>th</sup> year curricula have now been completed. These revisions

eliminate low enrolment upper year courses and provide a stable core which will be offered annually. The Applied Science and Arts & Science 4<sup>th</sup> year project courses now have a common instructor, more structure, and measures have been taken to ensure continuity in method of course delivery. The Department has developed and implemented a three-pronged fund-raising strategy to replace and enhance aging undergraduate laboratory equipment.

### **Graduate Program**

The Graduate Coordinator and the Graduate Recruiting Committee have adopted a proactive approach towards increasing the proportion of competitive award holders. Three measures have been implemented to improve training in written and oral communication. Double-numbered undergraduate-graduate courses and low-enrolment modules have been eliminated.

### **Research**

The Department of Chemistry has pursued and will continue to pursue all available external sources to create faculty positions (CRC Tier I and II, NSERC Industrial Research Chairs, and University Faculty Awards). A major CFI grant (Accelerating Drug Discovery) was awarded in late January to a consortium of seven Chemistry faculty. Overhead money will be used to fund three FTE research support staff positions. User fees for technical services have been standardized across the department and some have been increased.

Follow-up on these recommendations and issues will take place in the annual budget and staffing strategy meetings between the Dean of the Faculty of Arts and Science and the Vice-Principal (Academic).

**NOTE:** Two members of the Internal Academic Review Committee declared a conflict and did not participate in the preparation of this Report.