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MEMORANDUM

ATTENTION Senate **DATE** June 18, 2012
FROM Jon Driver, Vice-President, Academic and Provost, and Chair, SCUP **PAGES** 1/1
RE: Faculty of Science: External Review Update for the Department of Chemistry (SCUP 12-20)

At its June 6, 2012 meeting SCUP reviewed the External Review Update Report for the Department of Chemistry within the Faculty of Science. The report is attached for the information of Senate.

encl.

c: B. Krane



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MEMORANDUM

ATTENTION Jon Driver, Chair, SCUP
FROM Bill Krane, Associate Vice-President,
Academic and Associate Provost
CC Z. Ye, C. Cupples
RE: External Review Update for the Department of Chemistry

DATE May 30, 2012
PAGES 1/1

A handwritten signature in black ink, appearing to be 'Bill Krane', written over a horizontal line.

The External Review of the Department of Chemistry was undertaken in March 2008. According to the procedures established by SCUP, the Department is required to submit an update describing its progress in implementing Senate's recommendations, which were derived from the External Review report, in the fourth year following the start of the External Review process. Please find attached this update, together with a copy of the recommendations approved by Senate for action.

Based on this midterm report, my assessment is that the Department has made substantial progress toward implementing Senate's recommendations, within the constraints imposed by its budget.



MEMO

ATTENTION: Glynn Nicholls, Director, Academic Planning & Budgeting

**Department of
Chemistry**

FROM: Zuo-Guang Ye, Chair of Chemistry

RE: External Review Update for the Department of Chemistry

DATE: May 28 2012

C: Dr. Claire Cupples, Dean, Faculty of Science

In response to your memo dated April 27, 2012, please see below for the External Review Update for the Department of Chemistry.

**Department of Chemistry - External Review Update
May 2012**

UNDERGRADUATE PROGRAMS

- *As a priority and with the assistance of the Dean, establish a plan for the upgrading of equipment in the physical and analytical chemistry laboratories.*

A plan for the upgrading of equipment in the Physical and Analytical Chemistry Laboratories was established following the Review and funds were made available by the Vice-President, Academic and the Dean. Up to date, the upgrading of the Analytical Chemistry Lab has been completed and the Physical Chemistry Lab's upgrading is underway and will be completed in the 2012-2013 fiscal year.

- *Review the level of dependence on the use of sessional instructors for teaching undergraduate courses.*

The dependence on the use of sessional instructors for teaching undergraduate courses was mainly caused by the research awards and administrative leaves of many of our faculty members. Although we still need sessional instructors to teach a number of courses each semester, such dependence has been significantly alleviated with the conversion of two limited-term instructors into two continuing lecturers in the 2010-2011 academic year, and with the appointment of a new assistant professor in Bio-Analytical Chemistry in Sept. 2011. Appointments of two new faculty positions in Inorganic/Materials Chemistry and in Bio-Physical Chemistry, respectively, are very desirable to further reduce the level of dependence. So far, we have obtained the permission for research for one of the two positions only (see Sec. "FACULTY").

- *Review the teaching loads of the continuing faculty.*

The teaching loads of the continuing faculty have been reviewed. Our continuing laboratory instructors teach on average 6 courses per year with the possibility of taking one development semester after eight teaching terms. Our regular research faculty members teach on average 3 undergraduate/graduate courses per year, including the graduate seminar courses (CHEM 801 and the newly created CHEM 808 – PhD Candidacy). In addition, they

teach the undergraduate research/directed study courses (CHEM 481, 482 and 483). These teaching tasks are considered as normal loads.

GRADUATE PROGRAMS

- *Review the requirements for the BSc and the MSc degrees with a view to avoiding 'double numbering' of courses.*

The requirements for the BSc and the MSc degrees have been reviewed and the issue "double numbering" of courses has been resolved.

- *Review the procedures for the admission to the PhD to ensure consistent application of admission requirements.*

The procedures for the admission to the PhD program have been reviewed by the DGSC to ensure consistent application of admission requirements and new admission requirements have been approved by the Department and published in the Calendar.

- *Introduce a graduate course for PhD candidates which includes the preparation and defence of an original research proposal.*

Such a new course was introduced as CHEM 808 (Ph.D. Candidacy) in 2011-2 and has been running successfully since.

- *Review the graduate stipends offered to ensure they are competitive with other departments of Chemistry across Canada.*

The graduate stipends have been increased accordingly as follows:

- Ph.D. Candidates: from \$19,000 to \$23,500 per annum;
- M.Sc. Candidates: from \$18,000 to \$20,000 per annum.

These resolutions have made our graduate program more competitive with other departments of Chemistry across the country.

- *Consider the compilation of a departmental Graduate Student handbook.*

A detailed departmental Graduate Student handbook has been made available to all the graduate students and in particular for every newly admitted student.

FACULTY

- *Consider with the assistance of the dean, the possibility of increasing the number of faculty.*

This remains a serious issue for our Department. Recognizing the lack of faculty in the Department, the External Review Team had highly recommended the hiring of a faculty position in area of Materials Chemistry (to replace a faculty member who was on unpaid leave), one in the area of Inorganic (Main Group) Chemistry (to replace the departure of a faculty member) and another one in Physical Chemistry (to increase the critical mass in this discipline). However, none of these positions has been approved for research so far despite our repeated requests for a Materials Chemistry position in the last three years. In addition, we lost a faculty member in July 2011 due to unexpected death and another faculty member retired in 2011.

In the 2012-2013 Faculty Hiring Plan, the Chemistry Department has received the permission to search for either a Bio-Physical Chemistry position or a Materials Chemistry position. However, both the Materials Chemistry position and the Bio-Physical Chemistry position are urgently needed in the Department in order to fulfill our

teaching tasks, enhance our research program and raise our profile after suffering the losses of a full professor to a 5-year leave followed by early retirement, a full professor to retirement and an associate professor's unexpected death. Therefore, to comply with the External Review's recommendation, we request the approval of both the Materials Chemistry position and the Bio-Physical Chemistry position for research in 2012.

ADMINISTRATION

- *As a priority and with the assistance of the Dean, address the critical safety issues associated with the Shrum Science Building.*

With the help of the KIP, the safety issues have been resolved with the completion of the Chemistry Renovation Project in Aug. 2011, which has resulted in a newly designed and fully renovated Shrum Science Chemistry Building with state-of-the-art safety measures implemented. The total cost of the Renovation Project was \$49.3M, with the breakdown of \$46.5M for Design and Construction and \$2.8M for Equipment/Furnishing. This represents a tremendous investment into the future of our teaching and research, which is much appreciated.

- *Continue to seek possible solutions to address the shortage of adequate space.*

The Chemistry Renovation Project mentioned above has not resolved the issue of shortage of adequate space as no new space was allowed to be added due to nature of the Project. In addition, the renovation of the North-East part of the Chemistry Building (8000 and 9000 levels) has not been started yet because of the lack of funds. As a result, the Analytical Chemistry Laboratory is still temporarily located in Blusson Hall, which is very inconvenient to the students and faculty, and several faculty members are using temporary offices outside the Chemistry Building. We hope that the space issue can be resolved in a timely fashion to oversee the continued growth and success of our Department.

Please feel free to contact me with any questions. Thank you.

Zuo-Guang Ye
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ATTENTION Dr. Zuo-Guang Ye, Chair, Chemistry
FROM Glynn Nicholls, Director, Academic Planning and Budgeting
CC C. Cupples, Dean, Faculty of Science
RE: External Review Update for the Department of Chemistry

DATE April 27, 2012
PAGES 1/2



In 2004 the Senate Committee on University Priorities endorsed procedures for reviewing a department's progress in implementing the recommendations approved by Senate as a consequence of the previous external review (which takes place normally once every seven years). The last review of your Department occurred in March 2008. This is to advise you that the External Review Update for the Department of Chemistry is due at this time.

On December 1, 2008 Senate approved the following recommendations:

1. Undergraduate Programmes

- As a priority and with the assistance of the Dean, establish a plan for the upgrading of equipment in the physical and analytical chemistry laboratories.
- Review the level of dependence on the use of sessional instructors for teaching undergraduate courses.
- Review the teaching loads of the continuing faculty.

2. Graduate Programmes

- Review the requirements for the BSc and the MSc degrees with a view to avoiding 'double numbering' of courses.
- Review the procedures for the admission to the PhD to ensure consistent application of admission requirements.
- Introduce a graduate course for PhD candidates that includes the preparation and defense of an original research proposal.
- Review the graduate stipends offered to ensure they are competitive with other departments of Chemistry across Canada.
- Consider the compilation of a departmental Graduate Student handbook.

3. Faculty

- Consider with the assistance of the dean, the possibility of increasing the number of faculty.

4. Administration

- As a priority and with the assistance of the Dean, address the critical safety issues associated with the Shrum Science Building.
- Continue to seek possible solutions to address the shortage of adequate space.

Please provide a **one to two page** progress report by Friday, May 25, 2012 on the actions that your Department has taken in response to the recommendations approved by Senate on December 1, 2008.

Please contact me at 26702, gnicholl@sfu.ca or Bal Basi at 27676, bbasi@sfu.ca if you have any questions or concerns regarding the external review update process.

Thank you.