

19 July 2011

Professor Cheryl Regehr
Vice-Provost, Academic Programs
Office of the Vice-President and Provost
Simcoe Hall
University of Toronto

Follow-up Report, External Review of the Department of Physical & Environmental Sciences

Dear Cheryl,

Thank you for your letter of 17 June 2011 requesting a follow-up report to the external review of the Department of Physical & Environmental Sciences. The Department of Physical and Environmental Sciences is our leading department in several important ways, including the excellent reputation of the research faculty, the strength and innovation of its graduate programs, and the commitment of its faculty to the Department and to the larger UTSC project. I am very grateful to the reviewers for their careful consideration of the Department and their recognition of its strengths. We are also grateful for their candid assessment of the challenges facing the Department. We have taken their recommendations seriously. We have been working hard over the year and have made substantial progress in implementing their recommendations.

Curriculum and academic programs

1. The physics and astrophysics undergraduate programs have been completely revised and students are now able to meet all program requirements with course offerings at UTSC. The programs contain the standard elements of an undergraduate physics degree with a planetary flavor. This is consistent with the objectives outlined in the departmental plan. Program changes were taken through all levels of governance last year and will commence in September 2011.
2. The physics and astrophysics group has developed an aggressive hiring campaign that will see their ranks grow within the next three years. In the interim they will remain dependent on stipendiary and contractually limited hires to meet their teaching obligations.
3. The chemistry group plans to seek accreditation from the Canadian Society of Chemistry for its specialist programs. In order to be accredited, the programs must increase the lecture and laboratory contact hours. In addition, more comprehensive coverage of the five main areas of chemistry is required. Over the past year the department made excellent progress toward achieving this goal:

- a. It has hired three new faculty, one in the teaching stream and two in the tenure-stream. With this increase in complement, the chemistry program no longer will be dependent on stipendiary hiring except for research leaves and personal leaves.
 - b. The lecturer is tasked with the development of needed laboratories in second year inorganic and physical chemistry.
 - c. A course in biochemistry is being added to the curriculum.
 - d. The curricular revisions required to achieve the goal of accreditation will be taken through the 2011-12 UTSC curriculum cycle, which begins this summer.
4. The environmental science faculty group also has reconsidered its programs in light of the external review. The Environmental Careers Organization (ECO) recently has agreed to review these programs for accreditation. In addition, changes in the Geosciences Specialist program are being contemplated to enable graduates of this program to achieve all academic requirements of the Professional Geoscientist designation (PGeo).
- a. Modifications to the Geoscience Specialist program will be taken through the 2011-12 UTSC curriculum cycle.
 - b. Changes to the Major program in Environmental Science, which will enable graduates of this program to be eligible for the Department's Masters of Environmental Science, were implemented in September 2010.
 - c. The environmental science programs are becoming less dependent on stipendiary hires as recent permanent hires reach their full teaching potential.
5. Co-op working groups were struck for both chemistry and environmental science. Physics and Astrophysics have opted out of co-op and will focus on the Concurrent Teacher Education Program. The chemistry working group has developed a coherent plan to enable students to move more smoothly through the chemistry co-op program. Approval of the new plan will be sought in the coming year. The environmental science working group is redesigning the program delivery and will report to the department sometime in the fall of 2011.

Structure and administration of the unit

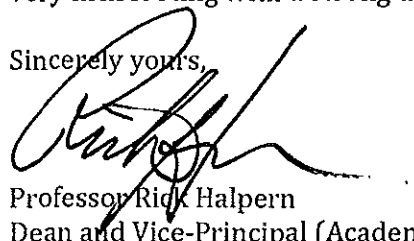
1. The Chair has appointed four Associate Chairs, one for undergraduate affairs, one for research and one for the graduate programs. The fourth Associate Chair has been appointed with specific responsibility for Physics and Astrophysics. This was done to provide this disciplinary group with a degree of autonomy within the department and as a potential first step towards becoming an independent department. This structure has worked very well.
2. The Chair initiated the drafting of a departmental constitution, which was ratified in the fall and took effect 1 January 2011. Regular meetings, presided over by a "Chair of Council" (someone other than the department chair), now take place to review curricular matters, department trajectory, and space.
3. Internal communication has also been enhanced through regular emails and more formal memoranda from the Chair. The memos are posted on the departmental web page for reference. Over 50 memos on a wide variety of departmental issues have circulated to date.
4. Overall, morale is now extremely high. Faculty are engaged and actively involved in the departmental matters. There is a marked increase in optimism about the future of the department and a renewed confidence in the excellent work being done within it.

Departmental Facilities

1. The TRACES laboratory has received final approval and construction of the facility will be complete by fall 2011. This facility will provide state of the art chemical analysis equipment for both instruction and research. This exposure to cutting edge techniques will be a key component for accreditation of the chemistry programs.
2. Following the completion of the new Instructional Centre and resulting secondary space re-allocation, the department has gained over 400 nasms of space for much needed offices for faculty, staff and students, and instructional and research space. Renovations to this space have already begun. Two new faculty research laboratories will be completed by the end of the summer and expanded and renovated space in a new portable will be available for the Masters of Environmental Science students within the current year. Three of the chemistry teaching laboratories, which are badly out of date, also will undergo major renovations during the summer of 2012.

The Department of Physical and Environmental Sciences has made remarkable progress over the past year; I am very grateful to the Chair for his excellent leadership. The Department is now on a very firm footing with a strong upward trajectory.

Sincerely yours,



Professor Rick Halpern
Dean and Vice-Principal (Academic)