



Canadian Association of Physicists  
Association canadienne des physiciens et physiciennes

## Exploring Interest in Accreditation of Canadian Physics Programs January 19, 2015

Prepared by: Barbara Frisken, CAP Director of Academic Affairs

### Introduction

At the business meeting of the Physics Department Leaders in Sudbury, June 17, 2014, the group discussed the possibility of national accreditation of physics programs. This issue was first raised by Prof. Chitra Rangan at the 2013 Department Leaders Meeting. The suggestion was motivated by the fact that other groups such as Engineers Canada and the Canadian Society for Chemistry (CSC) offer such a process and that accreditation is used to strengthen their programs and their departments. Also, several colleagues have noticed inquiries about the accreditation of programs from students applying to professional programs, for example.

It turns out that other physics associations are also interested in this process. The UK Institute of Physics (IOP) currently accredits physics programs in the UK as part of its CPhys process. We have recently learned that the American Physical Society (APS) is defining a core curriculum that APS believes would represent an acceptable BSc Physics program. As a first step, Departments could use this for self-review and assessment when they conduct their own regular departmental reviews.

During the fall of 2014, departments voted on the question: "The Department Leaders group encourages the CAP Executive to explore the possibility of developing a system for accreditation of Canadian physics programs". A total of twenty three departments participated in the vote with a majority (12) voting in favour. However, the Board of the CAP had indicated that a vote in favour of a majority of departments offering BSc programs in physics was needed to show sufficient interest to commit resources required for this type of project; as there are currently 47 departments offering BSc programs in physics, this criteria was not met. The main reason that departments voted against was they did not feel that the advantage of a program accreditation or program standards justified the increase in administrative effort required to mount such a program.

### Background Notes

Information about the CSC and IOP accreditation processes can be found at the following links:

<http://www.cheminst.ca/about/cic/csc/csc-accreditation>

[http://www.iop.org/education/higher\\_education/accreditation/page\\_43310.html](http://www.iop.org/education/higher_education/accreditation/page_43310.html)

Commonalities of the CSC and IOP process include

- Assessment of program (courses, lab, lecture etc) and department resources
- Site Visitation Teams
- Degree Accreditation Committee
- 5-year renewal period

According to participants in the CSC process (Barbara Frisken discussed with Danny Leznoff from the SFU Chemistry Department), the following benefits accrue from the accreditation of chemistry programs:

- May be useful for defending small programs
- Provides opportunity for thorough self-reflection of undergraduate program that may not be possible in external review
- Department can use issues raised in the report to request extra resources from the administration
- Raises profile of CSC

Preliminary discussions were made at CAP. In particular, Stephen Pistorius, as Director of Professional Affairs at CAP, discussed possibilities with the Professional Affairs Committee. The committee feels resources available to the CAP would probably not allow an independent accreditation program, but suggested that this could be dealt with as part of the regular department review. They would prefer to minimize duplication of effort and tie into existing reviews or related processes as much as possible. He suggested that this process would have an undergrad focus, possibly be tied to the P.Phys program, and that implementation might require submitting documentation prepared for existing processes to a CAP committee, which would respond/query etc. The details of what would be surveyed or would need to be submitted would need to be worked out for approval by department members.