

## **College of Arts and Science**

### **Department of Physics and Engineering Physics**

## **Criteria and Standards for Special Salary Increase**

This document supersedes section 6 (Criteria for Special Salary Increase) of the department's "Criteria and Standards" document, which was approved by the Department on December 7, 2000 and by the College Review Committee on April 10, 2003.

### **1. Preamble**

Special Salary Increases or Merit Increases are recommended for faculty members whose service in a year, or cumulatively for a number of years, is of a standard above what is normally to be expected for a person in that rank.

The normal expectation in a rank is at the Department's "Meets the Standard" level for, promotion to that rank for the case of an Associate Professor or Professor, or attainment of Tenure for the case of an Assistant Professor. Please see the Department's "Criteria and Standards" for these standards; indeed, this "Criteria and Standards for Special Salary Increase" document is better read in conjunction with the "Criteria and Standards" document. In places below, for the reader's convenience, extracts from the "Criteria and Standards" document are included.

The standards for Canada Research Chairs also involve activities in the 3 areas below. There are different and lesser expectations for quantities of teaching, but strong activity and excellence in both Research and Administration are expected.

Consistently excellent performance in one or more areas for an accumulated period is highly regarded by the Department.

### **2. Teaching**

From Section 1.2 of the Department's "Criteria and Standards": "Satisfactory performance in teaching will be established if the Department obtains information that affirms that:

- The candidate's lectures are well prepared and delivered at an appropriate level,
- The lecture material follows the approved course outline and calendar description,
- The candidate is available to students for questions and discussion, and
- The examinations and/or other assessments are fair and equitable."

Beyond that, evidence that may be considered for merit in teaching includes (but is not limited to):

1. Consistently high ranking in Department student teaching evaluations.
2. Receipt of a Department Teacher of the Year Award.
3. Receipt of a USSU, College, or University teaching award.
4. Receipt of a National teaching award.

5. Publication of papers on teaching pedagogy.
6. Publication of a text book.
7. Creation of innovative course materials or delivery methods.
8. Significant activity in graduate student supervision, teaching and advisory committees.

### **3. Research, Scholarly and Artistic Work**

The General Criteria listed in Section 1.4 of the Department's "Criteria and Standards" are repeated here: "Performance in research will be judged with reference to the candidate's activities in the following areas:

- Refereed publications in recognized journals.
- Research support in the form of grants or contracts.
- Presentation of papers at conferences, in particular invited papers.
- Invited seminars at other institutions.
- Participation with national and/or international committees or associations involved with the promotion or practice of research in the candidate's field of specialization.
- Publication of internal reports that are solicited by external researchers.
- Book publication.
- Letters from external referees where required."

In addition there are differences in expectations according to rank, and these, as outlined in the preamble (Section 1 in this document), define the normal expectation at each rank.

**For an Assistant Professor:** "Candidates must have a serious commitment to research and provide evidence that their research is sufficiently sound. Such evidence is provided by the information outlined in section 1.4 of the Department's "Criteria and Standards" but should at least include publications of research work in recognized refereed journals and evidence of research support."

**For an Associate Professor:** "Evidence of an on-going active research program is required. This is judged by the information outlined in section 1.4 of the Department's "Criteria and Standards." The evidence should show that the candidate has a mature research program that will be maintained into the future."

**For a Professor:** "A candidate must have a record demonstrating active, mature, independent research and scholarly activity, which has contributed substantially to the development of the candidate's field. The quality and innovative nature of this work will be considered, not just quantity of publications."

Some additional comments are now provided.

- The publication of research in internationally recognized refereed journals is one of the main criteria used in the evaluation of a faculty member's performance in research. Factors such as the length of the article, the journal in which it is published, and citations are all points that may be considered. A list of recognized

physics journals (that is not exhaustive) is appended to the Department's "Criteria and Standards" document. It should not be misconstrued that a short paper is necessarily unimportant. For example a short paper in Physical Review Letters (which has a 4 page limit), Nature or Science may be extremely important because of the nature of the journal. In the case of multi-authors of a paper, the candidate is asked to signify the contribution made by the candidate.

- The numbers of papers published each year by a faculty member who is "meeting the standard" at a particular rank, vary widely within the Department. This is due to the multi-disciplinary nature of the research, and whether the paper is dominated by theoretical or observational approaches. The candidate, and/or the Head, will comment on this aspect of any recommendation to the College Review Committee.
- Significant contributions, above normal expectations, to the training of "highly qualified personnel" as defined by NSERC, particularly post-doctoral fellows, graduate students and undergraduate students that are involved in research, is valued highly by the Department.
- Refereeing of articles for well-recognized journals is taken as an indication of the individual's stature in the field, although not all refereeing requests are accepted by Professors, due to work-load.
- The publication of a book, whether at an undergraduate, graduate or specialized level is an important accomplishment. The amount of effort going into such a project is certainly equivalent to the publication of a number of papers. Few physicists publish books; this is because of the competitiveness within the research communities. E.g. the need to satisfy granting agencies regarding the support of programs and students, and the need to quickly communicate new ideas in the literature. Hence the publication of a book in addition to research papers is especially meritorious.
- When a faculty member is asked to serve on the executive of, or to chair, a nationally or internationally recognized institution or committee, it is because the member has become recognized as a scientist of stature in their field.
- Significant development of the research area in which the professor is involved, nationally or internationally, and the associated acquisition of grants or contracts in this area, is also highly valued in the department. (Some of such activity could also be considered under scientific administration, which is discussed in the next section.)

#### **4. Administration (Academic and Scientific)**

Faculty members are expected to serve on Departmental committees as well as College and University committees. The amount of work entailed in serving on a committee varies considerably, and generally increases with rank. Therefore, it will be important for the candidate to signify the workload of the committee and to indicate the level of his/her contribution to the committee.

The level of Administration at all levels, and including academic and scientific, continues to increase. It is vital that this work be accomplished at the highest standard, for both the Department and for the University. The Department therefore values this work very highly.

- It is recognized that chairing a Department committee can in some cases be a time consuming and challenging task. It is also recognized that the chairs of the three major standing committees in the Department, the Undergraduate Affairs Committee, the Graduate Affairs Committee and Engineering Physics Committee, each have special challenges.
- In addition the Department recognizes the additional administrative load associated with the following two positions: The Chairman of the Institute of Space and Atmospheric Studies (ISAS); Director, Plasma Physics Laboratory (PPL). As well, the chairing or co-chairing of other important local, national and international committees and boards also take a significant amount of time and effort.
- Recognition of the substantial load associated with the positions mentioned in the above paragraphs may be partially accounted for in the assignment of duties, but that is often not enough to offset the extra work involved, especially in certain critical years (e.g. major review or grant application years).
- Significant efforts in the initiation, organization and execution of outreach and public service events and activities are highly valued by the Department. These can be very time consuming and they provide very significant benefits to the Department and the University.

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Approved by the Department of Physics and Engineering Physics on October 24, 2006.