

# Merit Metric for the Department of Physics and Astronomy

January 28, 2007

## I. Overview

The Merit Pool will be distributed according to a Points System. Points will be assigned in each of the three areas of workload – service, teaching and scholarly activities – as detailed in Sections II, III and IV respectively. The total number of points that a faculty member receives in all areas will be divided by the summed points for all faculty members, to determine his/her fraction of the available Merit Pool (on a dollar basis).

Faculty members whose salary does not contribute to the DPA merit pool are not included in the calculations that lead to the merit pay allocation. No merit pay shall be given for activities outside the mission of the University.

## II. Allocation of Points for Teaching Activities.

### 1. Classroom instruction.

Merit points are awarded for each course taught during the Fall and Spring semesters. The Chair assigns merit points for classroom instruction based on the formula listed below.

$$M=2.5(C+(5 - \langle S \rangle)) \text{ with } C_{\max}=4$$

**(a) The maximum points of C are determined from the following departmental requirements:**

(i) Having a detailed syllabus which is consistent with the official course description in the catalog, and which contains a clear description of the means of assigning letter grades in the course.

(ii) Providing representative samples of homework assignments and/or quizzes and/or exams, as requested by the chair.

(iii) Holding office hours for students

(iv) Having a distribution of letter grades which is not unjustifiably high in comparison with similar courses offered by the department.

**The maximum points of C are awarded when the faculty member's teaching meets all four criteria.**

(b) Scores on departmental course evaluation forms, or course evaluation forms that contain the two statements “overall rate the course” and “overall rate the instructor” using a 5-point scale from very poor to excellent, with excellent = 1. Evaluation forms must be distributed by a non-faculty member designated by the Chair. The instructor rating and course rating are arithmetically averaged to get a single score,  $S$ , for each course. This gives from 0 to 20 points per course. Additional merit points are awarded for each course according to  $4 \times \ln(\text{number of students enrolled in the course})$ . For courses for which 4 contact hours can be documented, the total number of points will be multiplied by 1.33. Courses with less than 3 contact hours will be prorated accordingly.

2. Development of new courses, and laboratory redevelopment.

10 points are awarded for developing and teaching an entirely new course.

2 points are awarded for first time teaching of an existing course.

15 points are awarded for complete laboratory redevelopment. (Prorated according to the number of faculty involved.)

3. Research supervision of graduate students (MS, PhD but not MA) and postdocs.

4 points are awarded for each graduate student or postdoc advised in research.

4. Research supervision of undergraduate students (registered for credit).

2 points are awarded for each undergraduate student (brief report required).

5. Research supervision of high school students. (6 points max.)

2 points are awarded for each high school student (brief report required).

6. Student advisement (6 points max)

1 point is awarded for each undergraduate or graduate student advised not associated with research.

7. Other contributions to teaching. (12 points max.)

**III. Allocation of Points for Scholarly Activity, including Professional Development.**

- 1a. Papers published in refereed scientific and science education journals.
  - 6 points for each regular paper.
  - 2 points for papers in refereed conference proceedings .
- 1b. Books published (40 points each). This will be pro-rated if the faculty member has co-authors.
- 1c. Review articles (4 points each in addition to the 6 points for a refereed paper).
2. Talks presented at science and science education conferences.
  - 4 points for each invited talk.
  - 1 points for each contributed talk.
3. Seminars and colloquia presented.
  - 3 points for each colloquium or seminar.
4. Grant proposals submitted.
  - 4 points for each grant proposal submitted.
5. Active grants

Grants generate merit point ( $M$ ) according to the formula  $M = 6N + 4I^{1/2}$ , where  $N$  is the number of grants active on August 1<sup>st</sup>, and  $I$  is the combined amount of overhead (in thousands of dollars, and allocated to the Department). For grants with more than one faculty investigator, the principal investigator defines the fraction of the grant that is assigned to each. Both  $N$  and  $I$  are prorated accordingly.
6. Resources in kind
  - 2 points are awarded for each successful proposal for observation time, beam time or computing time using resources external to the department.
7. Support of students
  - 6 points for each graduate student supported
  - 2 points for each undergraduate student supported
8. Other contributions to research. (24 points max.)

#### **IV. Allocation of Points for Service Activity**

1. Departmental committees, including thesis and search committees.
  - 6 points for chairing a committee (except a thesis committee)
  - 2 points for being a member of a committee. (in the case of a thesis committee, only in the year that the thesis is completed.)
  
2. College and University committees.
  - 6 points for chairing a committee
  - 2 point for being a member of a committee.
  - 2 points for A&S or Faculty Senate or AAUP representative.
  
3. Administrative duties.
  - 20 points for being the Director of the Undergraduate or Graduate Program, the Associate Chair or the Bartol Director.
  - (No additional points are given for *ex officio* membership of a number of committees as identified on the committee assignments list.)
  
  - 6 points for being the Director of a consortium
  
4. Conferences, workshops or symposia. (SOC or LOC).
  - 4 point for being on the Scientific Organizing Committee or Local Organizing Committee of a conference, workshop, school or symposium.
  - 10 Points for organizing a conference, workshop, school or symposium.
  - 10 points for editorial duties, associated with proceedings.
  
5. Professional organizations and Journals.
  - 4 point for serving as an officer or committee member or panel member of a professional organization.
  - 10 point for editorial duties, associated with a Journal
  
6. Reviewing of grant proposals and refereeing of papers for journals.
  - 1 point for each proposal or paper reviewed.
  
7. Participation in panel reviews, 6 points per panel.

8. Outreach activities, 3 points per event, up to a maximum of 12 points.

9. Other activities that enhance or improve the University as a service community. (12 points max.)