

**Physics & Astronomy  
D-PTRC  
Definitions & Enhancements**

Approved by Department November 17, 2005 (date)

Approved by Dean November 30, 2005 (date)

Approved by Provost \_\_\_\_\_ (date)

The Department of Physics & Astronomy has adopted enhancements to the University guidelines for tenure and promotion of our faculty. These enhancements, in this document, are identified by and correlated with the same outline headings as in the MTSU policies. These documents, combined, shall constitute the guidelines and policies by which our promotion and tenure decisions will be made. In addition to the enhancements, we provide the definitions and the processes by which we will interpret and execute the MTSU and Departmental policies.

### **Definitions**

The term “physically able” shall be understood to mean that a faculty member has had access to information submitted for review and is not prevented by either geographical location or mental capacity from being involved in departmental deliberations or, is able to access the Internet for purposes of communicating their position on these matters and thereby cast an absentee vote.

We also define the term *quorum*, in the era of Internet, not in terms of the number physically present but the number able to cast a vote or make their thoughts or positions known. A quorum, for purposes of the Departmental Promotion & Tenure Committee (Committee) actions, shall therefore consist of all duly constituted (see below) committee members who are physically able to cast a vote, either by absentee or by proxy .

### **Process Issues**

The department has approved the use of one committee for reviewing and making recommendations for both promotion and tenure of our faculty. The Committee will consist of all tenured faculty members in the department, except for the department chair, having a rank of Associate or Full Professor. Faculty members are excluded from voting in a promotion process for which they are a current candidate. All members of the Committee who are physically able to vote are expected to participate in the vote. A faculty member will not be recommended by the Committee for renewal, tenure, or promotion unless 2/3 of the members vote in favor of such action. The

minimum number serving on the committee will be the number tenured. What constitutes National Recognition in our Promotion and Tenure documents is provided in the Enhanced Research Criteria listed below. Other enhancements to the sections of the MTSU document, identified by the corresponding outline headings, are also listed below.

## Enhancements

### I. Introduction:

The Physics & Astronomy Department accepts the basic criteria for tenure and promotion in the University documents, with the caveats specified in the *Enhancements*.

#### IV.A.4 *Enhanced* General Performance Criteria:

Physics & Astronomy has set a high bar for excellence. National recognition is defined more extensively in section IV.D.3.c that outlines research evaluation criteria. This recognition is realized by publications and presentations of new knowledge that has passed the standard peer or panel review processes in these disciplines, at the national level.

We use a Performance Review Instrument to provide measures and indicators of expectations for teaching, research and service/outreach based upon specific criteria in each of these three categories. Each faculty member's expectations will be based upon a combination of department needs and the faculty member's passions and strengths. This instrument will be used, with written feedback by both the chair and review committee concerning expectations for progress in each review period. This will provide the faculty member seeking tenure and/or promotion a continuing indication of cumulative progress for each review period. We have defined a number of distinguishing qualities in those categories, which must characterize meritorious candidates. In each evaluation report both the P & T committee and the chair must cite those performance areas that are considered deficient and why, in the context of our research criteria outlined in section IV.D.3.c. Feedback given and candidate success in addressing same will be used in subsequent evaluations. To be granted tenure and/or promotion the candidate must meet or exceed expectations for every quality described in the performance review. In this way, the candidate knows at every evaluation point what must be stressed to progress toward their professional goals. All parties have knowledge at each review of all stated expectations, the degree of compliance and what more is needed. Initial overall scores on the Performance Review Instrument will normally be low but increasing each year as this formative feedback is heeded.

#### IV.D.3.c. *Enhanced* Research/Creative Activity Criteria

The Physics & Astronomy Department accepts the basic criteria for tenure and promotion in the University documents, with the following caveats in the area of Research/Creative Activity:

The department does NOT recognize or give credit to publications in state or regional journals. While such may be venues for our undergraduate students, as an experience of the submission process, we do not consider such to be venues expressive of the quality to which we aspire. National recognition in research is realized by publication in the top international refereed journals in physics & astronomy, any of which would be recognized by any current practicing physicist or astronomer as a leading international journal; by presentations in national and regional venues of the various national or international physics & astronomy societies, and by success in securing federal funding from such representative agencies as NSF, DOE, NIH, DOD, and NASA. The department has the same quality expectations for promotion to both ranks, with the history and magnitude of accomplishments being substantially greater for promotion to professor. In terms of Journal Impact Factors (ratio of 'cites' of a journal in a given year to the number of citable articles in the journal in the previous two years), our publication venues generally are within the top quartile for a given research sub area. While Impact Factors could be used as a ranking criterion and although we may use that as a relative gauge, we do not strictly fold that into our quality metric. Some examples include but are not limited to the following:

Applied Physics Letters  
Applied Optics  
Astrophysical Journal  
Physical Review  
Physical Review Letters

For the period of evaluation for tenure and promotion from Assistant to Associate Professor, we expect the applicant to have a combination of papers published in refereed disciplinary journals, modest grants from, or multiple proposals to, national and peer-reviewed programs and significant mentoring of students in research, all consistent with an *emerging* nationally-competitive research program. (Examples of assured-success scenarios might include three publications in quality peer-reviewed disciplinary journals, or two such publications and substantive external funding, with national presentations and significant student involvement in the research program.)

Likewise, during the time since becoming Associate Professor, a faculty member applying for Full Professorship should have established a nationally recognized research program, evidenced by high-quality publications in major peer-reviewed journals, substantial grant and proposal success from nationally-competitive peer-reviewed programs, and a record of presentations and mentored student research, all of which is significantly greater than that required for promotion to Associate Professor. We give full count to a publication with a student first author, in recognition of the primal role played by the professor in conceiving and guiding the research activity to

publication. We also, as a department practice, put students as first author on journal publications if they have been responsible for a majority of the work and the manuscript preparation. The majority of work presented in meeting these criteria should involve contributions of the faculty member to the work while employed at MTSU.

As with publications, presentations are to be in predominantly national and international venues, these generally being regular meetings of the various recognized societies within the discipline. Examples include but are not limited to:

American Association of Physics Teachers

American Astronomical Society

American Geophysical Union

American Physical Society

Optical Society of America

Division Meetings of the APS

IEEE

Invited presentations and plenary talks are weighted much more than contributed talks. Presentation credit is accorded faculty who mentor students in research and guide them in preparation for a presentation at a national venue.

#### IV.E.3.c. *Enhanced* Service & Outreach Criteria

By virtue of the natures of the disciplines of physics and astronomy, and the public interest in and understanding of them, the latter lends itself to greater engagement and understanding by the public. As stewards of the discipline and the public understanding of science, we expect faculty to take opportunities to engage in the diffusion of the knowledge of physics through public lectures, classroom visitations, print and media interviews or articles. However, astronomers will play a larger role in this type of public outreach out of pure preferences of the public. Our Performance Review Instrument provides for both astronomers and physicists to achieve an individual balance in the general responsibilities of teaching, research and service/outreach. To enhance that, we recognize, as a part of research, service & outreach that results in public education but also gathers data for research on public attitudes toward and utilization of our resources and service. Thus, while those expending considerable effort on community service provide a greater proportion of department service to the community, they can position themselves to receive credit for research in the public interest by counting presentations of these results and grant funds to support such investigations as a part of the department research portfolio.