

# **The Metropolitan State College of Denver Department of Physics**

## **Criteria and Guidelines for Tenure**

Last Revised: April 2012

### **Departmental Role and Mission Statement**

Physics is fundamental to the study of natural phenomena, and the discoveries that physicists have made have had an immense impact on the world. Some knowledge of physics is an important component of being an educated person, and a deeper knowledge of physics is necessary for understanding other areas of study, e.g., engineering, aerospace science, and medical professions. MSCD's Physics Program contributes to the general education, academic major, and professional preparation missions of the college. The Physics Program:

- offers coursework leading to either a B.S. or a B.A. in physics. Students preparing for work in industry or for graduate school are encouraged to earn a B.S. Students interested in teaching are encouraged to take a B.A. Experimental and computational options are offered for each degree.
- enables students to obtain a minor in physics.
- offers courses needed by students majoring in other areas such as engineering technology, chemistry, meteorology, and aerospace science.
- provides General Studies courses, including astronomy, for all MSCD students.
- prepares students for post-baccalaureate study in physics or in a profession, e.g., medicine, dentistry, engineering.

MSCD's Physics Program is offered in conjunction with the Physics Program at the University of Colorado at Denver. The single curriculum is taught jointly by the two faculties. Students can easily enroll in either institution's classes. The courses are not in the common pool; rather courses are listed in the class schedules as regular MSCD (UCD) classes even if the instructor is from the other institution.

## **General Application of Guidelines for Achieving Tenure**

- (1) In preparing for the tenure review the faculty member will need to document the degree of contribution for each of the criteria for the three categories (Teaching, Scholarly Activities, and Service) outlined below. Both qualitative and quantitative criteria will be considered.
  
- (2) **Student Ratings of Instruction:** All annual performance reviews shall include student ratings of instruction for all classes assigned using the approved “Student Ratings of Instruction” form (except for field experiences and internships as determined by the Department). Classes with five or more students must be evaluated using the approved student ratings instrument, and shall be administered at the end of the Fall and Spring semesters and tabulated by the College’s Office of Institutional Research. Classes with fewer than five students must be evaluated according to Department Guidelines.

**Specific Guidelines for the Awarding of Tenure:** Outlined below are specific criteria and standards for the evaluations of faculty performance.

**Contractual Responsibilities:** The faculty member must meet the contractual responsibilities defined in the MSCD HANDBOOK as necessary for a MEETS STANDARDS performance rating.

# **I. EVALUATION STANDARDS FOR TEACHING**

Teaching is the act of creating and maintaining an environment which enhances the opportunities for student learning and discipline-related growth; it includes advising students to facilitate graduation and to transition to post baccalaureate careers or further educational opportunities.

Effective teachers display knowledge of their subject matters in the relevant learning environment (classroom, on-line, hybrid, field work, etc.), which typically includes the skills, competencies, and knowledge in a specific subject area in which the faculty member has received advanced experience, training, or education.

**GUIDELINE TO ACHIEVE TENURE:** In their narrative, the tenure candidate must explain their approach to teaching relating to the following aspects of teaching:

1. Design of courses and contribution to curriculum development;
2. Integration of scholarly activities and knowledge into teaching;
3. Use of technology to facilitate student learning; and
4. Use of assessment results to improve their courses when appropriate.
5. The faculty member also discusses student advising, linking it with their courses, scholarly activities and professional service, as appropriate.
6. The faculty member has SRI's (student review of instruction) using the approved form for all academic year classes with 5 or more students or when less than 5 students, they are evaluated according to departmental guidelines.
7. A single summative peer observation at the college level is required for evaluation for tenure. A departmental-level summative peer observation is also required for evaluation for tenure.

The tenure candidate should reflect on their growth in teaching through the probationary period.

Given the typical full teaching load in the Physics Department, which often includes laboratory or computer intensive courses, it should be noted that teaching is the most highly valued and critical area of performance.

<p><b><u>Needs Improvement:</u> This rating simply means the faculty member has not accomplished the necessary activities to attain the “Meets Standards” rating.</b></p>	<p><b>NEEDS IMPROVEMENT – TEACHING</b></p> <p>During the tenure probationary period, the faculty member does not meet the criteria for “Meets Standards.” During the period leading up to tenure review, the faculty member has made minimum progress towards becoming an effective teacher.</p>
<p><b><u>Meets Standards:</u> This performance level demonstrates the minimum required accomplishments for a faculty member.</b></p>	<p><b>MEETS STANDARDS – TEACHING</b></p> <ol style="list-style-type: none"> <li>1. Each course is kept current through review of instructional resources and the regular addition of new materials, as appropriate. Narrative describes how courses are designed and delivered using multiple approaches to facilitate student learning. Expectations for student learning and performance are clearly communicated in syllabi. For all sections taught, the tenure candidate has designed their course meeting departmental and college expectations. Faculty member contributes to evaluation and redesign of departmental curriculum.</li> <li>2. Faculty member uses professional expertise and ongoing scholarly activities to improve courses and enrich student learning.</li> <li>3. Faculty incorporates available and appropriate computer and laboratory technology into courses.</li> <li>4. Faculty demonstrates evidence of using course and program assessment results to improve courses. Assessment of general studies courses comply with departmental and college requirements.</li> <li>5. Faculty thoroughly and accurately advises students, using professional knowledge and contacts when possible. Writes reference letters for students seeking employment or admission to</li> </ol>

	<p>graduate school.</p> <ol style="list-style-type: none"> <li>6. Sri's are compared to same level courses (lower or upper division) within the prefix. Tenure candidate's Sri's are within one standard deviation of the prefix average for the same level course. If substantially below, the candidate shows a trend of improvement toward the prefix average for same level courses and the narrative addresses work toward improving student ratings of instruction.</li> <li>7. Summative peer observation addresses appropriate pedagogy to facilitate student learning. Faculty member thoroughly and accurately advises students, using professional knowledge and contacts when possible.</li> <li>8. Faculty member meets the minimum Handbook requirement of five office hours per week.</li> </ol>
<p><b><u>Exceeds Standards:</u> This is a level of superior accomplishment that surpasses the "Meets Standards."</b></p>	<p><b>EXCEEDS STANDARDS – TEACHING</b></p> <ol style="list-style-type: none"> <li>1. Narrative and evidence describes courses that consistently create an outstanding learning environment for the students. Assigns challenging assignments and provides extensive feedback for assignments. The courses are continuously updated and modified to improve content, delivery and design to facilitate student learning. Faculty designed their courses meeting departmental and college expectations including the student learning outcome expectations. Faculty member contributes significantly to evaluation and redesign of departmental curriculum. Develops new courses as appropriate; substantially revises existing courses including the official course syllabus.</li> <li>2. Faculty member incorporates examples of their scholarly activities into their courses and student assignments, thereby modeling scholarship in the discipline for students. Undergraduate research is incorporated into upper-division courses. Brings outside experts into the classroom.</li> <li>3. Extensive use of various types of technology. Examples include introducing new software or laboratory techniques into courses and designing professional activities preparing students for</li> </ol>

the work force and post-graduate studies.

4. Faculty uses program and course assessment to continuously improve student learning. Faculty member makes important contributions to the design and implementation of program assessment. Assessment of general studies courses is consistent with exemplary courses that satisfy the college-level student learning outcomes.
5. Faculty spends extensive time advising students, providing them with multiple options and extensive information. Faculty uses professional contacts and knowledge to inform their advising and to provide students with information regarding opportunities. Writes numerous high-quality reference letters for employers or graduate schools. Provides opportunities outside of class that enhance student learning.
6. Sri's are consistently above prefix averages for same level (lower or upper level) courses.
7. Summative peer observation describes outstanding pedagogy facilitating student learning.
8. Faculty member spends substantial time outside of office hours advising students

## **2. EVALUATION STANDARDS FOR SCHOLARLY ACTIVITIES**

Scholarly and creative activities are disciplinary or interdisciplinary expressions or interpretations that develop ideas, frame questions, create new forms of representation, solve problems, or explore enduring questions.

**GUIDELINE TO ACHIEVE TENURE:** Tenure candidate must demonstrate in their portfolio narrative and annotated C.V. that they have made one or more contributions to their discipline. The candidate must also demonstrate that they have developed professionally during the probationary period. It should be noted that a typical full teaching load in the Physics department, which may include laboratory or computer intensive courses, leaves scholarly activities as a lesser weighted area of performance than teaching due to the heavy time commitment to teaching.

<p><b><u>Needs Improvement:</u> This rating simply means the faculty member has not accomplished the necessary activities to attain the “Meets Standards” rating.</b></p>	<p><b>NEEDS IMPROVEMENT – SCHOLARLY ACTIVITIES</b></p> <p>During the tenure probationary period, the faculty member does not meet the criteria for “Meets Standards.” During the period leading up to tenure review, the faculty member has made minimum progress towards a scholarly work or has not developed professionally.</p>
<p><b><u>Meets Standards:</u> This performance level demonstrates the minimum required accomplishments for a faculty member.</b></p>	<p><b>MEETS STANDARDS – SCHOLARLY ACTIVITIES</b></p> <p>Creative work and scholarly activity supports classroom instruction. The faculty member participates in ongoing scholarly activities that enhance the student learning environment.</p> <p>Examples may include but are not limited to:</p> <ul style="list-style-type: none"> <li>• maintaining currency in physics and physics education research;</li> <li>• using physics education research pedagogical methods in the classroom</li> <li>• selecting appropriate assignments tied to physics research topics;</li> <li>• developing research material to be used in classes.</li> </ul> <p>Faculty member engages in development of professional knowledge.</p> <p>Examples may include but are not limited to:</p> <ul style="list-style-type: none"> <li>• publishing research results;</li> <li>• developing computer applications, software, or videos for courses;</li> <li>• collecting and gathering data for research and/or teaching purposes;</li> <li>• attending local, national, or international disciplinary, specialized industry, or pedagogical</li> </ul>

	<p>conferences, meetings, workshops, or field training excursions, even if not presenting;</p> <ul style="list-style-type: none"> <li>• attending certification or training classes that will result in additional opportunities to train students in the classroom;</li> <li>• applying for internal or external funding for research, teaching, or equipment;</li> <li>• supervising undergraduate research/projects;</li> <li>• participating in consulting activities that enhance professional development and teaching;</li> <li>• sharing examples, projects, class notes with others in the department.</li> <li>• attending departmental or college workshops;</li> </ul>
<p><b><u>Exceeds Standards:</u> This is a level of superior accomplishment that surpasses the “Meets Standards.”</b></p>	<p><b>EXCEEDS STANDARDS – SCHOLARLY ACTIVITIES</b></p> <p>Creative work and scholarly activity beyond the Meets Standard Criteria for creative and scholarly activities. This criterion may include activities in which the faculty member shares knowledge with members of the learned and professional communities, other than students, and which are related to the faculty member’s discipline or area of instruction, and consist of continued education and professional development activities appropriate to professional assignments.</p> <p>Examples may include but are not limited to:</p> <ul style="list-style-type: none"> <li>• publishing or submitting in print and/or electronic media;</li> <li>• engaging in an ongoing active research program;</li> <li>• submitting a grant or professional development application to outside agency or implementing a successful grant internally;</li> <li>• presenting material (or having collaborative material presented) at a regional or national meeting;</li> <li>• writing grant proposals to enhance scholarly work/teaching.</li> </ul> <p>Faculty member is engaged in ongoing or periodic scholarly activity that may result in professional recognition.</p> <p>Examples may include but are not limited to:</p>

	<ul style="list-style-type: none"> <li>• engaging in professional writing;</li> <li>• actively engaging in documented research;</li> <li>• presentation of material at a professional society, meeting, or colloquium;</li> <li>• attending regional/national professional meetings;</li> <li>• serving as a refereed journal reviewer</li> </ul> <p>Faculty member contributes to the body of knowledge of the profession.</p> <p>Faculty member engages in presentation of scholarly activities beyond departmental colleagues.</p>
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### **3. EVALUATION STANDARDS FOR SERVICE ACTIVITIES**

Faculty engage in service when they participate in the shared governance and good functioning of the institution; service to the institution can be at the program, department, school, or college level. Beyond the institution, faculty engage in service when they use their disciplinary and/or professional expertise and talents to contribute to the betterment of their multiple environments, such as regional communities, professional and disciplinary associations, nonprofit organizations, or government agencies.

**GUIDELINE TO ACHIEVE TENURE:** Tenure candidate must demonstrate in their narrative that they have participated in shared governance and other service at the college, and used their disciplinary or professional expertise to make a contribution to their professional organizations or the community outside of the college.

<b><u>Needs Improvement:</u> This rating simply means the faculty member has not</b>	<p><b>NEEDS IMPROVEMENT -SERVICE</b></p> <p>During the tenure probationary period, the faculty member does not meet the criteria for “Meets</p>
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<p><b>accomplished the necessary activities to attain the “Meets Standards” rating.</b></p>	<p>Standards”. The faculty member has made minimum progress in the area of service to the Department, the School and/or the College, or the Outside Community.</p>
<p><b><u>Meets Standards:</u> This performance level demonstrates the minimum required accomplishments for a faculty member.</b></p>	<p><b>MEETS STANDARDS - SERVICE</b></p> <p>During the tenure probationary period, the faculty member demonstrates he or she has made significant contributions in shared governance and other service to the Department, School and/or College and within their disciplinary organization(s) or contributions using their disciplinary expertise to the community outside of the College. While these contributions often take the form of significant committee work, they may also include such activities as maintaining departmental laboratories and equipment.</p> <p>Examples of service activities that meet standards might include the following:</p> <ul style="list-style-type: none"> <li>• Participating in Departmental committees of shared governance;</li> <li>• Participating in School, College or Campus wide committees;</li> <li>• Maintaining and/or enhancing teaching or research facilities for the Department, School and/or College;</li> <li>• Membership in advisory boards of professional journals;</li> <li>• Membership in special committees of professional organizations;</li> <li>• Occasional reviewer for a national research grant funding institution;</li> <li>• Occasional reviewer of submissions to professional journals;</li> <li>• Membership in local, statewide or national community organizations that relate to field of expertise.</li> </ul>
<p><b><u>Exceeds Standards:</u> This is a level of superior accomplishment that</b></p>	<p><b>EXCEEDS STANDARDS - SERVICE</b></p> <p>During the tenure probationary period, the faculty member demonstrates that they have taken an ongoing leadership role in committee work, special projects or other service activities in the Department, School or</p>

<b>surpasses the “Meets Standards.”</b>	<p>College and in their disciplinary organization(s) or in the greater community. Work outside of the College must utilize their disciplinary or professional expertise. This work must be notable and significant and includes but is not limited to Chair of a Committee or Officer of a regional, national or international organization.</p> <p>Service activities that would exceed standards might include the following:</p> <ul style="list-style-type: none"><li>• Chairing or Co-Chairing Departmental committees;</li><li>• Chairing or Co-Chairing School, College or Campus wide committees;</li><li>• Enhancing teaching or research facilities for the Department, School and/or College;</li><li>• Positions of leadership in editorial boards of professional journals;</li><li>• Positions of responsibility (e.g., Director, Treasurer, Secretary) in committees and/or sections of professional organizations;</li><li>• Permanent reviewer for a national research grant funding institution;</li><li>• Permanent reviewer of submissions to professional journals;</li><li>• Position of leadership in local, regional or national boards.</li></ul>
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