

## **Primary Unit Criteria for Reappointment, Promotion, and Tenure for Tenure Track Faculty in the Department of Physics**

### Governing Rules and Policies:

1. Regent Policy 5.D: Reappointment (to a tenure-track position), Tenure and Promotion
2. Administrative Policy Statement 1022: Standards, Processes and Procedures for Reappointment, Tenure, Promotion, and Post-tenure Review
3. Campus Administrative Policy 1004: Reappointment, Tenure and Promotion Review

### **A. PREAMBLE**

1. Tenure and promotion decisions are among the most important ways that a faculty identifies, encourages, and sustains excellence in its members. Excellence is demonstrated by meeting standards based on identified and measurable criteria that are relevant, equitable, and consistent with the goals of the academy and with academic freedom, and must be achieved in accordance with the highest ethical and professional standards.
2. The criteria for promotion and tenure are listed below according to the traditional categories of teaching, scholarly/creative work, and leadership and service. These follow the categories and criteria that are used for Annual Faculty Merit Evaluation, but superior Faculty Merit Reviews do not necessarily lead to positive recommendations for tenure and/or promotion. Faculty Merit Evaluation and Promotion and/or Tenure are decoupled processes, differentiated by several factors. During Promotion and/or Tenure review, external reviewers are consulted in the evaluation of a candidate's record. This does not occur during Annual Merit Evaluation. During Promotion and/or Tenure review, extensive evaluation of a candidate's record occurs at levels beyond the department using the criteria established in these Primary Unit Criteria. This includes the Dean's Advisory Committee, the Dean, and the Vice Chancellor for Academic Affairs' Advisory Committee, the Executive Vice Chancellor for Academic Affairs (Provost), the Chancellor, and in the case of tenure, the President and the Board of Regents. This does not occur during Faculty Merit Evaluation. A candidate's overall record must also demonstrate accountability, responsibility and continuing commitment consistent with an ability to maintain the quality of that record.
3. These approved criteria, called the "primary unit criteria," shall be subject to periodic review and approval by the Dean and review and approval by the Provost. All primary unit criteria shall be in writing and shall be included in the candidate's dossier or made available electronically to individuals and committees involved in higher levels of review. This primary unit criteria will also be made available by the head of the primary unit to each faculty member at the time of initial hiring/appointment.

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Approved by the Provost on December 3, 2020

Effective: July 1, 2020

## **B. DEPARTMENT-SPECIFIC DEFINITIONS, POLICES AND PRACTICES**

1. The Department Chair is responsible for informing candidates about reappointment, tenure, and promotion, about the schedules of reviews, their processes, and criteria.
2. A departmental review committee whose voting members will consist of all tenured faculty at or above the rank to which the candidate aspires shall evaluate the faculty member's record of achievement by applying the standards required for tenure and/or promotion.
3. In cases where it is deemed important, equally qualified members of other departments within the university may be invited to serve as voting members of the review committee. The expectations of the faculty member for promotion in the Department are detailed below for the three areas of scholarly endeavors (teaching, research/scholarly/creative work, and leadership and service).

## **C. Comprehensive Review**

1. Tenure-track faculty members usually undergo comprehensive review in the fourth year of their appointment at CU Denver, although individuals may request an early comprehensive review for good and sufficient cause.
2. Criteria for Reappointment at Comprehensive Review: Faculty members undergoing comprehensive review will be rated as "approaching excellent," "approaching meritorious," or "not meritorious" in each area of responsibility (Teaching, Scholarly/Creative Work, Leadership and Service), based on the tenure criteria listed in section F.

## **D. Early Tenure**

The granting of tenure and promotion to Associate Professor typically occurs in year seven of the tenure-track faculty member's appointment. The standards of performance that apply to faculty members on the seven-year tenure clock apply to faculty members who come up for early tenure. They must have a record of achievement in teaching, research, scholarly or creative work, clinical activity, and leadership and service that is equal to the record expected of a faculty member coming up in the seventh year. Additional criteria or higher standards cannot be applied to candidates for early tenure. Department chairs and mentors have a responsibility to counsel tenure-track faculty on the wisdom of coming up for early promotion or tenure. An unsuccessful candidate for early tenure from the Department who withdraws their case before being denied at the level of Provost or Chancellor, may reapply within the existing tenure clock.

## **E. External Evaluators**

The primary unit shall request evaluations in writing by scholars from outside the university and from various locations who are qualified to judge the candidate, using a solicitation letter following the college-approved format. Such outside evaluations are mandatory in cases of recommendations for tenure and promotion. Comprehensive reviews may also include external evaluations, as determined by the college or unit policy.

The Process for Selecting External Evaluators uses a Masked peer-review documentation of research and creative activities plays an essential role in the evaluation of research, scholarly, and creative work. Candidates should submit a portfolio to be evaluated by qualified external reviewers in a masked, peer-review process.

1. Selection of external evaluators shall be undertaken by the primary unit; the candidate shall be given the opportunity to suggest possible evaluators and indicate specific scholars whom the candidate feels should be excluded from consideration.
2. Care must be taken to exclude any evaluators whose evaluations may constitute a conflict of interest, such as a dissertation director. A minimum of three external letters shall be added to the file; however, campuses, schools/colleges/libraries may require a greater number of letters.
3. The portfolio is sent out by the Primary Unit for evaluation.
4. All letters that are received must be included in the candidate's promotion or tenure dossier. These letters must be treated as confidential; they shall not be shared with the candidate. Primary unit letters should include summaries of key comments by evaluators, with all identifiers removed to preserve confidentiality.
5. In the case of faculty hires with tenure, the process of requesting external evaluator letters differs in accordance with system and campus policy on the matter. See: [Administrative Policy Statement 1022 Standards, Processes and Procedures for Reappointment, Tenure, Promotion, and Post-Tenure Review](#) and [Campus Administrative Policy 1021 Hire With Tenure](#).

## **F. Promotion, Tenure and Reappointment Criteria**

### **1. Teaching**

- a. As stated in Regent Policy 5D, tenure may be awarded only to faculty members with demonstrated meritorious performance in each of the three areas of: teaching (or librarianship), scholarly/creative work, and leadership and service (to the university, profession and/or public); and demonstrated excellence in either teaching, or scholarly/creative work. The Physics Department's criteria for a designation of "meritorious" or "excellent" in each of the relevant categories are listed below.

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- b. Associate professors should have the terminal degree appropriate to their field or its equivalent, considerable successful teaching experience, and increasing accomplishment in research, scholarship/creative activity and/or clinical service/professional practice.
- c. Promotion to Associate Professor with Tenure requires that the candidate demonstrate and clearly document a record of high-quality research that indicates the potential for sustained accomplishment throughout their career.
- d. Candidates for tenure and promotion to Associate Professor rank are expected to have demonstrated meritorious performance, in each of the three areas of teaching, scholarly/creative work, and leadership and service to the University and the faculty member's profession and demonstrated excellence in either teaching or research and creative work.

**a. Teaching expectations:**

- The CU Denver Physics Department's instructional mission is three-fold: (1) to provide non-science majors with an appreciation and understanding of the conceptual foundations of physics and of the methods of science; (2) to provide science and engineering majors with the skills and knowledge required to understand physical systems and quantitatively analyze these systems; and (3) to graduate physics majors prepared to succeed in graduate school and/or a career in industry.
- The Physics Department offers a number of service courses to fulfill requirements for the Core Curriculum. There are other courses which are of topical interest. Students in these classes are often "captive audiences" with varied preparation for measurement, mathematics, or problem solving. Faculty in these courses strive to maintain excitement and interest among the students without sacrificing rigor in the curriculum.
- The Physics Department offers both algebra-based and calculus-based introductory physics (each a two-semester sequence), a course in modern physics, and other electives. Students in these classes learn, in addition to a foundation of conceptual understanding, problem-solving skills which they will use regularly throughout their career. They are prepared for advanced courses in their major upon completing these physics courses.
- The Physics Department offers a high level of instruction in advanced physics as well as opportunities for students to obtain experimental and theoretical research experience as undergraduates. This is a very important mission despite the small number of student credit hours generated. In fact, the success of our majors in finding employment or being admitted to a graduate program often directly relates to their experiences beyond normal classroom instruction, whether or not these experiences produce significant student credit hours.
- In light of the above teaching missions, the specific expectations regarding teaching are as follows:

Faculty members shall demonstrate a dedication to teaching and accessibility to students. The faculty member should be reliable in meeting with the students regarding office hours as well as making and keeping appointments. Faculty members shall be knowledgeable in a broad range of undergraduate physics topics and demonstrate the ability to provide high-quality teaching across a broad range (that is, a sampling of various student groups and levels) of undergraduate physics instruction, including mentoring of independent-study students, directed research students, and undergraduate thesis advising. There must be some quality control that demonstrates that courses are taught in a rigorous manner. Outcomes assessment is important. Attention to grade inflation is also important. It is expected that a grade distribution be an honest reflection of the diversity of talents, abilities, and degrees of learning by the students.

**b. Teaching criteria:**

In accordance with Regent Policy, a recommendation of tenure based on excellence in teaching work shall include multiple measures of teaching evaluation and demonstrated achievement at the campus, local, national, and/or international level which furthers the practice of scholarship of teaching and learning beyond one's immediate instructional setting. Each candidate's record of teaching is assessed according to impact beyond the campus which may include student evaluation ratings, course rigor and difficulty, and program objectives.

(1) Meritorious: Teaching will be considered *meritorious* when the evaluation process demonstrates that:

- The candidate has made a positive and constructive impact on the intellectual development of students in the context of formal course work;
- The candidate has participated actively in curriculum development, student advising, and individual instruction through directed research or independent studies courses;
- The candidate has genuine commitment to teaching excellence and creates an environment of mutual respect with their students;
- The candidate demonstrates a commitment to the department teaching mission and needs.

(2) Excellent: To be excellent in teaching for tenure/promotion, a candidate needs to include multiple measures of teaching evaluation and demonstrated achievement at the campus, local, national, and/or international level which furthers the practice and/or scholarship of teaching and learning beyond one's immediate instructional setting. The *excellent* distinction will be given to those candidates who demonstrate truly superior commitment to and success in teaching. Such candidates are thought of as outstanding teachers who exceed the *meritorious*

performance standards and who are recognized by both students and faculty as having a significant impact on teaching at CU Denver and beyond. In addition to the meritorious teaching criteria, the following criteria will be considered for establishing excellent performance in teaching.

- (3) In the classroom, an *excellent* candidate must clearly meet three of the following criteria:
  - a) Faculty Course Questionnaires (FCQ) consistent with a teacher who is effective in conveying knowledge in the classroom and who is teaching rigorous courses;
  - b) Innovation, demonstrated by such things as consistent revisions to syllabi and the incorporation of new technologies or methods in the classroom;
  - c) Student learning, demonstrated by such things as excellent student outcomes, teaching awards and honors, peer evaluation;
  - d) Demanding teaching load: consistent teaching of large sections and/or required courses.
  
- (4) To demonstrate achievement at the campus, local, national, and/or international level which furthers the practice and/or scholarship of teaching and learning beyond one's immediate instructional setting, an *excellent* candidate must clearly meet three of the following criteria:
  - a) Individual mentoring of students through independent studies, directed research, internships, supervising undergraduate and graduate theses, mentoring students in their preparation of presentations for professional meetings or publications, publishing with students, or integrating students into their research projects.
  - b) Sustained outreach to public schools or other sustained extracurricular teaching contributions within or outside the university;
  - c) Evidence of positive impact on teaching in the discipline, such as citations of publications or presentations related to teaching, or authorship or co-authorship of a critically reviewed textbook or other educational materials that have been adopted by others; Other intellectual and widely disseminated contributions related to teaching (e.g. creation of workshops or short courses, development of new programs, development of a Massive Open Online Course (MOOC) or online simulation, etc.);
  - d) External letters documenting the faculty member's impact on efforts to improve the quality of teaching in the discipline;
  - e) Evidence of a leadership role in designing and implementing curricular redesign that has been adopted by other institutions;
  - f) Evidence of a leadership role in designing and implementing effective assessment practices for student learning within the discipline beyond the campus;

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- g) Published research or externally funded research designed to improve pedagogy or both;
  - h) Institutional, national, or international teaching awards that recognize contributions to the discipline (e.g., pedagogical innovation, curricular redesign).
- (5) The evidence for evaluation of teaching may include but is not limited to:
- The quality of course materials such as syllabi, handouts, tests, etc.;
  - The effort put into outcomes assessment of student success;
  - Frequency and quality of individualized instruction;
  - Classroom visits by colleagues, professionals, or experts for the purpose of student learning;
  - Student course evaluations with special attention to written comments and the understanding that evaluations will reflect a bias related to the student's desire to be in any specific course;
  - Scholarly research and publication on teaching;
  - The absence of valid complaints;
  - Student research projects produced;
  - Incorporation of new material into existing courses to keep up with current issues in the fields covered in the course;
  - Evidence of rigor of learning experience;
  - Evidence of risk-taking to enhance learning;
  - Alumni opinions within 2-5 years of graduation;
  - Involvement in the Department's teaching mission;
  - Professional development related to teaching and learning;
  - Creation of course material for a specific course;
  - Re-designs of course material for a specific course;
  - Publication of laboratory or other manuals to be used in conjunction with teaching;
  - Grants in support of teaching and learning;
  - Teaching awards and honors.

## 2. Scholarly/Creative Work

- The goal of research in the department and college is to generate new knowledge that advances a field of inquiry or practice. In evaluating the record, the Primary Unit will consider both the candidate's cumulative performance (including all work published prior to the probationary period) and the extent to which the candidate has demonstrated increasing accomplishment in scholarly/creative work since joining the Physics Department and/or receiving tenure. In accordance with Regent Policy 5D, a recommendation of tenure and/or promotion based on excellence in teaching or scholarly/creative work shall include evidence of impact beyond the institution, as determined herein.

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**a. Scholarly/Creative work Expectations:**

- (1) A long-held goal of the CU Denver Physics Department has been the development and maintenance of an active research program at CU Denver that would bring national recognition to the faculty and would actively involve students in the research. The goal here is three-fold: to enhance the reputation of CU Denver Physics, improve faculty development, and inspire and educate undergraduates to prepare them for employment or graduate school. All faculty members with research as part of their workload are expected to develop an on-campus research program with significant undergraduate involvement where possible. Research is defined as an activity that has a reasonable potential to add to the body of knowledge in physics. This could include, but is not limited to, the development of techniques that enhance the acquisition of knowledge, or applications to the solution of significant problems. Faculty members will produce a clear and convincing demonstration of a commitment to and significant progress toward the development of a viable, competitive, CU Denver based research program.
- (2) The production of research of the highest quality is demonstrated with peer-reviewed publications, and to a lesser extent, abstracts and presentations at conferences. The securing of grants will be viewed favorably as enhancing the potential for research. However, it must be kept in mind that writing grants and obtaining them is a means to an end and not an end in itself.
- (3) While scholarly/creative work can take a variety of forms (e.g. individual research, small collaborative research, large collaborations, experimental, theoretical....) it is expected that faculty members will have a well defined research program that highlights their individual accomplishments or their identifiable contributions to a collaboration or both. It is also recognized that faculty members research may be a combination of individual and collaboration and that roles will change over time. Faculty members' scholarly/creative work will be evaluated in the context of the nature of their research. For example, in some fields it might be expected that a faculty member in the early stages of their career be the first author on published papers, but some fields always list authors alphabetically and others may have a long author list due to the nature of a large collaboration project.

**b. Scholarly/Creative work Criteria:**

- (1) Meritorious: Research will be considered *meritorious* when the evaluation process demonstrates that:
  - The candidate has a coherent and thriving program of research;
  - The candidate is committed to an ongoing career of research;
  - The candidate has a record of regular research dissemination evidenced by



peer-reviewed journal articles and conference presentations or colloquia or both.

(2) **Excellent:** The *excellent* distinction will be given to those candidates who demonstrate superior work, as evidenced by major publications, grants, or other recognition of superior performance. In addition to the meritorious research criteria, the following criteria will be considered for establishing excellent performance in research:

- Peer reviewed research awards or prizes;
- Major external research grants or fellowships;
- Superlative reviews of publications or manuscripts;
- Excellent placement of scholarship with high-impact journals;
- Significant impact on the scholarly work of a field.

(3) The evidence for evaluation of research may include but is not limited to:

- Books and monographs published;
- Refereed articles or chapters published in Journals, Periodicals, Books, or Scholarly Encyclopedias (where manuscript submission policy includes peer review);
- Conference proceedings (peer-reviewed or non-peer-reviewed);
- Scholarly work in the form of open-source software or published code;
- Non-refereed articles or chapters published in Journals, Periodicals or Books;
- Creative works published in any form that serve to enhance or otherwise benefit the physics community;
- Published reviews;
- Published abstracts;
- Presentations in the form of workshops, seminars, or colloquia;
- Proposals written for external funding;
- Public lectures disseminating the research of one's group;
- Efforts towards ensuring the reproducibility of published results;
- Works in progress;
- Research awards and honors.

### **3. Leadership and Service**

#### **a. Leadership and Service Expectations:**

It is the policy within the Physics Department to encourage faculty to serve the University where their skills are most needed, and in roles in which the individual faculty members are best suited to serve. In some cases, this service role will focus on the internal needs of a small department required to maintain smooth day-to-day operations. In other cases, the service role may focus on outreach programs or other

methods for enhancing the visibility and relevance of the department and/or university in the community at large.

It is often more effective to do a few things well rather than to do many things with mediocrity. As a small department, the physics faculty also recognizes that service duties may be more concentrated within the departmental unit than in wider-ranging campus and University activities. Therefore, the specific service expectations are as follows. There shall be a serious, sustained, and active effort of service, performing difficult tasks with colleagues where the effort is most needed. Acceptable service contributions may be focused in one or two arenas, and these may be expected to be weighted toward departmental service. It is expected that when serving in a committee or in general within the department itself, that an atmosphere of collegiality, team spirit, and mutual professional respect shall prevail. A professional demeanor and behavior are expected from all members of the department at all times. It is also expected that a faculty member attend meetings regularly both from specific committees to which the faculty member is assigned, as well as to normal departmental functions. In an effort to try to standardize the CLAS service and leadership expectations a task force has come up with a list that is included here as follows:

- Faculty service is an important aspect of our jobs. For most of the tenured/tenure-track faculty on campus, the service portion represents 20% of our contract.
- Faculty are members of an academic community that spans departments, the College and the University. As the University supports faculty members, they are expected, in turn, to support the University. Service within the university should span multiple levels and should not be concentrated in only one area (for example, only within one's department).
- Service to the profession and other extramural service is encouraged, as it increases the visibility of the faculty member as well as the University.
- Expertise-relevant community service is also an important aspect of the mission of CU Denver, as it encourages outreach and increases our collective visibility to the non-academic community.
- We understand the need to promote excellence in research and teaching among our junior colleagues, we also recognize that service is a key component to professional development (and, again, part of the job), and as such should not be discouraged among faculty at any level. Service contributions should "grow" as faculty members approach the tenure decision. Such strategic development is vital to our pre-tenured faculty.
- For junior and senior faculty alike, weak service, while not a sole criterion for promotion, can prevent an individual from being promoted.
- As with most facets of the profession, service is often inextricably linked to teaching and research. We encourage faculty members to seek out service opportunities that interest them. The diversity of interests among our faculty members lends itself to the diversity of service opportunities that exist.

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- In the rare cases where course releases (or other compensation) are granted for specific service, such course releases should, by nature, carry with them an expectation of increased service beyond the 20% threshold.

**b. Leadership and Service Criteria:**

(1) Meritorious: Service will be considered *meritorious* when the evaluation process demonstrates that:

- The candidate has, at a minimum, contributed to the mission of the primary unit through cooperative participation on necessary departmental committees and activities, and
- The candidate has found an active participatory role in the university, or the community, or the profession.

(2) Excellent: The *excellent* distinction will be given to those candidates who demonstrate significant contributions to the department, university, and profession. In addition to the meritorious service criteria, the following criteria will be considered for establishing excellent performance in service.

- The candidate has made sustained contributions to one or more college or university committees or programs, and
- The candidate has taken a leadership role in one or more campus committees or professional organizations, or
- The candidate has made a demonstrable contribution of professional expertise to one or more community organizations.

(3) The evidence for evaluation of service may include but is not limited to:

- Membership on Departmental, College, Campus and/or University committees;
- Administrative leadership and service;
- Leadership and service to profession and discipline (state, national, international level), including editorship of journals, committee work, etc.;
- Planning of conferences or workshops in one's scientific field;
- Consultation and public leadership and service.

**4. Criteria for Promotion to Full Professor**

In accordance with Regent Policy 5.D.2. "Standards for Tenure," when a faculty member is evaluated for promotion to full professor, the current primary unit criteria shall apply. From *APS 1022, Standards, Processes and Procedures for Reappointment, Tenure, Promotion, and Post-Tenure Review*, section V.K: "Professors should have the terminal degree appropriate to their field or its equivalent, and (A) a record that, taken as a whole, is judged

to be excellent; (B) a record of significant contribution to both graduate and undergraduate education, unless individual or departmental circumstances can be shown to require a stronger emphasis, or singular focus, on one or the other; and (C) a record, since receiving tenure or promotion to associate professor, that indicates substantial, significant, and continued growth, development, and accomplishment in teaching, scholarly/creative work, and leadership and service.”

Within the Department, excellence in all areas would mean:

- a. Teaching: Demonstration of continuing development of teaching through work on curriculum, development of new courses, contributions to program development for the department or the college, and work with individual students, as noted in the qualifications for excellence in the section concerning promotion to associate professor above.
- b. Scholarly/Creative Work: Demonstration of continuing development of scholarship since tenure through regular peer-reviewed or other types of publication; regular participation in conferences; and other evidence of continuing scholarly activity as noted in the section concerning promotion to associate professor above.
- c. Leadership and Service: Demonstration of engagement with the department, college, campus, and university, as well as professional and community organizations through serving on or chairing committees, leadership in a professional organization, donation of time and expertise to schools or other relevant community organizations, as noted in the qualifications for excellence in the section concerning promotion to associate professor above.