

# Mechanical Engineering Departmental Criteria and Standards for Evaluation of Tenured and Tenure-Track Faculty

This document codifies the Mechanical Engineering Department's criteria and standards for tenured and tenure-track faculty. The purpose of this criteria and standards document is to outline the expectations for a tenure-track faculty member to be judged as excellent or meritorious in teaching, research, and service as they proceed through the tenure and promotion process. The criteria will apply equally to tenured and non-tenured faculty who are on the 40-40-20 evaluation track and will be reflected in their yearly performance review and in tenure and promotion decisions. The University standard for granting tenure is that the faculty member must have a record that is evaluated as excellent in either research or teaching and at least meritorious in the other two categories. The University standard for promotion to full professor is that the faculty member must have a record that is evaluated as excellent overall and have demonstrated significant and sustained growth in research, teaching and service since obtaining tenure. Faculty undergoing evaluation for tenure or promotion are responsible for preparing their dossier in accordance with the University and College policies.

The Mechanical Engineering Departmental criteria for research, teaching and service are:

## I. Research

The fundamental hallmarks of an excellent research record are quality publications and external funding. These hallmarks are integrally related as quality publications are required to attract research funding, and research funding is necessary to support students to maintain publishing productivity. Publications and external funding will be evaluated using a two or three year rolling average for yearly evaluations and using the entirety of the research record at the University of Colorado Denver for tenure and promotion. Evaluation of a faculty member's research record will include appropriate measures of impact.

- To achieve a rating of meritorious in research, faculty must be active in proposal writing to external funding sources and maintain an active publishing record in appropriate journals with some evidence of primary authorship (with the exception of students). Faculty must develop clear research thrusts. Refereed publications in national conferences and patents will count as research activity.
- To achieve a rating of excellence in research, faculty must have demonstrated success as PI in obtaining external funding that includes student support. Faculty should demonstrate sustained effort to obtain funding from competitive external funding sources. Faculty should actively advise student research. Faculty must also maintain an active publishing record in appropriate upper-tier journals with some evidence of

primary authorship (with the exception of students). Refereed publications in national conferences and patents will count as research activity.

## II. Teaching

Faculty teaching responsibilities necessarily include classroom instruction and individual mentoring of students. Faculty may also participate in research in engineering education, college and departmental educational initiatives and other teaching related activities. The nominal teaching load for 40-40-20 faculty is four courses per academic year unless special arrangements are made with the department subject to the Chair's approval and departmental need.

- To achieve a rating of meritorious in teaching, faculty must receive average to good course evaluations where evaluations should include FCQ's and some combination of faculty peer review and other means of assessment. Faculty should individually mentor student projects or theses.
- Excellence in teaching requires the same level of effort as excellence in research. To achieve a rating of excellence in teaching, faculty must have 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.

### Sample Criteria:

- Institutional, national, or international teaching awards that recognize contributions to the discipline (e.g., pedagogical innovation, curricular redesign):
- Evidence of positive impact on teaching in the discipline, such as citations of publications or presentations related to teaching, or authorship of a critically reviewed textbook or other educational materials that have been widely adopted by others;
- External letters documenting the faculty member's impact on efforts to improve the quality of teaching in the discipline;
- Evidence of a leadership role in developing and implementing curricular redesign that has been adopted by other institutions;
- Evidence of a leadership role in designing and implementing effective assessment practices for student learning within the discipline beyond the campus;
- Evidence of inclusion of high-impact practices, inclusive pedagogy, or other teaching strategies followed by evaluation of these tools as effective methods for teaching in the discipline, such that teaching practices across the campus or beyond are positively impacted;

- Published research and/or externally funded research designed to improve pedagogy.

Faculty must also receive good to excellent course evaluations where evaluations should include FCQ's and some combination of faculty peer review and other means of assessment. Faculty should individually mentor student projects or theses. Faculty should be involved in some of the following activities related to teaching: Mentoring GTA's with teaching responsibilities, textbook publishing, and working on college and departmental educational initiatives. Excellence in teaching also requires that the faculty member receives external funding for education activities or equipment and that the faculty member publish in upper-tier venues in engineering education. Excellence in teaching will also require appropriate external review documenting the excellence in teaching.

### **III. Service**

Faculty service is required for the maintenance and improvement of the Mechanical Engineering Program. Departmental service responsibilities include, but are not limited to, developing and assessing the curriculum, advising students and performing various evaluations of faculty performance. Faculty service may also include performing College and University tasks and service to professional and scholarly societies. Faculty are expected to attend College and Departmental meetings. All tenured or tenure-track faculty must maintain a level of service that is commensurate with the 20% evaluation requirement.

- To achieve a rating of meritorious in service, faculty must maintain a service load commensurate with the 20% evaluation requirement. Service may be in any of the areas mentioned above.
- To achieve a rating of excellence in service, faculty must meet the requirement to be meritorious and have performed service that has significant impact.

**Criteria and standards document revised May 19, 2020 to explicitly state Regent Policy 5.D.2(B) requirement for excellence in teaching.**

These criteria and standards have been approved by the Mechanical Engineering Faculty:

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Samuel W.J. Welch, Chair  
Mechanical Engineering Department

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Date

These criteria and standards have been accepted and approved by:

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Martin L. Dunn, Dean  
College of Engineering, Design and Computing

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Date

See memo dated August 6, 2020  
Roderick Nairn, Provost  
University of Colorado Denver | Anschutz  
Medical Campus

August 4, 2020  
Date