

ECE Statement of Criteria, Standards, and Evidence for Reappointment Promotion and/or Tenure (RPT)

Department of Electrical and Computer Engineering
College of Engineering and Applied Science

February 13, 2023

Approved by Provost: 02/13/2023

Introduction:

Standards and processes for reappointment, promotion and tenure of faculty are governed by Article V and Attachment A of the Laws of the Regents. These are further delineated in CU Administrative Policy Statement APS #1022. These documents require the establishment of departmental criteria for reappointment, promotion, and tenure (RPT) which are to be used throughout the review process.

This document specifies criteria that are to be considered as guidelines for the general review of candidates toward reappointment, promotion, and tenure in the Department of Electrical and Computer Engineering (ECE) at the University of Colorado Colorado Springs (UCCS). The department is committed to quality teaching, strong scholarly and creative work, and effective leadership and service to the university, the profession, and the community including diversity, equity, and inclusiveness (DEI). The criteria are based on appropriate and current standards of professional performance in our discipline. Each candidate's case will be reviewed and judged on its individual merits and circumstances. As permitted by APS #1022, the faculty of the ECE Department have elected not to take a vote of the entire primary-unit faculty as a step in the RPT process; instead, the primary unit delegates authority to the Primary Unit Committee (PUC) to act as proxy. The evaluation process assumes that the candidate possesses: an appropriate terminal degree; competent education and training in the discipline(s); conduct which reflects the professional and academic standards for generating, validating, disputing, and transmitting knowledge; and an appreciation of and respect for the rights, duties, and privileges associated with academic freedom and collegial responsibilities.

When these criteria are applied to faculty who were granted time toward tenure, the work performed during the years granted toward tenure shall be considered equivalent to work performed at UCCS. While a faculty member's career record will be considered in personnel actions described here, the main emphasis of evaluation will be on work performed at UCCS and, in particular, progress since the last review.

The candidate is expected to prepare a dossier in support of faculty evaluation. In the assessment of scholarly and creative work, the ECE department places greater weight on elements from the candidate's dossier which have undergone some form of peer review than on those which have not. In cases where an element has not undergone peer review (e.g., reports or articles in the popular press), such material may be submitted to outside readers for evaluation, and those written evaluations should then be submitted as elements in the dossier in support of the candidate's case. The ECE Department encourages collaborative research and so co-authored papers may be considered equivalent to sole-authored papers if the candidate provides clear evidence that he or she has made a significant contribution to the paper. Similarly, candidates are encouraged to submit collaborative grant and contract proposals: the candidate should specify clearly in the dossier the percentage of every such collaborative proposal/project for which he or she is responsible (e.g., by fraction of the total project budget).

For IRC faculty, the criteria for promotion is based on their performance on teaching and service as given in Appendix B.

These criteria can be amended by majority vote of the department subject to approval by the Dean of the College of Engineering and Applied Science and the Executive Vice Chancellor for Academic Affairs.

I. Initial Reappointment Review:

The candidate's total record, including teaching, scholarly and creative work, and leadership and service, shall be evaluated. No specific rating in each area is required, but the record must show sufficient potential for future success to justify reappointment. The review may also take into account mitigating circumstances having material bearing on the candidate's case, such as additional responsibilities or duties required of the candidate in support of strategic goals of the department, college and/or campus that place unusual demands on faculty time.

A. Teaching

The candidate's teaching shall be evaluated by multiple means which will include, at a minimum, Faculty Course Questionnaires and two other means of evaluation. Examples of other means of evaluation are provided in Appendix A. In addition to classroom teaching, the candidate's work with students outside of the classroom as a mentor, research advisor, independent-study director, intern supervisor and similar activities shall be considered here. At this stage, the candidate is expected to show potential for continued development as a teacher. Candidates should demonstrate that their courses are coherently organized and thoughtfully presented. Furthermore, candidates will be expected to demonstrate a commitment to teaching, evidence of which will include good interaction with students, concern with curriculum, and satisfactory development of skills in presenting material. Improvement and innovations in teaching methods and in curriculum development and contribution to the department will be taken into consideration.

B. Scholarly and Creative Work

The department recognizes that scholarship can take many forms. Our department emphasizes fundamental discovery, scholarly work that integrates existing knowledge, and applied research. We recognize scholarly study of teaching and learning issues in our field as a form of research. At this stage, the candidate is expected to demonstrate a well-designed plan for scholarly and creative work and the potential for continued development as a scholar with progress toward publication and external funding. Evidence of this might include drafts of work in progress, presentations at professional meetings, research proposals submitted and/or articles submitted for publication.

Additional guidance: The department recognizes that many factors may impact a faculty member's performance during initial reappointment period. Some flexibility is allowed. For example, while publications are expected, a faculty member could still be meeting expectations with no publications if there is significant other research activity. The department also recognizes that new faculty require some time to build their research program. Lower expectations for new faculty would be appropriate for the first few years.

C. **Leadership and Service**

The department recognizes service to the campus, community and to our profession. At this stage, the candidate is expected to be involved in departmental meetings and activities.

II. **Comprehensive Reappointment Review:**

The candidate's record in teaching, scholarly and creative work, and leadership and service, shall all be evaluated separately. In each category, one of three ratings will be applied: "on track for tenure", "not yet on track for tenure but could meet standards for tenure with appropriate corrections", or "not on track for tenure".

An overall recommendation regarding reappointment will also be made. The candidate must demonstrate sufficient progress toward tenure to justify reappointment. This will typically be indicated by achieving a rating of at least "not yet on track for tenure but could meet standards for tenure with appropriate corrections" in all three areas. The review may also take into account mitigating circumstances having material bearing on the candidate's case, such as additional responsibilities or duties required of the candidate in support of strategic goals of the department, college and/or campus that place unusual demands on faculty time. The department will obtain letters of evaluation of the candidate's dossier from a minimum of three external respected scholars in the candidate's field of scholarly study and these letters will form part of the basis by which the candidate is evaluated.

A. **Teaching:**

The faculty member will be expected to demonstrate effective teaching evaluated by multiple means which will include, at a minimum, Faculty Course Questionnaires and two other means of evaluation. Numerical ratings of student evaluations are used for no more than one third of the overall teaching rating. Examples of appropriate factors for teaching evaluation are provided in the following section. This evaluation includes contributions to the instructional breadth, depth, and needs of the department and up-dating curriculum and course materials. Mentoring of graduate students will be considered, if appropriate, and the quality of the mentoring will be assessed. In addition to classroom teaching, the candidate's work with students outside of the classroom as a general mentor, research advisor, independent study director, lab supervisor and similar activities shall be considered here.

It has been shown that a standard "Evaluate this instructor" question on student evaluations of teaching sometimes shows a bias in results based on gender, ethnicity, and age. To help avoid this, we use an average of scores over several questions relating, not only to the instructor, but to the effectiveness of the instruction. We average the scores (0-7) to the following five questions:

Question 4: The course made it possible for me to increase my knowledge, skills, and understanding of the subject

Question 7: The instructor explained course ideas in a clear and understandable manner.

Question 8: The instructor encouraged interest in this subject.

Question 9: The instructor demonstrated interest in student learning.

Question 11: The instructor communicated effectively with students about this course.

1. A rating of “not yet on track for tenure but could meet standards of tenure with appropriate corrections” requires that the candidate meet the following criteria:
 - a. Teaches requisite number of credits hours for approved workload.
 - b. Achieves an FCQ rating for the instructor-oriented questions (7 through 11) of not more than 1 standard deviation below the department three-term rolling average over student evaluations in comparable courses.
 - c. Overall positive evaluation on other teaching metrics shown in Appendix A.

2. A rating of “on track for tenure” in teaching requires that the candidate meet all criteria of the “not yet on track for tenure but could meet standards of tenure with appropriate corrections” rating *and* at least one of the following criteria:
 - a. Teaches more than requisite number of hours (including the accumulated thesis/project hours) *and* achieves FCQ ratings for student responses to questions specifically having to do with the instructor and instruction of at least ¼ standard deviation above the department three-term rolling average over student evaluations in comparable courses.
 - b. Achieves FCQ ratings for student responses to questions specifically having to do with the instructor and instruction of at least ¾ standard deviations above the department three-term rolling average over student evaluations in comparable courses.
 - c. Wins one significant external educational grant.

3. A rating of “not on track for tenure” in teaching will be given if the candidate does not meet the criteria for “not yet on track for tenure but could meet standards of tenure with appropriate corrections”.

In evaluating teaching, course content, level, and size will be considered in interpreting student evaluations.

B. Scholarly and Creative Work:

The department recognizes that scholarship can take many forms. Our department emphasizes fundamental discovery, scholarly work that integrates existing knowledge, and applied research. We recognize scholarly study of teaching and learning issues in our field as a form of research.

1. A rating of “not yet on track for tenure but could meet standards of tenure with appropriate corrections” requires that the candidate meets the following criteria:
 - a. Submission of research proposals with quality and originality
 - b. Professional presentations
 - c. At least one peer-reviewed publication
 - d. Positive external letters of evaluation of faculty work

2. A rating of “on track for tenure” requires:
 - a. At least three peer-reviewed publications, which may include refereed journal articles, refereed research monographs, and/or refereed book chapters having research focus.

- b. Receipt of peer-reviewed significant external grants or contracts may substitute for publications.

Exceptional quality of scholarly work may be considered to raise an evaluation in cases where the quantity specified has not been met.

- 3. A rating of “not on track for tenure” in scholarly and creative work will be given if the candidate does not meet the criteria for “not yet on track for tenure but could meet standards of tenure with appropriate corrections”.

C. Leadership and Service: The department recognizes service to the campus, community and to our profession.

- 1. A rating of “not yet on track for tenure but could meet standards of tenure with appropriate corrections” requires:
 - a. The candidate meets service responsibilities within the department and provides some service to the college, campus, community or profession.
- 2. A rating of “on track for tenure” requires:
 - a. The candidate meets service responsibilities within the department and multiple service contributions to the college, campus, community, or profession.
- 3. A rating of “not on track for tenure” in leadership and service will be given if the candidate does not meet the criteria for “not yet on track for tenure but could meet standards of tenure with appropriate corrections”.

In evaluating service both the quality and quantity of service contributions will be considered.

III. Promotion to Associate Professor and Awarding of Tenure:

The candidate’s record in teaching, scholarly and creative work, and leadership and service will each be evaluated separately. In each category, one of three ratings will be applied: “below expectations,” “meritorious,” or “excellent.” The candidate must be rated as at least “meritorious” in all three areas and must receive a rating of “excellent” in either teaching or scholarly and creative work. The department will obtain letters of evaluation of the candidate’s dossier from a minimum of three external respected scholars in the candidate’s field of scholarly study and these letters will form part of the basis by which the candidate is evaluated.

A. Teaching:

The candidate will be expected to demonstrate effective teaching evaluated by multiple means which will include, at a minimum, Faculty Course Questionnaires and two other means of evaluation. Numerical ratings of student evaluations are used for no more than one third of the overall teaching rating. Examples of other means of evaluation are provided in Appendix A. This evaluation includes contributions to the breadth, depth, and needs of the department and updating curriculum and course materials. In order to address the issue of bias, gender, ethnicity and age on we use the same approach used in Comprehensive review

(page 4). In addition to classroom teaching, the candidate's work with students outside of the classroom as a mentor, research advisor, independent-study director, intern supervisor and similar activities shall be considered here.

1. A rating of "meritorious" will require student evaluations which are typically at or above the departmental average and evidence of effective teaching.
2. A rating of "excellent" will require:
 - a. Student evaluations which are typically above the departmental average,
 - b. Evidence of effective teaching
 - c. Dedication to student learning

Per Regent Law, "A recommendation for tenure based on excellence in teaching shall 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". Some examples that give evidence of furthering the practice and/or scholarship of teaching and learning beyond the candidate's immediate instructional setting include:

- Publication in peer-reviewed educational conferences and journals (further evidence might include citation counts to these publications)
- Receiving one or more significant competitive external educational grants or contracts
- Publication of a sole-authored or co-authored course textbook that is adopted by another university
- External student reviews of a massively open online course (MOOC) that the candidate has created
- Letter from an external faculty member critiquing course or instructional-laboratory materials prepared by the candidate and adopted by that external faculty in his/her courses/instructional laboratories
- Letter from a member of industry critiquing a short course offered by the candidate to industry
- Letter from a conference organizer regarding a tutorial session or workshop taught by the candidate at a professional conference
- Letter from faculty of another university where the candidate has given lectures, short courses, or full courses (e.g., as a visiting scholar, or adjunct faculty)

This list is intended only to give examples and is not intended to be exhaustive.

3. A rating of "below expectations" in teaching will be given if the candidate does not meet the criteria for "meritorious".

In evaluating teaching, course content, level, and size will be considered in interpreting student evaluations.

B. Scholarly and Creative Work:

The department recognizes that scholarship can take many forms. Our department emphasizes fundamental discovery, scholarly work which integrates existing knowledge, and applied research. We recognize scholarly study of teaching and learning issues in our field as a form of research.

1. A rating of “meritorious” requires:
 - a. At least three peer-reviewed publications which make an original scholarly contribution that are published or accepted in final form. These may include refereed journal articles, refereed book chapters in research monographs or refereed book chapters with research focus. Receipt of peer-reviewed external grants or contracts may substitute for publications.
2. A rating of “excellent” requires:
 - a. At least five peer-reviewed publications which make an original scholarly contribution published or accepted in final form. These may include refereed journal articles, refereed book chapters in research monographs or refereed book chapters with research focus.
 - b. Exceptional quality of scholarly work may be considered to raise an evaluation in cases where the quantity specified has not been met.
 - c. Presentations at professional meetings and non-refereed publications may be considered as secondary evidence of ongoing research activity.
 - d. Receipt of peer-reviewed external grants or contracts may substitute for publications.
3. A rating of “below expectations” in scholarly and creative work will be given if the candidate does not meet the criteria for “meritorious”.

C. Leadership and Service:

The department recognizes service to the campus, community and to our profession.

1. A rating of “meritorious” requires meeting service responsibilities within the department and service to the college, campus, community, or profession.
2. A rating of “excellent” requires meeting service responsibilities within the department and multiple service contributions to the college, campus, community, or profession.
3. A rating of “below expectations” in leadership and service will be given if the candidate does not meet the criteria for “meritorious”.

In evaluating service both the quality and quantity of service contributions will be considered.

IV. Promotion to Full Professor:

The candidate's record in teaching, scholarly and creative work, and leadership and service will each be evaluated separately. In each category, one of three ratings will be applied: "below expectations," "meritorious," or "excellent." Promotion requires "a record that, taken as a whole, is judged to be excellent; a record of significant contribution to both graduate and undergraduate education, unless individual or departmental circumstances require a stronger emphasis or singular focus on one or the other; and a record, since receiving tenure and promotion to associate professor, that indicates substantial, significant, and continued growth, development, and accomplishment in teaching and working with students, research, scholarship or creative work, and service." The department will obtain letters of evaluation of the candidate's dossier from a minimum of three external respected scholars in the candidate's field of scholarly study and these letters will form part of the basis by which the candidate is evaluated.

A. Teaching:

The candidate will be expected to demonstrate effective teaching evaluated by multiple means which will include, at a minimum:

1. Student evaluations in Faculty Course Questionnaires carries no more than one third of overall teaching rating.
2. Two other means of evaluation (examples of other means of evaluation are provided in the Appendix)

This evaluation includes contributions to the breadth, depth, and needs of the department and updating curriculum and course materials. In order to address the issue of bias, gender, ethnicity and age on we use the same approach used in Comprehensive review (page 4). In addition to classroom teaching, the candidate's work with students outside of the classroom as a mentor, research advisor, independent-study director, intern supervisor and similar activities shall be considered here. In evaluating teaching, course content, level and size will be considered in interpreting student evaluations. Substantial, significant and continued growth, development, and accomplishment as a teacher since tenure must be demonstrated through development of new and revised curriculum, new pedagogical techniques, participation in professional development, work with students outside the classroom and other areas of teaching such as those in Appendix A.

B. Scholarly and Creative Work: The department recognizes that scholarship can take many forms. Our department emphasizes fundamental discovery, scholarly work which integrates existing knowledge, and applied research. Substantial, significant and continued growth, development, and accomplishment as a researcher since tenure must be demonstrated through refereed publications, peer-reviewed external grants and other areas of research such as those in the Appendix A. Exceptional quality of scholarly work may be considered to raise an evaluation in cases where the quantity is less. Presentations at professional meetings and non-refereed publications may be considered as secondary evidence of ongoing research activity.

C. Leadership and Service: The department recognizes service to the campus, community, and to our profession. In evaluating service both the quality and quantity of service contributions will be considered. Substantial, significant and continued growth, development, and

accomplishment in service since tenure must be demonstrated through measurable service progress in the department, college, campus, university, community and in our profession. We recognize that different faculty at this level will fulfill this requirement very differently. Appendix A lists some issues that may be considered.

Overall excellence may be demonstrated either by truly distinguished efforts in one area accompanied by progress in the other areas, by manifest strength in two areas accompanied by progress in the remaining area, or by truly substantial progress in all three.

V. Post-tenure Review:

Recognizing the many different ways in which post-tenure faculty contribute to the University, we define “meeting expectations” for purposes of post-tenure review as consisting of three elements, each of which must be met:

- A. Having achieved a rating of “meeting expectations” or higher on each of the annual merit reviews included in the time period under review
- B. Having met the goals of the faculty member’s current professional plan
- C. Having submitted an acceptable professional plan which indicates an ability to achieve “meeting expectations” or higher ratings in the future. If a faculty member is deficient in meeting this standard, the committee shall consider the total record of the faculty member during the review period to determine whether strengths in some time periods or some activities compensate for the deficiency such that a rating of “meeting expectations” is still appropriate. Ratings of “exceeding expectations” or “outstanding” will be awarded for exceeding these standards.

Appendix A: Factors to be considered for Tenure and Promotion:

The following lists itemize example means to evaluate a candidate's teaching, research, and service. These lists are not intended to be exhaustive.

Example means for evaluating a candidate's contributions to teaching:

- Quality of classroom teaching, as evidenced by student evaluations, peer evaluations, and/or instructor course evaluations
- Use of innovative teaching techniques and/or technology to improve learning, (e.g., active learning, tailoring activities to student learning styles, incorporating elements to facilitate distance learning)
- Teaching "service" classes in addition to a standard teaching load, such as freshman seminar, special topics, or courses for industry
- Supervise undergraduate research assistants, independent-study students, senior-design students, masters theses and/or doctoral dissertations
- Mentor students, including course and/or career advising
- Create new and relevant courses, programs, and/or instructional laboratories
- Write course or laboratory readers, educational books, and/or educational software
- Contribute to course and/or program assessment
- Contribute to the ongoing process of evaluating and updating instructional materials and/or curriculum for courses, laboratories, and programs
- Present peer-reviewed papers at education conferences
- Displays flexibility and cooperation required to carry a full share of his or her department's teaching responsibilities over the long term
- Developing texts or materials which are used at high schools, leading to greater ECE enrollment or success in ECE.

Example means for evaluating a candidate's contribution to scholarly and creative work:

- Quality peer-reviewed publications documenting advances in scholarship of discovery (basic research), scholarship of integration (research bringing together knowledge from separate fields or sub-fields), scholarship of application (research applying knowledge to real-world problems), and/or scholarship of teaching and learning in Electrical and Computer Engineering (pedagogical research). Example peer-reviewed outlets include: peer-reviewed conferences, journals and research monographs, and book chapters with research focus.
- Develop high-quality technical reports relating to diversity, equity and inclusiveness
- Develop high-quality technical reports relating to the scholarship of discovery, integration, application, and/or teaching and learning
- Producing quality research products, such as materials, devices, systems, and software that benefit the research community
- Research has been directed to problems that are recognized as significant by experts in the field and are consistent with the objectives of the department
- Seek and/or obtain external funding through research proposals for single and/or multidisciplinary work in the scholarship of discovery, integration, application and/or teaching and learning
- Seek and/or obtain funding and research opportunities for students

- Strong record in attracting graduate students and directing their research
- Develop or acquire laboratory facilities to support research, such as seeking and/or obtaining equipment grants
- Patent disclosures submitted/awarded

Example means for evaluating a candidate's contribution to leadership and service:

- Serve as an active member of departmental, college, campus, and/or system committees
- Participates in activities intended to improve the quality of the university's program
- Serve as chair of departmental, college and campus, and/or system committees
- Serve as chair of department or associate dean
- Serve as teaching mentor to junior faculty, honoraria, and/or teaching assistants
- Serve as research mentor to junior faculty, including helping with proposal writing to enhance their success in obtaining research funding
- Participate in activities that promote Diversity, Equity and Inclusiveness
- Participate in activities that contribute to recruiting and retention, at the department, college and/or campus levels (e.g., high-school visits, engineering challenge, freshman welcome, EAS ambassador, etc.)
- Contribute to efforts that establish strategic partnerships with industry and the military
- Set up multi-institution higher education or technical collaboration
- Service for technical journals (e.g., editor and/or reviewer)
- Service for technical and/or education conferences (e.g., workshop organizer or presenter, session chair, session organizer, reviewer)
- Service to profession and discipline at the state, national and/or international levels, such as within professional organizations (e.g., on a technical program committee)
- Serve on proposal review panels
- Seek and/or obtain funding for student scholarships
- Serve as student club advisor
- Participate in technical or higher education-oriented service in the community, such as mentoring high-school students on projects.

APPENDIX B SPECIFIC CRITERIA FOR PROMOTION FROM INSTRUCTOR TO SENIOR INSTRUCTOR

A. General Principles

For promotion to Senior Instructor follows EAS policy and the candidate must hold a master's degree or its equivalent and should have considerable experience teaching at the undergraduate (primarily lower division) level. Additionally, the candidate must have demonstrated special abilities in teaching, such as consistently above-average student evaluations, significant contributions to development of new courses and laboratories, and course materials.

B. Specific Criteria

- a. Does the candidate have a thorough knowledge of the subject matter of the courses/laboratories faculty has taught?
- b. Does the candidate keep courses/laboratories up-to-date by incorporating new material or by using new methods/approaches/technology?
- c. Has the candidate demonstrated an ability to collaborate with faculty in developing new courses/laboratories, or in making substantial revisions in old ones, at the undergraduate level?
- d. Is the candidate an enthusiastic teacher?
- e. Do the students and/or peers consider the candidate an effective teacher?
- f. Is the candidate accessible and willing to spend adequate time with students outside the classroom?
- g. How well are the candidate's students prepared for succeeding in courses/laboratories?
- h. Does the candidate contribute to the department's service activities?

**SPECIFIC CRITERIA FOR PROMOTION FROM
SENIOR INSTRUCTOR TO PRINCIPAL INSTRUCTOR**

C. General Principles

For promotion to Principal Instructor from senior instructor follows EAS policy, and the candidate must hold a master's degree or its equivalent and should have considerable experience teaching at the undergraduate (primarily lower division) level. Additionally, the candidate must have demonstrated special abilities in teaching, such as consistently above-average student evaluations, significant contributions to development of new courses and laboratories, and course materials.

D. Specific Criteria

- a. Does the candidate have a thorough knowledge of the subject matter of the courses/laboratories he or she has taught?
- b. Does the candidate keep courses/laboratories up-to-date by incorporating new material or by using new methods/approaches/technology?
- c. Has the candidate demonstrated an ability to collaborate with faculty in developing new courses/laboratories, or in making substantial revisions in old ones, at the undergraduate level?
- d. Is the candidate an enthusiastic teacher?
- e. Do the students and/or peers consider the candidate an effective teacher?
- f. Is the candidate accessible and willing to spend adequate time with students outside the classroom?
- g. How well are the candidate's students prepared for succeeding in advanced courses/laboratories?
- h. Does the candidate contribute to the department's assessment activities in addition to normal service?
- i. Does the candidate show interest in mentoring senior design projects?
- j. Does the candidate take leadership in activities such as help centers?

EXAMPLES OF APPROPRIATE CRITERIA FOR FACULTY EVALUATION

The criteria used for yearly faculty evaluation are the same as the criteria used for Promotion and Tenure.

Version History- Department of ECE

Version 2: *Minor Revisions*

- Approved by the Department of ECE Faculty, 01/19/2023
- Accepted and approved by the Dean, Don Rabern, 02/06/2023
- Approved by Provost Nancy Marchand-Martella, 02/13/2023
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- Approved by the Department of ECE Faculty, 04/23/2020
- Accepted and approved by the Dean, Don Rabern, 06/25/2020
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