CRITERIA FOR APPOINTMENT, REAPPOINTMENT AND PROMOTION FOR THE CLINICAL TEACHING TRACK (CTT) IN BIOENGINEERING

February 8, 2016

WORK EXPECTATIONS OF CLINICAL TEACH TRACK (CTT) FACULTY

CTT faculty in Bioengineering are expected to devote a substantial majority of their time to teaching and continuously improving the practice of bioengineering pedagogy. This track is intended to support faculty who have a primary interest in teaching, with significantly lower research and leadership/service responsibilities compared to tenure-track or tenured faculty.

INITIAL APPOINTMENT TO ASSISTANT PROFESSOR (CTT)

Candidates to the Clinical Teaching Track should have a record of strong teaching in bioengineering or related areas, and an existing research record or potential for research in bioengineering. The default CTT faculty appointment is 80% teaching, 10% research, and 10% Leadership/Service (80/10/10). Other workloads may be assigned by the Department Chair, subject to approval by the Dean and Provost.

PROMOTION TO THE RANK OF ASSOCIATE PROFESSOR (CTT)

Faculty applying to be promoted to this rank must have a minimum of 5 years at the rank of Assistant Professor. The candidate must demonstrate “Excellence” in Teaching per the Department of Bioengineering approved Criteria for Reappointment, Promotion, Tenure and Post-Tenure Review, and demonstrate “Meritorious” performance in Research and Leadership/Service categories, again per the Department of Bioengineering Criteria for Reappointment, Promotion, Tenure and Post-Tenure Review. Recognition will be given to the fact that CTT faculty will devote only 10% of their time each to Research and Leadership/Service. Accordingly, while quality expectations of work under Research and Leadership/Service will remain high, quantity expectations will be lower. Thus, the number of metrics required for a “Meritorious” evaluation of tenure-track or tenured faculty will be higher than the number required for an equivalent evaluation of a CTT faculty member.

PROMOTION TO THE RANK OF PROFESSOR (CTT)

Faculty at this rank must have a minimum of five years at the rank of Associate Professor CTT. The criteria for promotion to the rank of Full Professor CTT are based on achievement well beyond that required for promotion to Associate Professor. The record since the last promotion must show substantial, significant, and continued growth, development, and accomplishment that reflects overall excellence. The quantity of metrics for a “Meritorious” or “Excellent” evaluation will again be commensurate with the percentage of appointment on teaching, research and advising, leadership, and service. Whereas some of the metrics for excellence in teaching may be sufficient for promotion from Assistant Professor (CTT) to Associate Professor (CTT), more of these metrics must be satisfied to be promoted from Associate Professor (CTT) to Professor (CTT).
CRITERIA FOR PROMOTION

Teaching

To demonstrate meritorious teaching, the faculty member must demonstrate some but not necessarily all of the meritorious criteria. To demonstrate excellence, the faculty member must demonstrate some but not necessarily all the Excellent criteria. The number of criteria to be satisfied will increased depending on whether the candidate is being evaluated for promotion from Assistant Professor to Associate Professor, and from Associate Professor to Professor.

Meritorious

1. Active participation in teaching activities of the department, including two or more of the following: presenting a series of lectures covering one or more topics; coordinating a course, acting as primary instructor in a course, advising students, mentoring students and/or fellows, seminar or journal club organizer, small group or laboratory teacher, continuing education activities.
2. Meritorious peer reviews of class meetings and other teacher-student venues
3. Curriculum advising and participation in curriculum review or revision for the program
4. Meritorious teaching evaluations from students and peers.
5. Development or redevelopment of teaching materials for students, continuing education courses and/or other faculty training.
6. Meritorious standardized student evaluations (FCQs) from every course. This measure is required by the Board of Regents. Normally, there are no FCQ for independent study and thesis advisory roles. However, letters from students in independent study or whose thesis was advised by the candidate or interviews with such students by a member of the primary unit can assist in evaluations.
7. Solicited and unsolicited opinions of students and recent graduates, if available

Excellent

1. Regularly assumes greater than average share of teaching duties - e.g., course director, fellowship director.
2. Consistently receives outstanding teaching evaluations or teaching awards, recognition as an outstanding role model for students.
3. Acquiring (PI) teaching or curriculum development grants (e.g. T32, etc)
4. Trains students/fellows who pursue outstanding academic careers.
5. Develops innovative teaching methods such as educational software, videotapes, packaged courses or workshops, etc.
7. Consistent participation in national educational activities - e.g., programs sponsored by professional organizations, re-certification, workshops and symposia, etc.
8. Provides educational leadership by writing syllabi, textbooks or assuming an administrative role (e.g., Assistant Dean Continuing Medical Education, Graduate Medical Education, Allied Health or Student Affairs).
9. Publications on teaching in peer-reviewed educational journals.
8. Invitations to present Grand Rounds/seminars here and at other institutions; invitations to present courses outside of primary department.
9. Invitations to be a visiting professor at another institution.
10. Peer-reviewed conference presentations on teaching methods or curricular innovations.

Less than meritorious evaluations are based on a record that does not rise to the level of merit described above. Consistently poor teaching evaluations, little effort to improve teaching, a pattern of student complaints deemed legitimate, and uninspired or ineffective mentoring are indications of a less-than-meritorious record.
Research

**Meritorious**
1. Sustained research focus, building a coherent body of research findings/innovation.
2. Authorship of papers in high quality peer-reviewed journals.
3. Co-investigator on grants.
4. A sustained role in the management of a research program with external funding.
5. Entrepreneurial activities such as licenses, contracts with venture capitalists or other developers of research finding to achieve practical application.
6. Presentations at national meetings; invited research seminars.

**Excellent**
1. A consistent level of peer-reviewed and/or other funding for research over a sustained period of time.
2. Served as a primary mentor to graduate students who successfully completed or are on the path to successfully complete their Ph.D.
3. Provide consistent research support for at least 2 graduate students per year.
4. Demonstrated evidence of originality as an investigator.
5. Principal investigator status on peer-reviewed grants.
7. An ongoing, peer-reviewed publication record with senior author publications.
8. A national and/or international reputation as evidenced by external letters of reference, invitations to present at national/international meetings, visiting professorships, service on study sections, organizing national meetings, serving as a national consultant, or on editorial boards of journals, etc.

Less than meritorious evaluations result from a record that is seriously lacking in some of the areas described above. Failure to obtain grant support (even as a collaborator), research without focus, and lack of publications are obvious signs of less-than-meritorious work.
Leadership/Service

Meritorious
1. Willingness to perform department services (serving on committees, being faculty advisor to student clubs/organizations, etc).
2. Serving on departmental committees.
3. Involvement in professional societies, especially serving as an officer or committee chair.
4. Outreach to the community (lectures, guest presentation, coaching pre-college students, serving on boards and committees, etc).
5. Engaging in college-wide or university-wide service, including faculty governance.
6. Participating in grant and paper reviews.

Excellent
1. Externally documented exceptional leadership in a professional society.
2. Assumption of a substantive leadership role at the regional or national level - i.e., chairing committees, or accepting positions as officer of local or statewide professional organizations.
3. Editorial role in a journal.
4. High impact outreach to the community as evidenced by external review, independent media sources, etc.
5. Chairing NIH study sections or grant review sections.

Less than meritorious evaluations of service derive from the candidate’s unwillingness to undertake a reasonable level of service to the department, the college and campus, the profession, or the larger community. Refusing to serve or consistently failing to attend or participate in departmental, college or campus service is an indication of less-than-meritorious service. A pattern of disruptive and unprofessional behavior in service activities is also deemed less than meritorious.
Primary Unit Criteria for Clinical Teaching Track Faculty

12 January 2015

This document outlines the expectations for Clinical Teaching Track (CTT) faculty in the areas of (1) teaching, (2) research, and (3) leadership and service. These evaluation benchmarks are not meant to be exclusionary; rather, the intent is to help CTT faculty and their evaluators to identify expectations.

The default CTT faculty appointment is 80% teaching, 10% research, and 10% leadership and service (80/10/10), meeting the minimum requirements for research and leadership and service stated in the Clinical Teaching Track Faculty Guidelines for the Denver Campus. According to the faculty appointment, the default teaching workload comprises eight units, where one unit is equivalent to one course per academic year. Other workloads may be granted by approval of the department chair.

Appointment to Faculty Ranks

Appointments are made by the department chair with approval from the college dean. Requirements for CTT faculty ranks of Instructor CTT, Senior Instructor CTT, Assistant Professor CTT, Associate Professor CTT, and Professor CTT are given in Regent Policy 5-L. Additional requirements for these ranks are given in Article VII of the College of Engineering and Applied Science Bylaws (Engineering Bylaws).

Promotions to Higher Ranks

Procedures for promotion to higher CTT faculty ranks are described in the Engineering Bylaws. CTT faculty seeking promotion should submit a promotion dossier showing how they meet the requirements for a higher CTT faculty rank. CTT faculty undergoing evaluation for promotion are responsible for preparing their promotion dossier in accordance with the University and College policies for promotion. Candidates whose promotion is not granted retain their previous rank, and may submit a new promotion dossier in the following academic year.

Standards and Criteria

The following criteria guide appointments, annual evaluations, and promotions for CTT faculty. The areas of teaching, research, and leadership and service should be weighted according to the workload agreed with the department chair. These criteria are based on the Criteria and Standards for Evaluation of Tenure-Track and Tenured Faculty approved 4/12/2012, and use identically numbered criteria, and additional criteria under Teaching and Leadership and Service.

2 https://www.cu.edu/regents/Policies/Policy5L.htm (accessed 10/12/2013)
3 College of Engineering and Applied Science Bylaws, University of Colorado Denver, 10/30/2014
In recognition that CTT faculty have different duties from tenure-track and tenured (TT/T) faculty, the expected number of criteria to be demonstrated is different, although not the quality within any given criterion. The following examples explain the philosophy of similarities and differences between the CTT and TT/T criteria:

- For consideration of excellence in teaching, TT/T faculty should exhibit some of the examples listed in §1 of their TT/T criteria. Accordingly, for consideration of excellence in teaching, CTT faculty should exhibit more of the examples listed in §1 below, proportional to their workload. For example, for the default CTT workload of 80% teaching, the expected number of criteria to be demonstrated is double that for TT/T faculty (assumed 40% teaching).

- For consideration of excellence in research, TT/T faculty should exhibit some of the examples listed in §2 of their TT/T criteria. Accordingly, for consideration of excellence in research, CTT faculty need exhibit fewer of the examples listed in §2 below, proportional to their workload. For example, for the default CTT workload of 10% research, the expected number of criteria to be demonstrated is one quarter that for TT/T faculty (assumed 40% research).

- For consideration of excellence in leadership and service, TT/T faculty should exhibit some of the examples listed in §3 of their TT/T criteria. Accordingly, for consideration of excellence in leadership and service, CTT faculty need exhibit fewer of the examples listed in §3 below, proportional to their workload. For example, for the default CTT workload of 10% leadership and service, the expected number of criteria to be demonstrated is half that for TT/T faculty (assumed 20% leadership and service).

As stated in the Engineering Bylaws, candidates for promotion should document that (1) they meet the minimum requirements for the higher rank, and that (2) they have demonstrated performance at the level of the higher rank as stated in these Primary Unit Criteria. The minimum requirements for each CTT faculty rank are stated in the Engineering Bylaws. The performance expected at each CTT faculty rank is guided by the following table:

<table>
<thead>
<tr>
<th>for promotion to</th>
<th>Teaching Criteria</th>
<th>Research Criteria</th>
<th>Leadership and Service Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Instructor CTT</td>
<td>2-6</td>
<td>1-2</td>
<td>1-2</td>
</tr>
<tr>
<td>Assistant Professor CTT</td>
<td>2-6</td>
<td>1-2</td>
<td>1-2</td>
</tr>
<tr>
<td>Associate Professor CTT</td>
<td>6-10</td>
<td>2-3</td>
<td>2-3</td>
</tr>
<tr>
<td>Professor CTT</td>
<td>10-13</td>
<td>3-4</td>
<td>3-4</td>
</tr>
</tbody>
</table>

For example, a candidate seeking promotion from Senior Instructor CTT to Assistant Professor CTT should document (a) their doctoral degree in a relevant field, (b) experience in the area in which they will teach, (c) teaching effectiveness at the university level, and (d) potential for research/scholarship and leadership/service. To document teaching effectiveness, the candidate should provide evidence for 2-6 of the teaching criteria; to document research/scholarship potential, the candidate should provide evidence for 1-2 of the research criteria; and to document leadership/service potential, the candidate should provide evidence for 1-2 of the leadership and service criteria. For promotion to Professor CTT, “excellence in teaching and in service” (as stated in the Engineering Bylaws) is interpreted as demonstrating 10-13 teaching criteria and 3-4 leadership and service criteria. Specific criteria for the three areas are provided below.
1. Teaching

CTT faculty devote at least 51% of their effort to teaching, with effectiveness demonstrated by meeting some—but not necessarily all—of the following criteria:

1. Receives positive teaching evaluations from FCQs (that must be reported), faculty peer review, or other means of class assessment

2. Performs positive advising of prospective or enrolled undergraduate and graduate students, particularly those performing research, those identified through Early Alert, and those on academic probation

3. Participates in curriculum development, improves effectiveness of undergraduate advising programs, renews and redevelops existing courses, or develops new or completely revised courses that contribute to the department’s mission

4. Attends, participates in, or leads college, department, center, or program educational initiatives and activities, such as New Student Orientation, or collaborations with other educational institutions

5. Develops innovation in teaching, such as teaching with technology (such as software, video clips, teaching packages), teaching beyond classroom lectures (such as industrial partnerships, field trips, engineering projects)

6. Takes teaching effectiveness training/workshops, or gives presentations of teaching/advising at local/regional/national meetings, seminars, and/or workshops

7. Receives teaching awards or documented recognition from peers or students for excellence in Teaching

8. Publishes on teaching/advising in peer-reviewed journals, peer-reviewed conference proceedings, or textbooks

9. Receives external grants in support of educational programs

10. Holds Professional Engineer (PE) license

11. Serves as faculty advisor for student organization(s), such as the American Society of Civil Engineers, Chi Epsilon, the Institute of Transportation Engineers, the National Society of Black Engineers, the Society of Hispanic Professional Engineers, the Society of Women Engineers, or Tau Beta Pi

12. Keeps abreast of developments in engineering practice through consulting engineering activities, and attendance at engineering conferences and seminars

13. Receives recognition of competence by giving talks and presenting seminars to industry Groups
2. Research

CTT faculty are expected to participate in research, proportional to their workload, with effectiveness demonstrated by meeting some—but not necessarily all—of the following criteria:

1. Develops and sustains clear research thrust(s)

2. Maintains active publishing record in peer-reviewed journals

3. Actively engages in proposal writing to external funding sources

4. Develops patents, software, or reports that contribute to advances in practice of discipline

5. Presents research findings at national/international meetings, seminars, and/or workshops

6. Serves as advisor to graduate students who successfully complete or are on the path to successfully complete their M.S. or Ph.D.
3. Leadership and Service

CTT faculty are expected to provide leadership and service to the department, professional societies, and the broader community, proportional to their workload, with effectiveness demonstrated by meeting some—but not necessarily all—of the following criteria:

1. Serves on or chairs department committee(s)
2. Participates in or takes a leadership role in professional society(ies)
3. Serves as a referee for grant and paper reviews or as an editor for journal(s) or regularly published society newsletters
4. Reaches out to the community (such as student recruitment, continuing education, guest lectures, advising K-12 students, serving on boards and committees)
5. Chairs conference sessions and/or actively participates in conference planning activities or other professional society activities
6. Mentors junior faculty
7. Develops service collaborations with industrial partners
8. Serves as faculty advisor or technical advisor to senior design teams
9. Fosters a culture of excellent customer service in terms of responsiveness, attentiveness, and availability
The policies and criteria for appointment, reappointment, and promotion of the clinical teaching track (CTT) faculty for the department of Computer Science and Engineering is described in this document.

The CTT is a non-tenure track faculty appointment and is intended for faculty with strong primary interest in teaching and curriculum development in computer science. The criteria set forth differ from the approved criteria and standard for RTP in the department in workload distribution and expected performance proportional to the default CTT appointment of 80% teaching, 10% research, and 10% leadership and service (80-10-10) and that tenure is not applicable. Other workloads may be assigned by the Chair, subject to approval by the Dean and Provost. In such a case, if the CTT has a workload other than 80-10-10, the quantity of expectation will be commensurate to the workload for their appointment.

Initial Appointment to CTT Assistant Professor:
Candidates should have a terminal degree in computer science or a related field, a strong record of teaching in the field, and an existing research record or demonstrate potential for research in computer science.

Faculty Professional Activities:
In evaluating a faculty member’s professional activities, the faculty member’s achievement is evaluated in the areas of research, teaching, leadership and service. The following provides expectations of each of research, teaching, leadership and service activities that would be considered meritorious or excellent in the areas of evaluation.

A. Research: The record of the candidate’s research will be based on the quality of research publications, their impact in the field, and external funding. A candidate’s ability to conduct independent research is also a factor and may be evidenced by joint research publications with students, sole and senior authorship, principle investigator on external funding, and others as provided by the candidate.

**Meritorious:** To achieve a rating of meritorious in research, faculty should 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 should demonstrate that he/she has developed (or is developing) clear research thrusts. Participation in national conferences and patents are also considered contributions towards research activity.

**Excellent:** To achieve a rating of excellent in research, faculty should have demonstrated success as a PI and/or a Co-PI with a leading role 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 students’ research. Faculty should also maintain an active publishing record in appropriate upper-tier journals with some evidence of primary authorship (with the exception of students). Participation in national conferences and patents are contributions to research activities as well. Faculty should demonstrate evidence of significant impact of their research in the field.

B. Teaching: Teaching responsibility for faculty involves classroom instruction, individual student supervision and mentoring, curriculum and laboratory developments, educational research and initiatives in the department and the college. The nominal teaching load for 80-10-10 CTT faculty is eight courses per academic year unless special arrangements are made with the department.

**Meritorious:** To achieve a rating of *meritorious* in teaching, faculty should receive good course evaluations where evaluations should include FCQ's, faculty peer review, and/or other means of assessment. Faculty should mentor student projects and/or theses.

**Excellent:** To achieve a rating of *excellent* in teaching, faculty must receive good to excellent course evaluations where evaluations should be a combination of FCQ's, faculty peer review, and other means of assessment. Faculty should mentor student projects and/or theses. Faculty should be involved in some of the following activities related to teaching: curriculum and laboratory development, mentoring graduate teaching assistants with teaching responsibilities, textbook publishing, co-authoring papers with educational content with students, and working on college and departmental educational initiatives. Excellence in teaching should also include external funding for educational activities or equipment and publications in upper tier peer reviewed engineering education journals and conferences. Excellence in teaching must be supported by appropriate external review documenting the excellence in teaching.

C. Leadership and Service: Faculty leadership and service are essential for the maintenance and improvement of the CSE Programs. Departmental service and leadership responsibilities include, but are not limited to, advising students, program assessments, active memberships in departmental committees, and performing various evaluations of faculty performance. This may also include performing College and University tasks and providing leadership and service to professional and scholarly societies. Faculty are expected to attend College and Departmental meetings. Faculty must maintain level of activity that is commensurate with their workload requirements.

**Meritorious:** To achieve a rating of *meritorious* in leadership and service, faculty are expected to maintain a level of activity commensurate with the 10% workload requirement. For the small CSE department, leadership and service at the departmental level will help the maintenance and improvement of its programs.

**Excellent:** To achieve a rating of *excellent* in leadership and service, faculty are expected to meet the requirements to be *meritorious* and have performed service and assumed leadership roles that have significant impact as determined by faculty peers.

**Criteria for Promotion to CTT Associate Professor**
The expected interval between the initial appointment of CTT assistant professor and applying for promotion to CTT associate professor status is about seven years. A candidate must be evaluated by the primary unit committee (by majority vote) and by subsequent levels of evaluation (college and campus) to be excellent in teaching and demonstrate meritorious performance in research and leadership/service.

Each candidate will have a somewhat different profile of achievements and strengths. Any candidate recommended by the primary unit for promotion should add overall strength to the Department and help it maintain excellence in teaching, research, and service. Consideration will be given to the fact that CTT faculty will devote only 10% of their time to Research and Leadership/Service respectively; while quality expectations of work in these two areas will remain high, quantity expectations will be lower.

**Criteria for Promotion to CTT Full Professor**

The expected interval between promotion to CTT associate professor and applying for full professor status is about seven years. Candidate for promotion to CTT full professor needs to demonstrate “(A) a record that, taken as a whole, is judged to be excellent; (B) a record of significant contribution to undergraduate and graduate education, unless the departmental circumstances require a stronger emphasis, or singular focus, on one or the other; and (C) a record, since promotion to associate professor, that indicates substantial, significant, and continued growth, development, and accomplishment in teaching, continued meritorious research, scholarship or creative work, leadership and service.” Consideration will be given to the fact that CTT faculty will devote only 10% of their time to Research and Leadership/Service respectively; while quality expectations of work in these two areas will remain high, quantity expectations will be lower.

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

8/31/2017

_________________________
Gita Alaghband, Chair
Computer Science and Engineering Department
Date

These criteria and standards have been accepted and approved by:

_________________________
Stephen Gedney, Interim Dean
College of Engineering and Applied Science
Date
I. WORK EXPECTATIONS OF CLINICAL TEACHING TRACK (CTT) FACULTY
CTT faculty in Electrical Engineering are expected to devote a substantial majority of their time to teaching, to continuously improving the practice of electrical engineering pedagogy, as well as to student advising. This track is intended to support faculty who have a primary interest in teaching and student advising, with significantly lower research responsibilities, as compared to tenure-track or tenured faculty.

II. INITIAL APPOINTMENT TO ASSISTANT PROFESSOR (CTT)
Candidates to the Clinical Teaching Track should have a PhD in Electrical Engineering, Computer Engineering, or other related technical field, as well as a strong teaching record in electrical and/or computer engineering and/or related technical areas; they should also have an existing research record or demonstrated potential for research in electrical and/or computer engineering. The default CTT faculty appointment is 80% teaching, 10% research, and 10% for advising, leadership, and service (80/10/10). Other workloads may be assigned by the Department Chair, subject to approval by the Dean and the Provost.

III. PROMOTION TO THE RANK OF ASSOCIATE PROFESSOR (CTT)
Faculty applying to be promoted to this rank must have a minimum of 5 years at the rank of Assistant Professor CTT. The candidate must demonstrate “Excellence” in Teaching and at least “Meritorious” in research and service, based on the Department of Electrical Engineering approved criteria outlined in Section V. The criteria provide guidelines for the quality of expectations in each category of teaching, research, and advising, leadership, and service. The quantity of metrics for a “Meritorious” or “Excellent” evaluation will be commensurate with the percentage of appointment on teaching, research and advising, leadership, and service.

IV. PROMOTION TO THE RANK OF PROFESSOR (CTT)
Faculty at this rank normally have a minimum of five years at the rank of Associate Professor CTT. The criteria for promotion to the rank of Full Professor CTT are based on achievement well beyond that required for promotion to Associate Professor. The record since the last promotion must show substantial, significant, and continued growth, development, and accomplishment that reflects overall excellence. The quantity of metrics for a “Meritorious” or “Excellent” evaluation will again be commensurate with the percentage of appointment on teaching, research and advising, leadership, and service. Whereas some of the metrics for excellence in teaching may be sufficient for promotion from Assistant Professor (CTT) to Associate Professor (CTT), more of these metrics must be satisfied to be promoted from Associate Professor (CTT) to Professor (CTT).
V. CRITERIA FOR PROMOTION

To demonstrate meritorious for teaching, research, or service, the faculty member must demonstrate some but not necessarily all of the meritorious criteria. To demonstrate excellence, the faculty member must demonstrate some but not necessarily all the Excellent criteria. The number of criteria to be satisfied will increase depending on whether the candidate is being evaluated for promotion from Assistant Professor to Associate Professor, and from Associate Professor to Professor and % of workload.

V.i. Teaching

Meritorious
1. Active participation in teaching activities of the department, including: acting as primary instructor in a course, mentoring students, involved in continuing education activities, and/or other faculty training.
2. Dedication to teaching, as demonstrated by his/her knowledge of subjects taught, appropriate course organization, innovation, objectivity & fairness, availability, enthusiasm, and ability to stimulate student learning.
3. Meritorious preparation of teaching materials as evidenced by teaching skill development (e.g., teaching portfolio), and use of appropriate methods of student evaluation for outcomes-based improvements.
4. Participation in curriculum assessment, review, and revision.
5. Development or modification of teaching materials beneficial to student learning.
6. Development of, or restructuring of, a course to enhance or modernize the Engineering undergraduate curriculum.
7. Meritorious teaching evaluations from students and peers.
8. Meritorious standardized student evaluations (FCQs) from every course. This measure is required by the Board of Regents. Normally, there are no FCQ for independent study and thesis advisory roles. However, letters from students in independent study or whose thesis was advised by the candidate or interviews with such students by a member of the primary unit can assist in evaluations.
9. Solicited and unsolicited opinions of students and recent graduates.
10. Peer-reviewed conference presentations on teaching methods or curricular innovations.

Excellent
1. Regularly assumes greater than average share of teaching duties - e.g., course director.
2. Consistently receives outstanding teaching evaluations or teaching awards, recognition as an outstanding role model for students.
3. Develops innovative teaching methods such as educational software, flipped classroom, MOOC, workshops, etc.
4. Provides educational leadership by writing syllabi, textbooks, or leads ABET assessment activities.
5. Acquiring (PI) teaching or curriculum development grants (e.g. T32, etc)
6. Trains students/fellows who pursue outstanding academic careers.
7. Successfully runs regional continuing education courses.
8. Consistent participation in national educational activities - e.g., programs sponsored by professional organizations, re-certification, workshops and symposia, etc.
9. Publications on teaching in peer-reviewed educational journals.

Less than meritorious evaluations are based on a record that does not rise to the level of merit describe above. Consistently poor teaching evaluations, little effort to improve teaching, a pattern of student complaints deemed legitimate, and uninspired or ineffective mentoring are indications of a less-than-meritorious record.
V.ii. Research

Meritorious
1. Sustained research focus, building a coherent body of research findings/innovation.
2. Authorship of papers in high quality peer reviewed journals.
3. Co-investigator on grants.
4. Presentations at national meetings; invited research seminars.
5. A sustained role in the management of a research program with external funding.
6. Entrepreneurial activities such as licenses, contracts with venture capitalists or other developers of research finding to achieve practical application.

Excellent
1. Obtaining external funding for research from competitive sources, serving as principal investigator.
2. Served as a primary mentor to graduate students who successfully completed their MS and/or PhD.
3. Maintaining an ongoing publication record in upper-tier peer reviewed journals with some evidence of primary authorship with the exception of students.
4. Demonstrated evidence of originality as an investigator.
5. Development of patents.
6. A national and/or international reputation as evidenced by external letters of reference, invitations to present at national/international meetings, visiting professor- ships, service on study sections, organizing national meetings, serving as a national consultant, or on editorial boards of journals, etc.

Less than meritorious evaluations result from a record that is seriously lacking in some of the areas described above. Having neither any grant support (even as a collaborator (coPI) or from internal university sources) nor any publications are obvious signs of a less-than-meritorious work.
V.iii. Advising, Leadership and Service

**Meritorious**
1. Willingness to perform department services (serving on committees, Being involved in ABET activities, maintaining labs)
2. Willingness to serve engineering students in extracurricular activities (advisor to student clubs or organizations, lead tutorial sessions, workshops)
3. Active participation in student advising, including pre-engineering students, transfer students, and current electrical engineering students.
4. Being involved in professional societies on local level (e.g., IEEE Chapters) or national level
5. Outreach to the community (lectures, guest presentation, coaching pre-college students, serving on boards and committees, etc.).
6. Engaging in departmental, college-wide or university-wide services, including faculty governance.
7. Participating in grant and paper reviews.

**Excellent**
1. Exhibiting externally documented exceptional leadership in a professional society.
2. Assuming a substantive leadership role at the regional or national level – e.g., organizing student competitions at regional and national levels, chairing committees, or accepting positions as officer of local or statewide professional organizations.
3. Assuming editorial role in a journal.
4. Exhibiting high impact outreach to the community as evidenced by external reviews, independent media sources, etc.
5. Participating in national funding agencies or grant review sections.
6. Establishing new high level visible programs in the College or the University.
7. Serving as session organizer or Chair for national meetings.

Less than meritorious evaluations result from a record that is seriously lacking in some of the areas described above. The candidate’s unwillingness to undertake a reasonable level of service to the department, the college and campus, the profession, or the larger community qualifies for a less than meritorious evaluation.