

GUIDELINES FOR TENURE AND PROMOTION

DEPARTMENT OF MEDICAL ENGINEERING

JOINTLY GOVERNED DEPARTMENT BY THE COLLEGES OF ENGINEERING AND MEDICINE

University of South Florida

PREAMBLE

The Tenure and Promotion Committees of the Department of Medical Engineering at the University of South Florida (USF) follow USF tenure and promotion guidelines and policies when evaluating faculty tenure and/or promotion cases (see <https://www.usf.edu/provost/faculty/tenure-promotion.aspx>). The following information is intended to help guide faculty in the Department regarding the factors that are taken into consideration when evaluating a candidate for tenure and/or promotion in the College of Engineering or College of Medicine. Candidates for tenure and/or promotion are also encouraged to seek out mentors both inside and outside the Department and to discuss their progress towards tenure and/or promotion with the Department Chair.

The Department of Medical Engineering is not currently a multi-campus unit. If future faculty or staff are hired at branch campuses we will modify our Tenure and Promotion procedures and documents, including those in departmental governance documents, to ensure that those faculty are included in matters of Tenure and Promotion and that they have a voice in promotion issues. We recognize the principles of equity of assignment, resources and opportunities of faculty and staff across a multi-campus university.

This document shall not be construed in any manner so as to conflict with the Laws of the State of Florida, the policies of the Board of Governors, the rules, regulations, and policies of the University of South Florida or the regulations and policies of the Colleges of Engineering or Medicine.

INTRODUCTION

The Department of Medical Engineering at USF is a jointly governed department between the Colleges of Engineering and Medicine. It is a research-intensive, nationally-ranked department that is judged by peer researchers, institutions, and other stakeholders based on many factors, most important of which are the quality and productivity of its research and the quality of preparation of the graduates from its biomedical engineering academic programs. Every faculty member is expected to contribute to elevating the national and international reputation of the Department. Granting of tenure within the department is a privilege that carries enormous responsibility including the continued maintenance of the highest academic standards, exemplary and increasing levels of scholarly output, sustained teaching excellence, and ongoing substantive service to the department, college, university, community, and profession. Likewise, granting of promotion in academic rank to a faculty member is a privilege that recognizes an individual faculty member's continued growth in their academic career and the achievement of increasing levels of accomplishment in research,

teaching, and service. The following guidelines reflect the expected performance requirements for faculty seeking promotion and/or tenure within the department.

1. GENERAL CRITERIA AND PROCEDURES

- 1.1. The procedures for appointment of the Tenure and/or Promotion Committees within the Medical Engineering Department and the rules on voting on tenure and promotion cases are specified in the Department Faculty Governance Bylaws.
- 1.2. Evaluation criteria regarding tenure and/or promotion are based upon USF guidelines. Candidates should also familiarize themselves with the University Tenure and Promotion Guidelines, the Tenure and Promotion Procedures of the College to which they are appointed (Engineering or Medicine), and the relevant sections of the faculty Collective Bargaining Agreement. The guidelines in the present document are in addition to those specified in the university and college guidelines.
- 1.3. Tenured, tenure-track, and non-tenure-track faculty members submit annual reports each year and are given annual evaluations based on their performance with regard to research, teaching, and service. During tenure and/or promotion deliberations, the Department Chair and the relevant tenure and/or promotion committees will carefully consider these annual evaluations, but they are not bound by those evaluations since a holistic assessment of each candidate for tenure and promotion will be conducted.
- 1.4. In accordance with university requirements, candidates for tenure and/or promotion are expected to demonstrate excellence in research, excellence in teaching, clinical care (if applicable) and substantive service. It is recognized that the specific criteria for evaluation of a particular faculty member could vary within the department due to the diverse research, teaching, and service contributions of faculty, and the differences in college research, teaching, and service requirements, and that each case must be assessed individually. It is the candidate's responsibility to provide convincing evidence of quality in each portion of the tenure and/or promotion portfolio.
- 1.5. An extensive mid-tenure review will be conducted, typically during the third tenure-earning year, for tenure-track faculty. For individuals credited with tenure-earning service at the time of initial appointment, the review will be conducted at the approximate mid-point of the probationary period. The mid-tenure review will be conducted by the department's Tenure and Promotion Committee, the Department Chair, the College of Engineering Faculty Governance Committee or the MCOM APT Committee for MCOM faculty, and the Dean.

All mid-tenure reviews shall address the candidate's performance in the areas of research, teaching, clinical care (if applicable) and service occurring during the preceding tenure-earning years. All reviews will utilize the department and college criteria for tenure and promotion and will assess overall performance in light of mid-point expectations. The materials required for this review will consist of the same types of materials used for tenure review including, but not limited to, a current vita; annual evaluations; student/peer evaluation of teaching; selected examples of teaching materials; documentation of learning outcomes and measures of teaching success; products of research/scholarship/creative activity; service commitments and accomplishments; and a brief self-evaluation by the faculty member. The mid-tenure review is intended to be informative: to be encouraging to faculty who are making solid

progress toward tenure and instructional to faculty who may need to improve in selected areas of performance. Where progress is significantly lacking and apparently unlikely going forward, nonrenewal may result.

- 1.6 The faculty member must be held to high ethical and moral standards, observing the professional code of conduct of USF. The faculty member should also be a role model for students and fellow faculty members, and is expected to work in the Department in a collegial manner.
- 1.7 Faculty are encouraged to meet with the Chair and the Dean and/or relevant member of the Dean's Office (i.e., Executive or Associate Dean) before starting the process of applying for tenure and promotion.

2. CRITERIA FOR TENURE: COLLEGE OF ENGINEERING APPOINTMENTS

Tenure-eligible faculty in the Medical Engineering Department with >50% appointment in the College of Engineering are reviewed for tenure based on three criteria: research, teaching, and service, which are elaborated below.

2.1 RESEARCH Criteria for Tenure

- 2.1.1. Faculty are expected to conduct high-quality research and produce scholarly works from that research that are recognized at national and international levels, on a sustained basis., comparable to faculty at highly-ranked Research One universities.
- 2.1.2. The candidate for tenure can provide evidence that they can meet these research expectations at the level appropriate to the faculty's rank through the following research products including (but not limited to):
 - a. Publications in peer-reviewed journals, both quality (i.e., impact) and quantity
 - b. Publications in peer-reviewed conference proceedings
 - c. Review articles in peer-reviewed journals
 - d. Books, book chapters, and monographs
 - e. Publications in other forms such as non-refereed conference proceedings and published abstracts
 - f. Presentations at national and international conferences
 - g. Invited seminars and talks
 - h. Issued patents for research-related inventions
 - i. Scientific software, codes, and/or databases
 - j. Scientific instruments, devices or systems
- 2.1.3. Research productivity of a candidate should be consistent with the expectations of faculty members at the same rank at other leading departments in highly-ranked Research One Universities and peer institutions who are in the relevant field(s) of research in which the candidate engages, and conducts their research work. Research productivity can be demonstrated by a significant number of peer-reviewed journal articles published with a USF address and with the candidate as a senior or

corresponding author during their tenure earning years. To be considered as a high-quality, peer-reviewed journal during evaluations of tenure and/or promotion cases, a peer-reviewed journal must be indexed by ISI (Institute of Science Index) and/or Scopus.

- 2.1.4. A candidate needs to establish a clear record of independent, sustained research effort. While collaborations are encouraged, it is expected that a substantial number of publications over the tenure-earning years would result from research efforts led by the candidate and for whom the resulting scholarly products would have the candidate as a principal author, defined as being either first author or the recognized driver of the work (often communicating, senior or last author). It is expected that a candidate will publish most of their articles in the tenure-earning period with a USF address and with their students and postdocs as co-authors.
- 2.1.5. A candidate may submit evidence of the relevance and importance of published work in the form of citation data, journal impact factors, highlights in the popular press, or other similar such measures and data.
- 2.1.6. The letters of external reviewers provide independent judgements of the quality and importance of a candidate's research and will be carefully considered. Letters cannot be requested from the candidate's Ph.D. advisor, from co-authors on manuscripts, or co-investigators on grants, or any collaborator that may be perceived as a conflict of interest. For Full Professor, the letters should reflect that the applicant is an internationally-recognized leader in their field. External letters are requested by the Chair once external reviewers are approved by the Dean's Office, who has the final approval on the final list of external reviewers. Letters should be at the faculty rank or higher of the proposed appointment or promotion.
- 2.1.7. A candidate must secure extramural funding at a level sufficient to sustain their research and fully support multiple graduate students on an ongoing/yearly basis. Support of post-doctoral fellows will also be considered. Multiple, nationally competitive peer-reviewed, multi-year research grants as PI, Multi-PI, and/or Co-I are expected during the tenure-earning years, with at least one as PI. Examples of nationally competitive grants are from federal agencies such as NSF, NIH, DOD, DOE, etc. Candidates should demonstrate the ability to continue to sustain their research program at a nationally competitive level into the future (e.g., renewal of a federal grant and significant and sustained effort to secure funding via submission of grant proposals). Two key metrics on securing sustainable extramural competitive funding are the number of fully funded doctoral students and the research expenditures on a sustainable yearly basis, and compared to top ranked departments in research universities in the US.
- 2.1.8. Active dissemination of research results through regular presentations at national and international professional meetings is expected.
- 2.1.9. Invited talks at peer institutions and departments, invited presentations and talks at major conferences, and prizes from professional societies and other organizations recognizing the scholarly work of a candidate bring prestige to the to the candidate, the department, and to the university, and will be viewed as an additional demonstration of research productivity and impact.

2.2 TEACHING Criteria for Tenure

- 2.2.1 Faculty are expected to advance students' learning, intellectual development, and career preparation. Towards this goal, candidates for tenure and promotion are expected to

achieve excellence in teaching as evidenced by a successful track record of classroom or online teaching, mentoring of undergraduate and graduate students, and active participation in curricular development and/or innovation in engineering education.

- 2.2.2 Generally, a candidate should have taught at the undergraduate level during their tenure earning years and may have had the opportunity to teach at the graduate level as well. These teaching duties will include required courses in the undergraduate curriculum and may involve teaching some of these courses multiple times.
- 2.2.3 A candidate is expected to demonstrate their proficiency in classroom teaching. Materials evaluated may include:
- a. Course syllabai and instructional materials (e.g., tests, lectures, etc.)
 - b. Numerical student evaluations and narratives of students' comments
 - c. Evidence of student learning outcomes
 - d. Peer evaluations
 - e. Scholarly publications regarding pedagogical advances and research
 - f. Teaching awards and other recognitions of teaching accomplishments
 - g. Documentation of innovative teaching methods and attendance at teaching workshops
 - h. Documentation of incorporating educational research findings in courses taught
- 2.2.4 A candidate may demonstrate significant teaching accomplishments during their tenure-earning period including:
- a. Publishing a textbook(s)
 - b. Developing and teaching a new course(s)
 - c. Being awarded a teaching-related, peer-reviewed grant(s)
 - d. Scholarly papers published on teaching and engineering education
- 2.2.5 During the tenure-earning period, the candidate is expected to have acted as the major professor for a number of Ph.D. students commensurate with the rank of the candidate during the tenure-earning period as would be signified by being consistent with an average of Ph.D. students advised and graduated by their peers in similar research fields at their same professorial rank at leading peer departments and institutions. For example, for faculty hired in as an Assistant Professor and who complete their tenure-earning years at that rank, it would be expected that the candidate would advise a minimum of 2 graduate students and have them successfully defend their Ph.D. degrees by the point in time at which tenure would be granted.
- 2.2.6 In addition to funding and supervision of graduate students, candidates are encouraged to have also supervised undergraduate research students and post-doctoral researchers.
- 2.2.7 It is also expected that candidates will have served on the thesis and dissertation committees for graduate students within the department or university.

2.3 SERVICE Criteria for Tenure

- 2.3.1 The service component of a successful tenure package should be commensurate with the activities and performance expected of the current rank of the candidate. It is expected that all successful tenure packages will have some level of service at the national and/or international level, with the appropriate amount and stature of such service external to the university increasing with rank of the candidate.
- 2.3.2 The types of service activities expected of a candidate for tenure who have completed their tenure-earning years as an Assistant Professor include:
- a. Active performance in departmental committees.
 - b. Regular reviews of manuscripts for peer-reviewed journals.
 - c. Membership on review panels for grant proposals to external funding agencies.
 - d. Service to national and international professional societies in fields relevant to biomedical engineering (e.g. Biomedical Engineering Society, IEEE) and/or their biomedical field (e.g. Society for Neuroscience). Types of service appropriate at this level include participation in national level conferences as session organizers or chairs and other similar early leadership positions.
- 2.3.3 The types of service activities expected of a candidate for tenure who have completed their tenure-earning years as an Associate Professor include:
- a. Active performance in departmental, college, and university committees.
 - b. Regular reviews of manuscripts for peer-reviewed journals.
 - c. Membership on review panels for grant proposals to external funding agencies.
 - d. Service to national and international professional societies in fields relevant to biomedical engineering (e.g. Biomedical Engineering Society, IEEE) and/or their biomedical field (e.g. Society for Neuroscience). Types of service appropriate at this level are expected to go beyond early leadership roles to include roles such as standing committees (e.g., BMES Accreditation Activities) and other similar mid-level leadership positions within such professional societies.
 - e. Membership on journal editorial boards.
 - f. Recognized achievements in administration, including director of center, fellowship, graduate programs.
- 2.3.4 The types of service activities expected of a candidate for tenure who have completed their tenure-earning years as a Full Professor include:
- a. Active performance in departmental, college, and university committees.
 - b. Regular reviews of manuscripts for peer-reviewed journals.
 - c. Membership on review panels for grant proposals to external funding agencies.
 - d. Service to national and international professional societies in fields relevant to biomedical engineering (e.g. Biomedical Engineering Society, IEEE) and/or their biomedical field (e.g. Society for Neuroscience). Types of service appropriate at this level are expected to go beyond mid-level leadership roles to include roles such as major officer and board positions (e.g. BMES President, BMES Executive Director, etc.), organizing special sessions and meetings, and other similar high-level leadership positions within such professional societies, at national and international levels.

- e. Membership on journal editorial boards and/or holding the position of Chief Editor or the equivalent of such boards.
- f. Recognized achievements in administration, including director of center, fellowship, graduate programs.

3. CRITERIA FOR PROMOTION: COLLEGE OF ENGINEERING APPOINTMENTS

3.1 STANDARDS for Promotion to Associate Professor

- 3.1.1 A minimum of 5 complete years of continuous and productive accomplishment as an Assistant Professor at the University, or the equivalent. In general, promotion to Associate Professor is bundled with tenure review.
- 3.1.2 A record of excellence in research, teaching, and service that has led to significant national recognition for the candidate and their work amongst their peers at leading , highly-ranked Research One institutions and departments is the overarching requirement for promotion to the rank of Associate Professor. This record of excellence should support and predict a further increase in the productivity of the candidate and the impact and recognition of their work in the years ahead.
- 3.1.3 A record of excellence in research and scholarship is signified by a track record of continued research funding through multiple extramural multi-year research grants as PI, Multi-PI, and/or Co-I, with at least one as PI (e.g., externally peer-reviewed grants from federal agencies such as NSF, NIH, DOE, etc. and/or industrial grant funding of work leading to publication of scholarly products), a significant list of invited presentations (e.g., at conferences, other academic departments, etc.), and a strong sustained record of peer-reviewed publications as an Assistant Professor (e.g., candidate is a senior or corresponding author in a top journal in biomedical engineering or their biomedical field). Two key metrics on securing sustainable extramural competitive funding are the number of fully funded doctoral students and the yearly research expenditures. Patents and commercial licensing of such patents will also be viewed positively in terms of demonstration of research productivity if such patents result from extramurally funded research and the underlying research work leads to other scholarly products. Two key metrics on securing sustainable extramural competitive funding are the number of fully funded doctoral students and the yearly research expenditures on a sustainable yearly basis, and compared to top ranked departments in research universities in the US.

National recognition of the research excellence and scholarship of a candidate for promotion to Associate Professor may be demonstrated through a variety of means including quality and quantity of citations of their work, invitations to present at major national scientific meetings, research laboratories, and/or academic departments, funding of federal peer-reviewed and/or industrial grants, and receipt of awards from journals, professional societies, conferences, industry, and/or other scholarly bodies (e.g., early and mid-career awards for research).

Letters from external reviewers who are highly distinguished in the candidate's field(s) of research and who can comment on the importance and impact of the candidate's scholarly work are a critical element to supporting and justifying the award of promotion for a candidate. At least 10 letters will be requested and at least 5 will be submitted. All letters received will be included in the Applicants packet. Letters will not be requested

from the candidate's Ph.D. advisor, from co-authors on manuscripts, co-investigators on grants, or any collaborator that may be perceived as a conflict of interest. External letters are requested by the Chair once external reviewers are approved by the Dean's Office, who has the final approval on the final list of external reviewers.

- 3.1.4 A record of excellence in teaching can be demonstrated through a variety of means including: student teaching ratings of the candidate on par with the average ratings within the Department and/or College of Engineering, peer evaluations of teaching, data demonstrating that students are achieving learning outcomes of the courses which the candidate has taught, receipt of awards by the candidate for their teaching and/or pedagogical work and innovations, receipt of research awards by undergraduate, graduate, and postdoctoral students whom the candidate serves as a mentor/advisor for their research, and creation of new courses and/or course products such as textbooks.
- 3.1.5 The candidate should show initiative to serve their professional community and the university beyond their assigned duties. These initiatives may be demonstrated through, for example, taking leadership roles within the department; serving on peer-reviewed study sections; taking the role of an Associate Editor or Guest Editor in a respected scientific or engineering journal; organizing regional and/or national meetings and workshops; standing for election in committees in national professional organizations, etc. Service activities that aid in further establishing the national reputation and visibility of the candidate and the Department are particularly encouraged at this level. One example that is common for candidates being promoted to Associate Professor within the Department is that they will have served as session chairs or in similar positions of leadership within BMES or IEEE at this point in their careers (or other similar organizations which have significant involvement by faculty from the biomedical engineering community). Community engagement may also be considered.

3.2 STANDARDS for Promotion to Full Professor

- 3.2.1 A record of sustained excellence in research, teaching, and service that has led to significant national and international recognition for the candidate and their work amongst their peers at leading, highly-ranked Research One institutions and departments around the world is the overarching requirement for promotion to the rank of Full Professor. It is generally expected that candidates would have 5 or more years of experience as an Associate Professor. Earlier eligibility may be considered for exceptional candidates with more than 3 years of experience. Exceptional candidates for early promotion will be identified through excellence and efforts that rise well above the normal assigned responsibilities of the candidate, compare favorably to the top US BME department faculty, and which positively impact the department, its students, the broader student community within the College of Engineering and the University of South Florida, and/or the biomedical engineering profession.
- 3.2.2 A record of sustained excellence in research and scholarship is signified by a track record of continued research funding through multiple extramural multi-year research grants as PI, Multi-PI, and/or Co-I, with at least one as PI generating a significant amount of yearly research expenditures, including the consistent yearly external support of several doctoral students (e.g., externally peer-reviewed grants from federal agencies such as NSF, NIH, DOE, etc. and/or industrial grant funding of work leading to publication of scholarly products). In addition, a significant list of invited presentations (e.g., at national and international conferences, other academic departments, etc.) and keynote/plenary

presentations (or their equivalent), and a strong, sustained record of peer-reviewed publications as an Associate Professor (e.g., candidate is a senior or corresponding author in top journals in biomedical engineering or their biomedical field). Patents and commercial licensing of such patents will also be viewed positively in terms of demonstration of research and innovation productivity if such patents result from extramurally funded research or the underlying research work leads to other scholarly products.

International recognition of the research excellence and scholarship of a candidate for promotion to Full Professor may be demonstrated through a variety of means including quality and quantity of citations of their work, invitations to present at major national and/or international scientific meetings, research laboratories, and academic departments around the world, continued funding of peer-reviewed and/or industrial grants to support multiple graduate students, and receipt of major awards from journals, professional societies, conferences, industry, and/or other scholarly bodies (e.g. significant mid-career level awards for research from national and/or international organizations, being recognized as a Fellow of professional societies such as BMES, AIMBE, AAAS, etc.).

Letters from external reviewers who are highly distinguished in the candidate's field(s) of research and who can comment on the importance and impact of the candidate's scholarly work at national and international levels are a critical element to supporting and justifying the award of promotion for a candidate. At least 10 letters will be requested and at least 5 will be submitted. All letters received will be included in the Applicants packet. Letters should not be requested from the candidate's Ph.D. advisor, from co-authors on manuscripts, or co-investigators on grants. One or more letters should be received from someone outside the U.S. who can speak to the international reputation of the candidate. Choosing the list of external reviewers is an interaction between the Chair and the candidate; and the final approval of the list of external reviewers is with the dean's Office.

- 3.2.3 A record of excellence in teaching can be demonstrated through a variety of means including: student teaching ratings of the candidate on par with the average ratings within the Department and/or College of Engineering, peer evaluations of teaching, data demonstrating that students are achieving learning outcomes of the courses which the candidate has taught, receipt of awards by the candidate for their teaching and/or pedagogical work and innovations, receipt of research awards by undergraduate, graduate, and postdoctoral students whom the candidate serves as a mentor/advisor for their research, and creation of new courses and/or course products such as textbooks.
- 3.2.4 The candidate should show a significant level of initiative to serve their professional community and the university beyond their assigned duties. These initiatives may be demonstrated through, for example, volunteering for committee assignments and substantial involvement in committees beyond what is considered regular faculty participation; taking leadership roles at the department, college or university levels; serving on multiple peer-reviewed study sections; taking the role of an Editor or Associate Editor in one or more respected scientific or engineering journals; organizing international meetings and workshops; standing for election in high-level committees and leadership positions within major professional organizations, etc. One example that is common for candidates being promoted to Full Professor within the department is that they will have served in a position of major leadership within BMES or IEEE at this point

in their careers (or other similar organizations which have significant involvement by faculty from the biomedical engineering community or their biomedical field). Community engagement may also be considered.

3.3 STANDARDS for Promotion to Instructor II

- 3.3.1 To qualify for promotion to Instructor II, an Instructor I is generally expected to compare favorably with comparable faculty in Research One universities and have 5 or more years of experience at Level I. Earlier eligibility may be considered for exceptional candidates, but a minimum of 3 years of experience as a Level I Instructor is required. Exceptional candidates for early promotion will be identified through quality and quantity of excellence, innovation in student learning and efforts that rise well above the normal assigned responsibilities of the candidate, and which positively impact the department, its students, the broader student community within the College of Engineering and the University of South Florida, and/or the profession of biomedical engineering and biomedical engineering education. These can include research/proposals/grants in student learning/instructional innovation, and refereed manuscripts. After the appropriate period of service, Instructors may apply to the department to be considered for a promotion based on meritorious performance.
- 3.3.2 In evaluating a candidate for promotion from Instructor I to Instructor II, the departmental Promotion Committee for the candidate will consider and rate all portions of the candidates assigned duties which, as averaged over the years of service being considered while in the Instructor I rank, constitute more than 10% of their total assigned duties during the evaluation period (i.e., for duties which have an average FTE greater than or equal to 0.10). The scale used in rating performance in each of the areas of assigned duties considered will use 5 ratings which (in order of decreasing ranking) are: Outstanding, Strong, Satisfactory, Fair, and Weak. In addition to review of annual evaluations in making decisions about the overall rating assigned to an assigned duty area, a comprehensive review of evidence provided by the candidate that demonstrates their performance in the assigned duty areas which exceed 10% of their effort over the time period being evaluated shall be conducted to assess the individual's holistic contributions to the department.
- 3.3.3 Excellence in the principal assigned duty for the Instructor applying for promotion is required. A candidate is expected to demonstrate proficiency in teaching and service following guidelines outlined in 2.2.3 and 2.3.2, respectively. The candidate must earn an overall and holistic rating of "Outstanding" in that principal assigned duty. Such excellence can be demonstrated by (and the associated rating informed from) various information supplied by the candidate, but this evaluation should be in concert with (though not solely determined by) the last five years of annual evaluations (or total number of yearly evaluations available if being considered early). If an individual has equal primary FTE assignments over the time period being considered, one must be designated as the primary area and ratings assigned accordingly. That is, the primary assigned duty area must be evaluated overall as "Outstanding."
- 3.3.4 An overall rating of "Strong" is required on any additional areas of assigned duties that average more than 0.10 FTE during the last five years of annual evaluations (or total number available if being considered early).

3.4 STANDARDS for Promotion to Instructor III

- 3.4.1 To qualify for promotion to Instructor III, an Instructor II is generally expected to have 5 or more years of experience at Level II, and meet or exceed accomplishments of comparable faculty at highly-ranked Research One universities. Earlier eligibility may be considered for exceptional candidates, but a minimum of 3 years of experience as a Level II Instructor is required. It is expected that for an Instructor II to be promoted to Instructor III that the individual will have achieved significant efforts and accomplishments in areas relevant to their assigned duties or which otherwise contribute to the mission of the department, college, and/or university. Examples of such accomplishments that recognize excellence in the candidate's efforts include, but are not limited to, receiving awards concerning their relevant efforts, publishing material in professional outlets (especially when receiving positive external attention), and developing innovations that have had a demonstrably positive effect in promoting the mission of the university. Exceptional candidates for early promotion will be identified through excellence and efforts that rise well above the normal assigned responsibilities of the candidate and which positively impact the department, its students, the broader student community within the College of Engineering and the University of South Florida, and/or the profession of biomedical engineering and biomedical engineering education. After the appropriate period of service, candidates at the rank of Instructor II may apply to the department to be considered for a promotion on the basis of meritorious performance.
- 3.4.2 In evaluating a candidate for promotion from Instructor II to Instructor III, the departmental Promotion Committee for the candidate will consider and rate all portions of the candidates assigned duties which, as averaged over the years of service being considered while in the Instructor II rank, constitute more than 10% of their total assigned duties during the evaluation period (i.e., for duties which have an average FTE greater than or equal to 0.10). The scale used in rating performance in each of the areas of assigned duties considered will use 5 ratings which (in order of decreasing ranking) are: Outstanding, Strong, Satisfactory, Fair, and Weak. In addition to review of annual evaluations in making decisions about the overall rating assigned to an assigned duty area, a comprehensive review of evidence provided by the candidate that demonstrates their performance in the assigned duty areas which exceed 10% of their effort over the time period being evaluated shall be conducted to assess the individual's holistic contributions to the department
- 3.4.3 Excellence in the principal assigned duty for the Instructor applying for promotion is required. A candidate is expected to demonstrate proficiency in teaching and service following guidelines outlined in 2.2.3 and 2.2.4 and 2.3.2 and 2.3.3, respectively. The candidate must earn an overall and holistic rating of "Outstanding" in that principal assigned duty. Such excellence can be demonstrated by (and the associated rating informed from) various information supplied by the candidate, but this evaluation should be in concert with (though not solely determined by) the last five years of annual evaluations (or total number of yearly evaluations available if being considered early). If an individual has equal primary FTE assignments over the time period being considered, one must be designated as the primary area and ratings assigned accordingly. That is, the primary assigned duty area must be evaluated overall as "Outstanding."

- 3.4.4 An overall rating of “Strong” is required on any additional areas of assigned duties that average more than 0.10 FTE during the last five years of annual evaluations (or total number available if being considered early).

4. CRITERIA FOR TENURE: COLLEGE OF MEDICINE APPOINTMENTS

Tenure-eligible faculty in the Medical Engineering Department with >50% appointment in the College of Medicine are reviewed for tenure based on the primary criterion of research and 2 out of 3 secondary criteria of their choosing at the time of evaluation: teaching, clinical care, and service. Secondary criteria may represent contributions of outstanding quality and importance but the quantity of contribution may be less than the primary criterion of research.

4.1 RESEARCH Criteria for Tenure

- 4.1.1 Faculty are expected to conduct high-quality research in basic, translational, clinical, epidemiology, biostatistics, or other health-related area and produce scholarly works from that research that are recognized at national and international levels.
- 4.1.2 The candidate for tenure can provide evidence that they can meet these research expectations at the level appropriate to the faculty’s rank through the following research products including (but not limited to):
- a. Publications in peer-reviewed journals over a sustained period
 - b. Publications in peer-reviewed conference proceedings
 - c. Review articles in peer-reviewed journals
 - d. Books, book chapters, and monographs
 - e. Publications of clinical observations, reviews, investigations, computer programs or contributions dealing with new clinical insights, improved methods or diagnosis and treatment and more effective delivery systems
 - f. Presentations at national and international conferences
 - g. Invited seminars and talks
 - h. Patents for research-related inventions
 - i. Scientific software, codes, and/or databases
- 4.1.3 Research productivity can be demonstrated by a significant number of peer-reviewed journal articles published with a USF address and with the candidate as a senior or corresponding author during their tenure earning years. To be considered as a high-quality, peer-reviewed journal during evaluations of tenure and/or promotion cases, a peer-reviewed journal must be indexed by ISI (Institute of Science Index) and/or Scopus. Publications from large multi-disciplinary studies may be included; but the candidate needs to have made documented, significant intellectual contributions to the work. Patent applications can be regarded as a peer-reviewed publication in a moderate-impact journal and patents issued as 2 high-impact publications.
- 4.1.4 A candidate needs to establish a clear, sustained record of independent research effort. While collaborations are encouraged, it is expected that a substantial number of publications over the tenure-earning years would result from research efforts led by the

candidate and for whom the resulting scholarly products would have the candidate as a principal author, defined as being either first author or the recognized driver of the work (often communicating, senior or last author). It is expected that a candidate will publish most of their articles in the tenure-earning period with a USF address and with their students and postdocs as co-authors (e.g., 15-25 or more publications since appointment to assistant professor with 7-10 as first or senior author). Impact factor and H-Index will be considered.

- 4.1.5 A candidate may submit evidence of the relevance and importance of published work in the form of citation data, journal impact factors, highlights in the popular press, or other similar such measures and data (e.g., publications in high quality journals may decrease the total number expected for advancement.)
- 4.1.6 The letters of external reviewers provide independent judgements of the quality and importance of a candidate's research at national levels and will be carefully considered.
- 4.1.7 A candidate must secure extramural funding at a level sufficient to sustain their research and support multiple graduate students. Nationally competitive, multi-year peer-reviewed research grants as PI or Multi-PI are expected during the tenure-earning years, with at least two such grants as PI or one such grant renewed as PI. Examples of nationally competitive grants are from federal agencies such as NSF, NIH, DOD, DOE, etc. K99 is not included as this is a mentoring grant. Candidate should also demonstrate the ability to continue to sustain their research program at a nationally competitive level into the future (e.g., PI/Multi-PI on at least one federal or foundation R01-equivalent grant that has been renewed or at least two current grants or current and prior funded grants). Licensing revenue from a patent will be assessed as evidence of research funding using the following metrics: \$50K = R23/R21, \$250K = R01, \$500K to \$1M = U01.
- 4.1.8 Active dissemination of research results through regular presentations at national and international professional meetings is expected.
- 4.1.9 Invited talks at peer institutions and departments, invited presentations and talks at major conferences, and prizes from professional societies and other organizations recognizing the scholarly work of a candidate bring prestige to the to the candidate, the department, and to the university and will be viewed as an additional demonstration of research productivity and impact.

4.2 TEACHING Criteria for Tenure

- 4.2.1 Faculty are expected to advance students' learning, intellectual development, and career preparation. Towards this goal, candidates for tenure and promotion are expected to achieve excellence in teaching of graduate and medical students and in mentorship of research and clinical trainees.
- 4.2.2 Generally, a candidate who spends time on educational activities would have participated in courses and lectures to graduate and medical students, residents, and clinical fellows during their tenure earning years. They may have had the opportunity to teach biomedical engineering students at the undergraduate level as well. These teaching duties may involve teaching or participating in some of these courses multiple times.
- 4.2.3 A candidate can demonstrate proficiency in teaching by the inclusion of didactic materials for evaluation, which may include:
 - a. Course syllabai and instructional materials (e.g., tests, lectures, etc.)

- b. Numerical student evaluations and narratives of students' comments
 - c. Peer evaluations
 - d. Scholarly publications regarding pedagogical advances and research
 - e. Teaching awards and other recognitions of teaching accomplishments
 - f. Documentation of innovative teaching methods and attendance at teaching workshops
 - g. Policy statements, assessment tool development, educational software, novel communications via podcasts, YouTube, etc. and other evidence of educational scholarship
 - h. Invitations to teach at other institutions including Grand Rounds
- 4.2.4 A candidate may demonstrate significant teaching accomplishments during their tenure-earning period including:
- a. Publishing a textbook(s)
 - b. Developing and teaching a new course(s)
 - c. Being awarded a teaching-related, peer-reviewed grant(s)
 - d. Scholarly papers published on teaching and engineering education
- 4.2.6 In addition to supervision of graduate students, candidates are encouraged to have also supervised undergraduate research students and post-doctoral researchers.
- 4.2.7 It is also expected that candidates will have served on the thesis and dissertation committees for graduate students within the department and university.

4.3 CLINICAL Criteria for Tenure

- 4.3.1 Faculty who spend significant time on clinically-related activities are expected to achieve excellence in clinical care through the development of an outstanding clinical reputation and referral practice.
- 4.3.2 The types of clinical activities expected of a candidate may include:
- a. Development of innovative approaches for diagnosis, treatment, or prevention of disease
 - b. Application of technology to clinical care
 - c. Establishment of recognized best practice guidelines
 - d. Demonstration of outstanding surgical skills or exceptional diagnostic acumen
 - e. Clinical teaching, mentoring, and evaluating
 - f. Publication of manuscripts, clinical observations, reviews, practice guidelines, patient care protocols, and innovative clinical devices.
 - g. Participation in multi-disciplinary conferences and tumor boards or similar examples of clinical service
 - h. Holding leadership roles in an affiliated hospital or healthcare organization or recognized achievement on behalf of such an organization

- 4.3.3 A candidate may demonstrate significant clinical accomplishment and recognition during their tenure-earning period including:
- a. Distinctions such as Best Doctors
 - b. State-wide pattern of clinical referrals
 - c. Being sought out for consultation by colleagues
 - d. Membership or fellowship in elected professional organization that denotes high level of clinical competency

4.4 SERVICE Criteria for Tenure

- 4.4.1 The service component of a successful tenure package should be commensurate with the activities and performance expected of the current rank of the candidate. It is expected that all successful tenure packages will have some level of service at the national and/or international level, with the appropriate amount and stature of such service external to the university increasing with rank of the candidate.
- 4.4.2 The types of service activities expected of a candidate for tenure who have completed their tenure-earning years as an Assistant Professor include:
- a. Active performance in departmental, college, and university committees.
 - b. Regular reviews of manuscripts for peer-reviewed journals.
 - c. Membership on review panels for grant proposals to external funding agencies.
 - d. Service to national and international professional societies in fields relevant to biomedical engineering (e.g. Biomedical Engineering Society) and/or their biomedical field (e.g. Society for Neuroscience). Types of service appropriate at this level include participation in national level conferences as session chairs and other similar early leadership positions.

5. CRITERIA FOR PROMOTION: COLLEGE OF MEDICINE APPOINTMENTS

5.1 STANDARDS for Promotion to Tenure-Earning Associate Professor

- 5.1.1 A minimum of 5 complete years of continuous and productive accomplishment as an Assistant Professor at the University, or the equivalent. In general, promotion to Associate Professor is bundled with tenure review.
- 5.1.2 A record of excellence in research that has led to significant regional recognition for the candidate and their work and a record of excellence in two focus areas (teaching, clinical, service) is the overarching requirement for promotion to the rank of Associate Professor. This record of excellence should support and predict a further increase in the productivity of the candidate and the impact and recognition of their work in the years ahead.
- 5.1.3 A record of excellence in research and scholarship is signified by a track record of continued research funding through extramural research funding (e.g., externally peer-reviewed grants from federal agencies such as NSF, NIH, DOE, etc. and/or industrial grant funding of work leading to publication of scholarly products), a significant list of invited

presentations (e.g., at conferences, other academic departments, etc.), and a strong record of peer-reviewed publications as an Assistant Professor (e.g., candidate as a senior or corresponding author in top journal in biomedical engineering or their biomedical field). Patents and commercial licensing of such patents will also be viewed positively in terms of demonstration of research productivity if such patents result from extramurally funded research and the underlying research work leads to other scholarly products. A strong candidate would have: i) 15 or more publications with 7 or more as corresponding or senior author and ii) serve as PI on at least 1 peer-reviewed federal or foundation R01-equivalent grant that has been renewed or as PI on at least 2 current grants or current and prior grant since appointment to Assistant Professor.

Recognition of the research excellence and scholarship of a candidate for promotion to Associate Professor may be demonstrated through a variety of means including quality and quantity of citations of their work, invitations to present at major national scientific meetings, research laboratories, and/or academic departments, funding of peer-reviewed and/or industrial grants, and receipt of awards from journals, professional societies, conferences, industry, and/or other scholarly bodies (e.g. early and mid-career awards for research). Letters from at least 5 external reviewers who are highly distinguished in the candidate's field(s) of research and who can comment on the importance and impact of the candidate's scholarly work are a critical element to supporting and justifying the award of promotion for a candidate.

- 5.1.4 A record of excellence in teaching can be demonstrated through a variety of means including: student teaching ratings of the candidate on par with the average ratings within the Department and/or College of Medicine, peer evaluations of teaching, data demonstrating that students are achieving learning outcomes of the courses which the candidate has taught, receipt of awards by the candidate for their teaching and/or pedagogical work and innovations, receipt of research awards by undergraduate, graduate, and postdoctoral students whom the candidate serves as a mentor/advisor for their research, and creation of new courses and/or course products such as textbooks.
- 5.1.5 A record of excellence in clinical care can be demonstrated through several means including: regional clinical reputation, state-wide pattern of clinical referrals, leadership roles in affiliated hospitals or healthcare organizations, recognition of superior clinical accomplishments such as Best Doctors and being sought out for consultation by colleagues, invited participation in multi-disciplinary conferences and clinical review boards, membership in elected professional organization that denotes high level of clinical competency, and board or professional certification in their specialty.
- 5.1.6 A record of excellence in service to their professional community and the university can be demonstrated in many different ways. These contributions may be demonstrated through, for example, taking leadership roles within the department; serving on peer-reviewed study sections; taking the role of an Associate Editor or Guest Editor in a respected scientific or engineering journal; organizing regional and/or national meetings and workshops; standing for election in committees in national professional organizations, etc. Service activities that aid in further establishing the reputation and visibility of the candidate and the Department are particularly encouraged at this level. Community engagement may also be considered.

5.2 STANDARDS for Promotion to Tenure-Earning Full Professor

- 5.2.1 A record of sustained excellence in research, teaching, and service that has led to significant national and international recognition for the candidate and their work amongst their peers at leading institutions and departments around the world is the overarching requirement for promotion to the rank of Full Professor. It is generally expected that candidates would have 5 or more years of experience as an Associate Professor. Earlier eligibility may be considered for exceptional candidates with more than 2 years of experience. Exceptional candidates for early promotion will be identified through excellence and efforts that rise well above the normal assigned responsibilities of the candidate and which positively impact the department, its students, the broader student community within the Morsani College of Medicine or the College of Engineering, and the University of South Florida, and/or the biomedical engineering profession
- 5.2.2 A record of sustained excellence in research and scholarship is signified by a track record of continued research funding through serving as PI/Multi-PI on multiple multi-year extramural research grants (e.g. externally peer-reviewed grants from federal agencies such as NSF, NIH, DOE, etc. and/or industrial grant funding of work leading to publication of scholarly products), a significant list of invited presentations (e.g., at conferences, other academic departments, etc.) and keynote/plenary presentations (or their equivalent), and a strong record of peer-reviewed publications as an Associate Professor (e.g., candidate as a first, senior or corresponding author in top journals in biomedical engineering or their biomedical field). Patents and commercial licensing of such patents will also be viewed positively in terms of demonstration of research productivity if such patents result from extramurally funded research the underlying research work leads to other scholarly products. A strong candidate would have: i) 15 or more publications with 7 or more as first, corresponding or senior author and ii) serve as PI on at least 1 peer-reviewed federal or foundation R01-equivalent grant that has been renewed, or as PI on at least 2 current multi-year grants or current and prior grant since appointment to Associate Professor.

National and international recognition of the research excellence and scholarship of a candidate for promotion to Full Professor may be demonstrated through a variety of means including citations of their work, invitations to present at major national and international scientific meetings, national research laboratories, and/or academic departments around the world, continued funding of peer-reviewed and/or industrial grants, and receipt of major awards from journals, professional societies, conferences, industry, and/or other scholarly bodies (e.g., significant mid-career level awards for research from national and/or international organizations, being recognized as a Fellow of professional societies. Letters from at least 5 external reviewers who are highly distinguished in the candidate's field(s) of research and who can comment on the importance and impact of the candidate's scholarly work are a critical element to supporting and justifying the award of promotion for a candidate.

- 5.2.3 A record of excellence in teaching can be demonstrated through a variety of means including: student teaching ratings of the candidate on par with the average ratings within the Department and/or College, peer evaluations of teaching, data demonstrating that students are achieving learning outcomes of the courses which the candidate has taught, receipt of awards by the candidate for their teaching and/or pedagogical work and innovations, receipt of research awards by undergraduate, graduate, and postdoctoral students whom the candidate serves as a mentor/advisor for their research, and creation of new courses and/or course products such as textbooks. Successful mentorship of graduate students and/or postdoctoral with T32 or K awards is expected.

- 5.2.4 A record of excellence in clinical care can be demonstrated through several means including: national clinical reputation, region-wide pattern of clinical referrals, leadership roles in affiliated hospitals or healthcare organizations, recognition of superior clinical accomplishments such as Best Doctors and being sought out for consultation by colleagues, invited participation in multi-disciplinary conferences and clinical review boards, membership in elected professional organization that denotes high level of clinical competency, and board or professional certification in their specialty.
- 5.2.5 The candidate should show a significant level of service their professional community and the university beyond their assigned duties, particularly if Service is an area of Focus. These initiatives may be demonstrated through, for example, volunteering for committee assignments and substantial involvement in committees beyond what is considered regular faculty participation; taking leadership roles at the department, college or university levels; serving on multiple peer-reviewed study sections; taking the role of an Editor or Associate Editor in one or more respected scientific or engineering journals; organizing national and/or international meetings and workshops; standing for election in high-level committees and leadership positions within major professional organizations, etc. One example that is common for candidates being promoted to Full Professor within the department is that they will have served in a position of major leadership within BMES at this point in their careers (or other similar organizations which have significant involvement by faculty from the biomedical engineering community or their biomedical field). Community engagement may also be considered.

6. DEPARTMENTAL TENURE AND PROMOTION PROCESS

- 6.1 Spring of the year prior to tenure or promotion evaluation
- a. The candidate should attend a tenure and promotion workshop and obtain the current schedule for the tenure review process. They should review the process, the schedule and read the University, College, and Department tenure guideline documents.
 - b. The candidate confers with the Chair regarding the application. This is especially important if there is time-toward tenure, a question of eligibility, or if the likely success of the application seems uncertain.
 - c. Following conversation and a dialogue with the Department Chair, the candidate submits a list of 10 potential external reviewers according to the guidelines above. This list should include the name, rank, institution, contact information, and enough biographical information for the Chair and Dean to assess their qualifications for the review. The list must be approved by the Chair and the Dean's office (Engineering, Dean's office approval not required for Medicine). Note, the candidate may not contact potential reviewers during development of the list, immediately prior to the application or during the evaluation process.
 - d. Candidate submits an extended CV to the Chair in May along with 3 pdf reprints of significant research publications. These materials are to send to external reviewers who will evaluate the candidate's research program. The publication and grant listings should be annotated to be clear about who did the work, where

it was done, and in the case of grants, the status of the candidate (e.g., co-PI or PI), the total amount of the grant, and what share of the grant funding (direct + indirect costs) is expected to come to the candidate. There should be a general description of the research program and projects in the candidate's laboratory, both current and future plans.

- 6.2 For Engineering, the Chair sends requests for letters from potential external reviewers, which generally involves two-steps. For MCOM, these letters are requested by the Office of Faculty Affairs. Initially an email inquiry is made to find out if the individual is available to serve as a reviewer and, if so, a formal letter of request is made with full instructions, due date, or information on how to access materials. Templates for the initial ask and formal request are provided in the Appendix. All requests for letters must be included along with responses in the candidate's package. The Chair follows the College Timetable to obtain the external letters.
- 6.3 In early August (date set by the current year tenure evaluation schedule), the completed full tenure applications are brought to the Chair (uploaded to Archivum for Engineering, MS Teams for MCOM), who reviews them and forwards them to the Dean's office. Note that a table should be completed by the candidate (and verified by the Chair) that lists all journals in the publication list (with author position), journal impact factor, journal rank within field, and citation counts. This table should be included on a separate page at the end of the publication list in the tenure application.
- 6.4 The Chair receives verified T&P files from the Dean's Office and gives the files to the Department Tenure and Promotion committee for evaluation via Archivum.
 - a. Tenure and Promotion committee elects a chair according to the Department of Medical Engineering governance document. The chair's responsibility is to schedule the review of the applicant's files and meetings needed to discuss each case. The chair of the committee should ensure that the review is completed on time.
 - b. Tenure and Promotion committee meet in early Fall:
 - i. Applications are discussed with regard to research, teaching, and service, benchmarking against faculty accomplishments at Research One universities
 - ii. Committee provides a letter summarize the discussion at the meeting in the areas of research, teaching, and service.
 - iii. Committee votes on granting tenure/promotion by secret ballot.
 - c. The chair of the Tenure and Promotion committee is responsible for inserting evaluations and vote counts in application package prior to submission deadline to Dean's Office for the Chair's review.
- 6.5 The Chair then completes the evaluation by providing his/her written review of the applicant. The completed application goes to the Dean's office of the College to which the

candidate is appointed (Engineering or Medicine). With this, the Departmental input is complete.

AMENDMENTS

Any faculty member of the Department of Medical Engineering may propose amendments to these Guidelines for Tenure and Promotion. A proposed amendment must be submitted in writing to the Department Chair for further consideration. The Department Chair, in consultation with the Associate Chair, will then present the proposed amendment, an analysis of the impact of the proposed amendment, and any suggestions for changes to the proposed amendment to the Department at a faculty meeting, along with a recommendation on whether to accept or reject the amendment. This review of the proposed amendment and its presentation to the Department at a faculty meeting must be completed within 8 weeks of the original submission of the proposed amendment to the Department Chair, unless that 8 week period ends outside of the normal Fall and Spring academic semesters, in which case it must be completed within the first 4 weeks of the next available Fall or Spring academic semester. Once presented to the Department at a faculty meeting, a vote on the amendment will be taken at the next faculty meeting which occurs at least one week later than the meeting at which it was presented. The vote should be by secret written ballot. A 2/3 vote of all voting faculty members is necessary to pass such amendments. Faculty not in residence, such as those on Sabbatical, may submit their votes via mail or other equivalent means.

DOCUMENTATION OF REVISIONS

DATE	DESCRIPTION
July 1, 2020	First version of the document was created.

APPENDIX

1. Template for initial ask to potential letter writers:

To: <email address>

Subject: Request for Evaluation

Dear Professor <Y>,

Professor <X> is being considered for <promotion and/or tenure> to <Associate/Full Professor> in the Department of Medical Engineering at the University of South Florida. As you know, promotion and tenure recommendations are among the most important decisions that a department, college, and university must make. External letters from experts in Professor <X's> field contribute substantially to the academic review process, and I am writing to find out if you would be available and willing to review Professor <X's> accomplishments. The evaluation letter would be due by August xx, 20xx.

I hope you are available to write the evaluation, and I would greatly appreciate your letting me know in the next two weeks if you are able to do so. If you are available, I will send further instructions and copies/link of Professor <X's> material.

2. Template for formal request to letter writers:

Dear Professor <Y>,

Thank you for agreeing to write a letter evaluating the work of Professor <X> who is being considered for <tenure and/or promotion> to <Associate/Full Professor> in the Department of Medical Engineering at the University of South Florida (USF).

To assist you in writing this evaluation, I have included Professor <X's> Curriculum Vitae and research and teaching statements and this link <url address> to the Tenure and Promotion guidelines of the USF Medical Engineering Department. I would like to ask that your letter of evaluation include:

- A brief statement describing the context of your knowledge of Professor <X>
- An evaluation of Professor <X's> achievements and impact on his/her field,
- Any specific comments that you might have regarding the depth, originality, importance, significance, visibility, productivity, and independence of his/her contributions.

Under existing agreements and regulations of the State of Florida, your written comments would be part of Professor <X's> Tenure and Promotion file, and available for his/her review. I do not expect you to make a tenure recommendation as such. However, evaluative comments based upon your knowledge and appreciation of the field and its standards will be a significant contribution to our review. Although you may not be familiar with Professor <X's> teaching and service, we would be grateful if you would share any comments that you have on these activities as well. Please keep in mind that your assessment should be based on Tenure and Promotion criteria outlined by the USF Medical Engineering Department.

The Department is aware that requests such as this are time-consuming, and I am very grateful to you for taking on this task. If you have any questions, would like additional materials, or will have any difficulty responding in time, please call me at xxx-xxx-xxxx or send e-mail to <xxxxxxxxx@usf.edu>. In order to meet the School and University deadlines, I will need your letter by Aug xx, 20xx.

Thank you for agreeing to do this. I look forward to hearing from you.