6.6 Demonstration of Attainment of Promotion and/or Tenure Criteria for Tenure-Line Faculty

Governing Policies

Section 8, Faculty Handbook – Promotion and Tenure

Procedure

This section seeks to define clear expectations for Mines faculty members regarding Promotion and Tenure (P&T). It was drafted by a committee of faculty members, including the Provost, and approved by the Mines Faculty Senate on April 26, 2016. Any substantive amendments to this section must be approved by the Faculty Senate; non-substantive edits (such as clarifications or refinements in wording, organization, etc.) may be made in consultation with the Faculty Senate President.

Reviewers at all levels shall consult this document -- in conjunction with pertinent sections of the Mines Faculty Handbook -- and consider these criteria in evaluating P&T applications. Guidelines and expectations for each of the various P&T review groups are provided in Section III below. In the event of a conflict between the Handbook and this document, the Handbook shall prevail.

I. Defining a Path to Excellence

Mines is committed to excellence and impact through its teaching, scholarship (research), and service. Mines aspires to be a leading STEM-focused university, known for the uniqueness and quality of its programs, strength of its faculty, success of its graduates, its innovations and entrepreneurial output, strong relationships with industry, and the impact that all of these have locally, nationally, and globally.

The University expectations for P&T discussed below are aligned with Mines' aspirations and allow for further specification at the portfolio, Department, and Program levels.

II. University Expectations of Tenure-Line Faculty Members Seeking Promotion and Tenure, and Example Evaluation Elements

The following expectations for P&T are cumulative, as a faculty member being considered for promotion and/or tenure at a higher rank shall meet all the expectations for that specific evaluation as well as all the expectations for lower level advancements.

The hiring process should be considered a first step in the promotion and tenure process. Mines expects that evaluations of faculty candidates consider each candidate's qualifications and projected future development relative to its P&T expectations; it is also important that the P&T expectations are communicated to the prospective candidates. This is important to ensure that new faculty members arrive at Mines with the expectation they will move through the P&T process successfully and in a timely fashion.

A. Advancement from Assistant/Associate Professor without Tenure to Associate Professor with Tenure

The University's expectation is that all faculty members hired as tenure-track assistant or associate professors will achieve tenure by building records that include sustained and impactful contributions in teaching, scholarship, and mentoring, and effective contributions to both University and professional service.

Those receiving favorable recommendations for promotion and tenure will have a record of accomplishments such that evaluators conclude that the applicant can and will continue to contribute to the goals of the Department, portfolio, and Mines at a level expected of Associate Professors.

The following are expected as appropriate to the particular department or program:

- Dedicated, high quality student instruction at both the undergraduate and graduate levels, where these programs exist, at typical program instructional loads.
- Demonstrate potential for national and international professional recognition.
- Successful mentoring and completion of graduate students at the PhD, MS-thesis, and MS-non-thesis levels, where those graduate programs exist.
- Impactful and sustained scholarship, which may include entrepreneurial outcomes.
- Demonstrated ability to attract external resources as needed to support a strong scholarship program.
- A history of professional, respectful, and ethical interactions with other faculty members, students, and staff.
- Professional service contributions that enhance the faculty member's visibility and the visibility of Mines.
- University service that demonstrates measurable contributions to Mines.

More details on possible paths to success are outlined below.

Consistent with Mines' "excellence" and "impact" goals discussed above, the success and impact of graduate student mentoring, scholarship, and service are judged relative to norms at comparable programs at peer and aspirational peer universities.

At Mines, a faculty member must go up for tenure no later than the fall of their 6th year as a T/TT professor, unless an extension has been granted. The Faculty Handbook permits consideration of tenure and promotion earlier than the 6th year. Two early-consideration situations exist: (a) faculty members who start their career as Assistant Professors at Mines, and (b) faculty members who are hired at Mines after several successful years at a peer university or other entity (e.g., government laboratory).

For situation (a), candidates are expected to demonstrate a very strong case of sustainable scholarship and success in teaching,

For situation (b), the candidate's performance at their previous institution(s) should be given full credit in the evaluation of tenure and/or promotion at Mines.

In either scenario, the candidate shall be evaluated solely on the strength of their record in meeting the criteria outlined here, not on time served.

Length of service at Mines or elsewhere is not a specific consideration, and candidates seeking early tenure shall be held to neither a higher nor a lower standard than those of other candidates.

Prior to submittal of a completed package for review, potential candidates are strongly encouraged to discuss their cases with the chair of the Departmental Promotion and Tenure Committee (DPT), the Department Head, and colleagues beyond their department.

Examples of successful teaching for those promoted to Associate Professor with tenure may include:

- Dedicated, high-quality student instruction at the undergraduate and graduate levels as demonstrated by the following: student evaluations, peer evaluations/observations, a teaching portfolio that includes examples of teaching methods and/or effectiveness, teaching statements, and teaching awards. In general, it is expected that all faculty members participate in the teaching mission of the Department/Program, portfolio, and Mines by teaching courses that are required by degree programs, and teach and teach well at both the undergraduate and graduate levels.
- Designing or leading of classroom activities that enhance the educational experience or that are important to the teaching mission, including leading undergraduate and graduate independent studies, advising senior design teams, teaching field session, etc.
- Development and implementation of highly effective or innovative teaching methods and incorporation of feedback from formalized assessments, where appropriate.
- Development of teaching infrastructure.
- Developing new courses or creating enhancements to existing course structures.
- Demonstration of successful out-of-classroom activities that enhance learning or the student experience, including relevant publications, participation in workshops and development activities to improve as an instructor.
- Demonstrating effectiveness in creating an academic environment that is open, supportive, and encouraging to all students, including development of particularly effective strategies for the educational advancement of students in various underrepresented groups.
- Demonstrating quality mentoring and the successful completion of graduate students at the PhD or MS-thesis levels, where graduate programs exist, and/or evidence that current PhD students are on track to graduate (e.g., published journal papers, outputs of research co-authored by graduate students, completed milestone exams, etc.). Evaluators may also consider the post-graduate placement and career success of graduated students as indicators of successful graduate student mentoring. Significant mentoring, supervision, or participation in non-thesis master's programs may also be relevant.
- Textbooks, reports, circulars, and similar publications normally are considered evidence of teaching ability or public service. However, contributions by faculty members to the professional literature or to the advancement of professional practice or professional education, including contributions to the advancement of equitable access and diversity in education, should be judged creative work when they present new ideas or original scholarly research.
- Exhibiting the ability to acknowledge problems encountered when teaching and to make appropriate adjustments with the goal of continuous improvement.

Examples of activities that demonstrate impactful and sustained scholarship (which may include entrepreneurial outcomes) for those promoted to Associate Professor with tenure may include:

- Peer-reviewed archival publications, including journal articles, book chapters and monographs, and peer-reviewed conference presentations/publications. Candidates should provide supporting evidence (for example, press coverage, journal acceptance rates) that will yield insight into the quality and impact of any work reported.
- Documented use of the output from the candidate's research and entrepreneurial activities by others for their research and entrepreneurial activities, where examples might include working with industry, governments or municipalities to enhance operations via diffusion of technology into practice; citations in policy briefs or policy papers or involvement in the development of industry guidelines; providing expert input to media offerings; serving as an expert resource for written, broadcast, or internet media. Such activities may also include local, national, or international community outreach.
- Successful proposals for external support of research activity as needed to support a strong scholarship program.
- Demonstration by Assistant Professors that they have moved well past the research of their terminal degree and are successful at establishing new and productive lines of inquiry, with a trajectory that indicates a career of sustainable and impactful scholarship
- Development of special facilities to support research activities for multiple faculty members and student researchers at Mines.
- Invitations to give talks at regional, national or international meetings, or at other universities/research centers.
- Invention disclosures, patent applications, and patent awards.
- Creation of new commercial entities or organizations that will incubate, develop, and deploy technologies resulting from research or transfer results from research into existing commercial entities.
- Meaningful contributions to science and technology policy or societal debate, development, and deployment. Examples might include testifying as an expert in front of state or national legislatures or international governing bodies, writing white papers supporting the development and implementation of appropriate policies or community engagement strategies.
- In certain fields, such as the arts, humanities, and social sciences, distinguished creation should receive consideration appropriate for these disciplines. In evaluating creativity, an attempt should be made to define the candidate's merit in the light of such criteria as originality, scope, richness, and depth of creative expression, as per accepted standards in those fields.

Professional service contributions typical of those promoted to Associate Professor with tenure that enhance the faculty member's visibility and the visibility of Mines may include:

- Manuscript reviews for scholarly archival journals or peer-reviewed conference proceedings,
- Reviewing for professional organizations, funding agencies, or national labs,
- Member of University, portfolio, Departmental, or Program Committees,
- Organizer of sessions at national or international professional meetings,
- Member of a subcommittee in a national or international professional organization,

- Service designed to enhance public knowledge and familiarity with diffusion of technology,
- Service on national advisory boards and committees,
- Service to the University through shared-resource acquisition and development or development of research or teaching infrastructure,
- Involvement in activities that enhance the student experience,
- Undergraduate student advising,
- Graduate academic advising (e.g., advising non-thesis graduate students),
- Organization, submission, and acquisition of training grants to support education activities,
- A history of professional and respectful interactions with other faculty members, students, and staff, within Mines, including collaboration and constructive cooperation in teaching, scholarship, and service, without hostile, demeaning, aggressive, disrespectful, or exploitative interactions with faculty members, staff, or students.

B. Advancement from Associate Professor or Professor without Tenure to Professor with Tenure

Those receiving favorable recommendations will have achieved national and international recognition, including evidence of significant leadership in their field(s). The successful applicant will demonstrate detailed evidence for potential of continued scholarly excellence and leadership, and in addition should promote the vision and goals of their Department and/or Programs and Mines, internally and externally.

Candidates should demonstrate sustained performance for all expectations listed in Section II.A. In addition, candidates should demonstrate the following:

- Significant leadership in the candidate's field(s) that enhances the faculty member's visibility and the visibility of Mines. The leadership may be associated with teaching, scholarship, and/or organizations that promote either education or research.
- National and international recognition and reputation.
- Success with mentoring and completion of graduate students at the PhD, MS-thesis, and MS-non-thesis levels, where those graduate programs exist.
- Institutional service, including leadership roles, to the Department and/or Programs and Mines.
- Demonstrated mentoring and other activities that help Mines' colleagues achieve promotion and/or tenure. This could be within the department or in other programs at Mines, as appropriate.

More details on possible paths to success are outlined below.

Consistent with Mines' "excellence" and "impact" goals discussed above, the success and impact of graduate student mentoring, scholarship, and service are judged relative to norms for faculty members at the rank of tenured full professor at comparable programs at peer and aspirational peer universities.

External validation of national and international recognition and reputation are important.

Examples of successful teaching for those promoted to Professor with tenure may include:

- Dedicated, high-quality student instruction at both the undergraduate and graduate levels as demonstrated by the following: student evaluations, peer evaluations/observations, a teaching portfolio that includes examples of teaching methods and/or effectiveness, teaching statements, and teaching awards. In general, it is expected that all faculty members participate in the teaching mission of the Department/Program, portfolio, and Mines by teaching courses that are required by degree programs, and teach and teach well at both the undergraduate and graduate levels.
- Designing or leading of classroom activities that enhance the educational experience or that are important to the teaching mission, including leading undergraduate and graduate independent studies, advising senior design teams, teaching field session, etc.
- Development and implementation of highly effective or innovative teaching methods and incorporation of feedback from formalized assessments, where appropriate.
- Development of teaching infrastructure.
- Developing new courses or creating enhancements to existing course structures.
- Demonstration of successful out-of-classroom activities that enhance learning or the student experience, including relevant publications, participation in workshops and development activities to improve as an instructor.
- Demonstrating effectiveness in creating an academic environment that is open, supportive, and encouraging to all students, including development of particularly effective strategies for the educational advancement of students in various underrepresented groups.
- Completion of graduate students that includes graduation of PhD students (depending on norms for the discipline at peer and aspirational peer institutions). Evaluators may also consider the post-graduate placement and career success of graduated students as indicators of successful graduate student mentoring. Significant mentoring, supervision, or participation in thesis or non-thesis master's programs may also be relevant.
- Textbooks, reports, circulars, and similar publications normally are considered evidence of teaching ability or public service. However, contributions by faculty members to the professional literature or to the advancement of professional practice or professional education, including contributions to the advancement of equitable access and diversity in education, should be judged creative work when they present new ideas or original scholarly research.
- Exhibiting the ability to acknowledge problems encountered when teaching and to make appropriate adjustments with the goal of continuous improvement.

Examples of activities that demonstrate impactful and sustained scholarship (which may include entrepreneurial outcomes) for those promoted to Professor with tenure may include:

- Peer-reviewed archival publications, including journal articles, book chapters and monographs, and peer-reviewed conference presentations/publications. Candidates should provide supporting evidence (for example, press coverage, journal acceptance rates) that will yield insight into the quality and impact of any work reported.
- Documented use of the output from the candidate's research and entrepreneurial activities by others for their research and entrepreneurial activities, where examples might include working with industry, governments or municipalities to enhance operations via diffusion of technology into practice; providing expert input to media

offerings; serving as an expert resource for written, broadcast, or internet media. Such activities may also include local, national, or international community outreach.

- Successful proposals for external support of research activity as needed to support a strong scholarship program.
- Development of special facilities to support research activities for multiple faculty members and student researchers at Mines.
- National and international awards for research activity.
- Invitations to give talks at regional, national or international meetings, or at other universities/research centers. International reputation is particularly important for promotion to Professor.
- Invention disclosures, patent applications, and patent awards.
- Creation of new commercial entities or organizations that will incubate, develop, and deploy technologies resulting from research or transfer results from research into existing commercial entities.
- Meaningful contributions to science and technology policy or societal debate, development, and deployment. Examples might include testifying as an expert in front of state or national legislatures or international governing bodies, writing white papers supporting the development and implementation of appropriate policies or community engagement strategies; and participating in National Academy of Engineering, National Academy of Sciences, or National Research Council committees and panels.
- In certain fields, such as the arts, humanities, and social sciences, distinguished creation should receive consideration appropriate for these disciplines. In evaluating creativity, an attempt should be made to define the candidate's merit in the light of such criteria as originality, scope, richness, and depth of creative expression, as per accepted standards in those fields.

Professional service contributions typical of those promoted to Professor with tenure that enhance the faculty member's visibility and the visibility of Mines may include:

- Chair of a University, portfolio, Departmental, or Program committee,
- History of service on University, portfolio, Departmental or Program committees,
- Successful mentoring of untenured faculty members,
- Involvement in activities that enhance the student experience,
- Undergraduate student advising,
- Graduate academic advising (e.g., advising non-thesis graduate students),
- Editor or associate editor of a scholarly archival journal,
- Organizer of national or international professional meetings,
- Officer, or other substantive leadership position, in national or international professional organizations,
- Writing letters for promotion and tenure of colleagues,
- Service designed to enhance public knowledge and familiarity with/diffusion of technology,
- Service on national advisory boards and committees,
- Service to the university through shared-resource acquisition and development or development of research or teaching infrastructure,
- Organization, submission, and acquisition of training grants to support education activities,
- A history of professional and respectful interactions with other faculty members, students, and staff, within Mines, including collaboration and constructive cooperation in teaching, scholarship, and service, without hostile, demeaning, aggressive, disrespectful, or exploitative interactions with faculty members, staff, or students.

III. Guidance for evaluators on implementation of the criteria

GENERAL

- Each committee and individual involved in the review process shall judge the candidate with respect to the criteria outlined in this document, evaluating whether the candidate is engaging in a program of work that is both sound and productive.
- External reference letters should be given significant weight because often the best information on the candidate's level of performance relative to the norms of their discipline at peer and aspirational peer universities and programs is discerned from the external letters.
- Evaluation of a faculty member's performance in teaching, scholarship, and service should be commensurate with their approved "distribution of effort agreement" as per section 7.1.1.A.2 in the Faculty Handbook. Reviewers shall exercise reasonable flexibility, balancing when the case requires, heavier commitment and responsibilities in one area against lighter commitments and responsibilities in another. However, outstanding performance in one area will not automatically compensate for a weak performance in another area.
- The criteria listed in this document will also guide the determination of the appropriate academic status for individuals joining the faculty above the rank of Assistant Professor.
- The examples listed in section II above are meant to be illustrative of items that candidates may document in a promotion dossier, and candidates are not expected to provide evidence of all the items listed as "examples" above.

SCHOLARSHIP

- Consistent with Mines' "excellence" and "impact" goals discussed above, successful applicants will have accomplishments and sustained excellence and impact in scholarship and entrepreneurial activities (when relevant) to be recommended for promotion and/or tenure. The success and impact of graduate student mentoring, scholarship, and service should be judged relative to norms at comparable programs at peer and aspirational peer universities. Candidates shall be evaluated with respect to applicable criteria in their fields and departments (or other loci of appointment). Such factors as graduating PhD or MS students, co-authorship with graduate students, the raising of research dollars, and the relative importance of certain research outputs such as conference papers and academic journals are field-dependent and should also be evaluated with respect to the standards and practices of the candidate's field(s). Accordingly, reviewers should recognize that metrics of performance are not the same in all disciplines, that many faculty members contribute to interdisciplinary programs, and that faculty members from several different disciplines may be employed within a single department.
- In evaluating the various activities and outcomes, quantity alone cannot be the deciding factor. The quality, significance, and impact of each contribution must be considered, ideally within the framework of the norms at peer and aspirational peer universities and programs. Evaluators must be confident and conscientious enough so that routine activity is not mistaken for serious accomplishment.

- Quality research may happen without associated research dollars; bringing in research dollars alone, without output, is likely not a sufficient measure of impact. Conversely, research dollars should be valued to the extent needed to fund a vibrant and impactful research program. The university recognizes the value of scholarship that is documented as having a high impact, even if it does not require extensive monetary support.

TEACHING

- Student success is highly valued at Mines. Applicants with poor to mediocre teaching and mentoring records should not be recommended for promotion and/or tenure. Faculty are expected to teach well at both undergraduate and graduate levels.

SERVICE

- The faculty plays an important role in the administration of the University and in the formulation of its policies. Recognition should therefore be given to candidates who prove themselves to be able administrators and who participate effectively and imaginatively in faculty government and the formulation of departmental, portfolio, and University policies.
- Professional service is required and necessary for building reputations. Involvement by all faculty members in professional service activities is expected and required, although pre-tenure faculty should work closely with their Department Head to take on an appropriate amount of service. The significance and impact of service activities is assessed by evaluators, and the expectations are very different for applicants for promotion and/or tenure to Associate Professor and for promotion to Professor, as described above. Citizenship activities that are unrelated to professional roles in the University (e.g., coaching a school soccer team) while laudable, do not constitute evidence for P&T.

INTERDISCIPLINARITY

- It is recognized that some faculty members may cross disciplinary boundaries in their research and/or teaching, and such innovation is valued at Mines. Evaluators should consider interdisciplinary work with respect to the standards in those disciplinary fields holistically.
- Research may involve multiple collaborators having different roles from a range of disciplines, and that some faculty members' research programs may be highly collaborative. Development of collaborative and/or interdisciplinary programs at Mines is encouraged and valued, and reviewers should consider these activities to be a positive attribute in evaluating applications for promotion and/or tenure. Faculty members may contribute to multi-investigator efforts in both lead and supportive roles, but in all cases the contributions should be significant and lead to research pursuits that would not be possible without their involvement. Successful faculty members will generally have records that reflect both lead and supporting roles in their research activities.
- Development of, and contribution to, interdisciplinary educational programs and courses is highly valued at Mines.

DIVERSITY AND INCLUSION

- Contributions that promote diversity and equal opportunity are to be encouraged and given recognition in the evaluation of the candidate's qualifications. These contributions can take a variety of forms including efforts to advance equitable access to education, public service that addresses the needs of diverse populations, or research in a scholar's area of expertise that highlights inequalities.

STANDARDS OF CONDUCT

- Professional and ethical behavior is also highly valued at Mines. There is an overarching University expectation that faculty and staff members exhibit the highest standards of personal integrity and professional responsibility as articulated in Section 6.2 of the Faculty Handbook. Applicants with evidence of hostile, demeaning, aggressive, disrespectful, or exploitive interactions with faculty members, staff, or students shall not be recommended for promotion and/or tenure.

TIMING

- The expectations for candidates who have stopped their clock pre-tenure should be the same as those for candidates on the standard timeline. The additional time in rank due to the stopped clock should not result in higher expectations.
- In evaluating applications for promotion and/or "early" tenure, candidates shall be evaluated solely on the strength of their records in meeting the criteria outlined above, not on time-served. Length of service at Mines or elsewhere is not a specific consideration, and candidates seeking early tenure and/or promotion shall be held to neither a higher nor a lower standard than those of other candidates.

AWARDING OF TENURE

- The awarding of tenure amounts to an institutional investment in the faculty member's long-term contribution to the scholarly and educational mission of the university. It is not merely a "reward" for doing what is expected; it is an investment in the future. Evaluators should review applications with this in mind and be satisfied that sufficient evidence of a continuing and maturing satisfaction of the various criteria is present in all cases.

PROMOTION TO PROFESSOR

- Every Professor at Mines is expected to be a University leader, contributing in a major way to the mission of the Department, portfolio, and the University. Excellent performance and impactful activities in most of the major sectors of activity (teaching, scholarship, service, engagement) is expected. It is not enough to be successful at a level of productivity that was sufficient for promotion to Associate Professor for another five years of activity. There is an expectation of some qualitative difference in the scope and level of contributions for the promotion to Professor. For example, in the instructional arena, the types of activity that would be convincing of university leadership would include: teaching a broader range of classes, designing new courses, or participating substantially in curriculum development; and mentoring of PhD students to graduation. In research, one might expect: undertaking longer-range projects; the establishment of a substantial body of work that cements an expert's reputation; having multiple streams of inquiry in play; invitations to give keynote or other special presentations at conferences or universities, with national and international scope; leading interdisciplinary teams on more complex projects; collaborations with an expanding circle of colleagues, both at Mines and externally. Service contributions could include: chairing committees at the departmental and university levels; serving on national review panels; membership on editorial boards of quality journals; exhibiting intellectual leadership that advances the institution beyond the goals of a faculty member's department and beyond the accolades of their own career; and leadership in professional societies.

Last Revision:

August 2, 2022