Role and Scope Document
for
Norm Asbjornson College of Engineering

Approved by the Faculty of the College on April 12, 2019

Article I.   Role and Scope of Unit

The Role and Scope of the institution devolves from the mission:

"Montana State University, the State's land-grant institution, educates students, creates knowledge and art, and serves communities, by integrating learning, discovery, and engagement."

Montana State University-Bozeman is committed to undergraduate and graduate education, research, and professional and public service and outreach to the state, region, nation, and world.

The faculty, staff, and administrators in the College of Engineering are dedicated to this mission and produce substantial benefits for society, including advances in fundamental and applied knowledge, technological innovation, improved health and well-being, and a broadly educated citizenry.

In 2019, the College is made up of the following departments and school, offering the indicated degree programs:

Chemical and Biological Engineering Department
        Bachelor of Science in Chemical Engineering
        Bachelor of Science in Biological Engineering
        Master of Science in Chemical Engineering
        Master of Science in Environmental Engineering
        Master of Engineering in Bioengineering
        Master of Engineering in Chemical Engineering
        Doctor of Philosophy in Chemical Engineering

Civil Engineering Department
        Bachelor of Science in Civil Engineering
        Bachelor of Science in Environmental Engineering
        Bachelor of Science in Civil Engineering, Bio-Resources Option
        Bachelor of Science in Construction Engineering Technology
        Master of Science in Civil Engineering
        Master of Science in Environmental Engineering

Electrical and Computer Engineering Department
        Bachelor of Science in Computer Engineering
        Bachelor of Science in Electrical Engineering
        Master of Science in Electrical Engineering
        Master of Science in Optics and Photonics
        Master of Engineering in Electrical Engineering

Doctor of Philosophy in Electrical Engineering

Gianforte School of Computing
Bachelor of Science in Computer Science
Bachelor of Arts in Computer Science
Master of Science in Computer Science
Doctor of Philosophy in Computer Science

Mechanical & Industrial Engineering Department
Bachelor of Science in Financial Engineering
Bachelor of Science in Industrial & Management Systems Engineering
Bachelor of Science in Mechanical Engineering
Bachelor of Science in Mechanical Engineering Technology
Master of Science in Industrial & Management Engineering
Master of Science in Mechanical Engineering
Master of Engineering in Mechanical Engineering

Doctor of Philosophy in Engineering
The College of Engineering offers a college-wide Doctor of Philosophy in Engineering degree program. This degree has seven options:
Applied Mechanics
Chemical Engineering
Civil Engineering
Environmental Engineering
Industrial Engineering
Mechanical Engineering

The College is also home to numerous research centers and institutes, including the Center for Biofilm Engineering, Energy Research Institute, Montana Engineering Education Research Center, Thermal Biology Institute, Montana Manufacturing Extension Center, Optical Technology Center and the Western Transportation Institute.

All of the departments and school use the role and scope of the College of Engineering (COE) in lieu of specific role and scope documents for each unit. Faculty performance is reviewed at the unit and college level following the procedures and standards set forth in this document, applied in the context of the faculty member's specific discipline, program affiliation and assignment.
In this regard, faculty primarily affiliated with the two technology programs in the College, i.e., the Construction Engineering Technology and the Mechanical Engineering Technology programs, are distinct, in that a) these curricula do not have associated graduate degree programs, and b) these faculty members often were brought to MSU due to the depth of their professional practice experience rather than their research experience/potential. Thus, these faculty members may have limited involvement in graduate education and basic research, being more directed toward maintaining strong applied academic programs closely connected to, and intensively interacting with, their respective industries. Terminal degrees for tenure track (TT) faculty supporting programs with graduate programs are at the doctorate level in an appropriate field. Terminal degrees for TT faculty supporting one of the technology programs are at the Masters level from an appropriate related field.

Article II.   Appointment and Advancement of Research Faculty

Section 2.01   Appointment

Research faculty members are appointed by the Department Head or School Director.

Section 2.02   Advancement

Research faculty members use the same criteria and standards for promotion as Tenure Track (TT) faculty and follow nearly the same procedures, with the exceptions noted below.

Exceptions:

- The candidate's dossier contains only materials relevant to research.
- External reviews are not required.
- There are three levels of review:
  - Primary Review Committee
  - Department Head or School Director
  - Dean

The Dean will notify the candidate of the final decision.

When the research faculty member has a significant commitment in a second department, or a research center or institute, the department head or school director of the non-home department should provide a written evaluation of the candidate's research performance for inclusion in the candidate's dossier.

Section 2.03   Promotion to Associate Research Professor: Criteria and Standards

The criteria and standards for promotion to Associate Research Professor are the same as those used for a TT faculty member, except the only area of responsibility is research.

The criteria for promotion to Associate Research Professor is: Accomplishment in research.

The candidate for promotion to Associate Research Professor must demonstrate accomplishment in research. In general, it is expected that the candidate will demonstrate that he or she has built a foundation for a research effort that will significantly contribute to his or her discipline.

The following items are commonly used to demonstrate accomplishment. The lists are not intended to be exhaustive.

Items required by all candidates:

- **Curriculum Vitae**, including a list of research funding and a list of research products (e.g., reports, conference presentations, refereed journal articles, conference articles) with a description of the candidate's role in collaborative products (see Section 6.02).
- **Research Statement**, including the candidate's evaluation of research accomplishments.

Additional items that could be included to demonstrate accomplishment:

- List of graduate and undergraduate students mentored
- List of proposals submitted
- Invited papers and presentations
- Professional assignments with technical committees, technical editing
- Awards, honors, or similar recognition for research

Section 2.04   Promotion to Research Professor: Criteria and Standards

The criteria and standards for promotion to Research Professor are the same as those used for a TT faculty member, except the only area of responsibility is research.

The criteria for promotion to Research Professor is: Excellence in research.

The following items are commonly used to demonstrate excellence in research. The lists are not intended to be exhaustive.

Items required by all candidates:

- Curriculum Vitae, including a list of research funding and a list of research products (e.g., reports, conference presentations, refereed journal articles, conference articles) with a description of the candidate's role in collaborative products (see Section 6.02).
- Research Statement, including the candidate's evaluation of research accomplishments.

Additional items that could be included to demonstrate excellence:

- List of graduate and undergraduate students mentored
- List of proposals submitted
- Invited papers and presentations
- Professional assignments with technical committees, technical editing
- Awards, honors, or similar recognition for research

Article III.   Annual Review Process

All faculty members will be reviewed annually. Annual review assesses the faculty member's performance over the preceding calendar year ("summative assessment") with the major aim of improvement ("formative") and is based on the faculty member's workload distribution, annual assignment, self-assessment, and review of the individual's performance.

Section 3.01   Annual Review Requirements

Annual review procedures include the following elements:
- All faculty members will provide data on their activities over the preceding year. This data must be submitted no later than the end of January following the review year. (The data is currently submitted through Activity Insight.)
- Annual reviews will cover the faculty member's activities and accomplishments in the preceding calendar year.
- All areas of the faculty member's responsibility must be reviewed.

- Annual reviews should be completed by the end of March.
- Annual review documents must be communicated to the Dean by March 31 unless an extension is approved by the Dean.
- Annual review documents are retained as part of the faculty member's personnel file.

Section 3.02   Annual Review Feedback

Each department head or school director will provide summative and formative feedback to the faculty member as part of the review process and will assign an annual review score. These scores are reported to the Dean by the end of March each year.

Article IV.   Primary Review Committee and Administrator

Section 4.01   Primary Review Committee-Composition and Appointment

Each department or school will have a committee, referred to herein as the Primary Review Committee, to review the dossier submitted by each candidate for retention, tenure, and/or promotion. The committee shall conduct a fair, objective, independent, and substantive review of the candidate's dossier based on department, college, and university criteria and standards. Based on this review, the committee will formulate its recommendation for retention, tenure, and/or promotion.

The Primary Review Committee is the unit (department or school) Promotion and Tenure (P&T) committee. The departmental P&T committee shall consist of a minimum of three members and a maximum of five. The size of the departmental committee can change depending upon the size of the department and the number of eligible faculty. Only tenured faculty members are eligible to serve on the Primary Review Committee. At least one-half of the members will have attained the rank of professor. The department head or school director may request approval from the University Retention, Tenure, and Promotion Committee (URTPC) Chair to make an appointment from outside the department's tenured faculty. Emeritus faculty members are not eligible to serve.

At least two-thirds of the membership shall be elected from the faculty and the Department Head or School Director may appoint up to one-third of the membership. Elected members will serve three-year terms, and appointed members will serve a one-year term.

A conflict of interest may exist when a faculty member has a financial or personal interest in the outcome of a review. Faculty with possible conflicts of interest must identify any possible conflict to their department head or school director, disclose possible conflicts of interest in the review letter, and they may be ineligible for service in cases of a significant conflict of interest.

Before conducting a review, committee members will attend the orientation regarding retention, tenure, and promotion offered by the Provost's office for the review cycle. Committee members

and administrative reviewers will also attend training sessions that promote bias-literacy in retention, tenure, and promotion reviews before conducting reviews.

Committees will be available for service throughout the academic year. Faculty on leave are ineligible for service.

Section 4.02   Primary Review Administrator
The primary review administrator is the Department Head or School Director. The primary review administrator shall determine, to the best of their ability, whether the candidate's preceding review was conducted in substantial compliance with the procedures set forth by the unit, college, university and this document. The primary review administrator shall also conduct an independent and substantive review of the candidate's dossier and make recommendations regarding retention, tenure, and/or promotion. The recommendation shall include a written rationale for the recommendation.

Section 4.03   Identification of Responsible Entities
(a) Establish the Primary Review Committee either by facilitating the election or appointment of the members as described.

Primary Review Administrator

(b) Select external reviewers and solicit review letters.

Primary Review Administrator with input from the Primary Review Committee

(c) If internal Reviews are part of the unit's review process, selecting and soliciting Internal Reviews.

Primary Review Administrator with input from the Primary Review Committee

(d) Assuring the following materials are included in the Dossier:
> (i) Internal and external reviewer letters of solicitation, letters from the reviewers and, in the case of external reviewers, a short bio-sketch of the reviewer.

> Primary Review Administrator

> (ii) Applicable Role and Scope Document.

> Primary Review Administrator

(iii) Letter of Hire, any Percentages of Effort changes, all annual reviews, and all Evaluation Letters from prior retention, tenure, and promotion reviews at MSU.

Primary Review Administrator

(iv) Candidate's teaching evaluations from the review period. If the evaluations are not in electronic format, the unit will provide evaluation summaries. Upon request by review committees and review administrators, the unit will provide access to the original evaluations to review committees and administrators during the review.

Primary Review Administrator

(e)   Maintaining copies of all review committee Evaluation Letters and internal (if applicable) and external review letters after the review.

Primary Review Administrator

Section 4.04   Next Review Level
Following the Primary Review Committee and the Department Head or School Director, the next review level is the College of Engineering P&T committee followed by the Dean.

Article V.   Intermediate Review Committee and Administrator

Section 5.01   Intermediate Review Committee - Composition and Appointment
The college shall have an intermediate review committee to consider the dossier submitted by each candidate and formulate its recommendation for retention, tenure, and/or promotion. The committee shall determine, to the best of its ability, whether a candidate's preceding reviews have been conducted in substantial compliance with the procedures set forth by the unit, college, university and this document. The committee shall also conduct a fair, objective, independent, and substantive review of the candidate's dossiers based on department, college, and University criteria and standards.

The COE P&T committee shall consist of a minimum of five members. At least twenty-five percent (25%) of the members must be female faculty and at least twenty-five percent (25%) must be male faculty. Only tenured faculty members are eligible to serve on the COE P&T review committee. At least one-half of the members will have attained the rank of professor unless approval from the Chair of URTPC is given. Primary Review Committee members and administrators are not eligible to serve on the intermediate review committee. Emeritus faculty members and faculty on leave are not eligible to serve.

All Associate and Full Professors in the college are invited to put their names forward for the college-wide election. Department heads or school directors are responsible for ensuring, whenever possible, that at least one eligible individual from each department or school is nominated for the election if the department or school does not currently have an elected member on the committee. For each department or school that does not currently have an elected member on the committee, the top vote recipient from the department or school is an elected member of the committee. The Dean may appoint additional members to the committee. The Dean's appointments should be made with consideration of diversity of disciplines and gender, and the total number of appointments by the Dean may not exceed one-third of the committee membership. Elected members shall serve three-year terms, and appointed members shall serve a one-year term.   Committee members from the same department as the faculty member being reviewed may be present at committee meetings and provide discipline-related information to the other reviewers but must abstain from voting.

Before conducting a review, committee members will attend the orientation regarding retention, tenure, and promotion offered by the Provost's office for the review cycle. Committee members will also attend training sessions that promote bias-literacy in retention, tenure, and promotion reviews before conducting reviews.

Section 5.02   Intermediate Review Administrator
The intermediate review administrator is the Dean of the College of Engineering. The Dean shall determine, to the best of their ability, whether the candidate's preceding review was conducted in substantial compliance with the procedures set forth by the unit, college, university and this document. The Dean shall also conduct an independent and substantive review of the candidate's dossier and make recommendations regarding retention, tenure, and/or promotion. The recommendation shall include a written rationale for the recommendation, especially in the case of non-concurrence with any of the prior levels of review.

Section 5.03   Level of Review following Intermediate Review Administrator
The next level of review after the Intermediate Review Administrator is the URPTC. One member of URPTC is appointed from the NACOE. This member is elected by the TT faculty of the NACOE for a three-year term.

Article VI.   Review Materials

Section 6.01   Materials submitted by Candidate
For all cases, the following materials must be included in the Dossier provided by the candidate for review.
1. The "Cover Sheet", obtained from the Provost's office.
2. The **Assignment and Performance** section of the dossier should include the Letter of Hire, Annual Evaluations since the previous review, and review letters from the most recent review.

3. A comprehensive **Curriculum Vitae** (CV) with teaching, scholarship, and service activities of the candidate.
4. A **Personal Statement** that identifies and describes the candidate's area of Scholarship. This statement may also include the candidate's own assessment of their scholarship and their vision for their work in this area.
5. The **Teaching Section** of the dossier should contain: a teaching statement and self-evaluation of the individual's activities in the teaching area over the relevant review period, a list of courses taught during the review period, a summary of student evaluations, the syllabus and sample course materials (e.g., homework assignments, exams, and/or project assignments) from at least two courses taught during the review period, and a brief description of advising activities (candidates may include other material to help reviewers assess advising activities). Optional teaching materials include peer observations of teaching, evidence of instructional innovation, student work samples, student letters, and awards.
6. The **Scholarship Section** of the dossier should include: a scholarship statement and self-evaluation of the individual's scholarship activities, a summary of funding and proposal writing, a list of individuals (at any level) that were mentored, complete listing of scholarship products including publications and presentations, and any awards or honors. Dossiers in the NACOE typically include five selected examples of scholarly products.
7. The **Service Section** of the dossier should include: a brief self-evaluation of the individual's service activities; lists and brief descriptions of service activities at the department, college, and/or university level; discipline related community/public service activities; and professional service activities such as conference organization activities, peer-review, and proposal review.
8. The **Integration Section** should contain a self-evaluation (or 'statement') summarizing the evidence demonstrating that the candidate meets the standards for the attainment of retention, tenure, or promotion, as applicable in the integration of two areas from teaching, scholarship, and service.

In the cases of promotion or tenure review (retention cases are exempt), the following materials must be provided to the primary review administrator prior to the full dossier and by the date specified by the primary review administrator for external reviews.
1. A comprehensive Curriculum Vitae (CV)
2. The scholarship statement
3. Selected examples of scholarly products

Typically, these materials are the same materials that the candidate includes in the dossier, but they may be updated prior to final dossier submission.

Section 6.02   Documentation of Collaborative Scholarly Contributions

Although collaborating on scholarly activities is highly encouraged and anticipated, candidates are expected to establish independent lines of scholarship. For that reason, if the candidate is working on collaborative activities, they should describe their own scholarly contribution to the work so

that it is clear to the review committees the accomplishments of the candidate. The autonomous role played by the candidate in collaborative scholarly work and its associated products should be described whenever it is unclear or ambiguous.

Examples for documenting contributions:
"Equal contribution by the first and second authors of the manuscript."
"The candidate designed the study and supervised the graduate student conducting the research."
"The candidate was responsible for the mathematical modeling work in the proposal and supervising one of the two graduate students funded by the grant."
"The candidate supported the experimental work through the design and construction of a new high pressure vessel."

Section 6.03   Peer Review Solicitation Procedure

External and/or Internal peer reviews, and student reviews, can be an important part of the assessment of the performance of a candidate for retention, tenure and/or promotion.

External reviews from at least four (4) respected authorities, appropriate to the candidate's area of Scholarship, who will provide an independent and objective evaluation of the candidate's Scholarship are required for tenure and promotion reviews. The primary review administrator shall invite recommendations from the candidate, but at least one half of the external reviewers should be persons other than the reviewers recommended by the candidate, unless they were previously and independently identified by the primary review administrator or committee. The external reviewers should be provided: the candidate's Curriculum Vitae (CV), scholarship statement, selected examples of scholarly products, and this Role and Scope document.

Note, student reviews of teaching outside of the University course evaluation process are recommended and may be solicited by the primary review administrator. The reviews are solicited at the unit or program level by the primary review administrator in a consistent manner for all candidates for that unit. The reviewers should be students that have taken one or more courses from the candidate.

Internal reviews of scholarship are optional, but may be helpful for faculty that collaborate with other scholars at Montana State University that are outside the candidate's department. The primary review administrator should invite recommendations from the candidate for internal reviews of scholarship. If internal reviews of scholarship are requested, the candidate's CV and scholarship statement should be provided to the internal reviewers.

Finally, the primary review administrator may invite internal reviews of the candidate from the faculty in the candidate's home department for tenure and promotion reviews. The candidate's CV should be provided to the faculty to assist in writing an internal review. Faculty that are on the primary or secondary review committees cannot provide an internal review.

Article VII.   Applicable Role and Scope Documents

Section 7.01   Retention Review – Candidates for retention are reviewed under the standards and indicators in the Role and Scope Documents in effect on the first day of employment in a tenurable position.

Section 7.02   Tenure and Promotion to Associate Professor Review – Candidates for tenure are reviewed under the standards and indicators in the Role and Scope Documents in effect on the first day of employment in a tenurable position. Candidates may select a more recent, approved Role and Scope Document by notifying the Primary Review Committee.

Section 7.03   Promotion to Professor Review – Candidates will be reviewed using standards and indicators in the Role and Scope Documents in effect two (2) years prior to the deadline for notification of intent to apply for promotion.

Article VIII.   Retention Reviews

Section 8.01   **Timing of Retention Review**. Faculty are reviewed for retention in the academic year specified in their Letter of Hire, unless extended under the Extending Tenure Review Period policy.

Section 8.02   **University Standard.** The standards for the retention of probationary faculty members are:
(a) effectiveness in teaching, scholarship, and service during the review period, and
(b) integration of no less than two of the following during the review period: teaching, scholarship, and service, and
(c) satisfactory progress towards meeting the standards for tenure by the candidate's tenure review year.

Section 8.03   **Performance Indicators and Weighting**
Retention candidates must demonstrate sustained effectiveness in each area of assignment during the review period, integration of effort across their areas of assignment, and satisfactory progress towards meeting the standards for tenure. External reviews are not included as part of a retention review. When reviewing a candidate's performance, the areas of assignment should be reviewed consistent with the faculty member's workload distribution.

Performance indicators and weighting are defined in Section 9.03. The same indicators and weights that are used in tenure review are used in retention review. Faculty in technology programs typically may have increased teaching responsibilities, and their scholarly work may be

more directed toward innovative instructional methods and curriculum content, industry engagement, and applied industry-based research.

Section 8.04   Quantitative and Qualitative Expectations

Effectiveness in teaching is described in Section 9.04. Tenure track faculty in the College of Engineering are expected to teach a number of courses consistent with their percent effort in teaching.

Effectiveness in scholarship is judged primarily by the quality of published scholarly works, with refereed articles being the most common performance indicator. TT faculty are expected to publish scholarly work regularly. By retention, scholarly products may be submitted, accepted, in press, or published at the time of review. The record must be substantive enough that it is reasonable to expect the candidate to achieve the standards for tenure at the time of tenure review.

Collaborative work is highly valued, and there is no expectation that single-authored publications are required to demonstrate effectiveness in scholarship. Standards for determining author order vary within and across groups, so no inferences about level of contribution should be made based on author order. The candidate is expected to identify the level of individual contribution to scholarly works whenever it is unclear or ambiguous (see Section 6.02).

By retention, TT faculty are typically leading research projects that include undergraduate and/or graduate students.   TT faculty are expected to pursue external funding for their scholarly work. By retention, TT faculty will have typically submitted grant proposals. TT faculty are expected to serve the university and the profession through their activities. By retention, TT faculty will typically be engaged in at least one service activity at the university.

TT faculty in technology programs may have limited involvement in graduate education, and fewer opportunities to secure sponsored research (and thus to generate associated research products), but greater expectations on their professional activities, such as participation in program development/assessment and professional development seminars and training, and pursuit of professional licensure and certifications, etc.

Section 8.05   Evidence of Performance Indicators

Evidence of performance indicators are listed in Section 9.05. The same performance indicators and evidence that are used in tenure review are used in retention review, with the addition that submitted products are to be documented with a copy of the submitted work.

Section 8.06 Status of Scholarly Products

Because candidates for retention will be reviewed early in their career, scholarly work that has been submitted but not yet accepted may be included in the dossier and considered as part of the retention review.

Article IX. Tenure Review

Section 9.01 Timing of Tenure Review

Faculty are reviewed for tenure in the academic year specified in their Letter of Hire, unless extended under the Extending Tenure Review Period policy.

Section 9.02 University Standard

The University standards for the award of tenure are:

a) sustained effectiveness in teaching and service during the review period, and

b) integration of no less than two of the following during the review period: teaching, scholarship, and service, and

c) accomplishment in scholarship.

Section 9.03 Performance Indicators and Weighting

Tenure candidates must demonstrate sustained effectiveness in teaching and service during the review period, some degree of integration of effort across their areas of responsibility per Faculty Handbook definitions, and accomplishment in scholarship. Note that **accomplishment** is defined in the Faculty Handbook as sustained and commendable performance reflected in the quantity, quality, and impact of scholarly activities and products. These activities and products include peer reviewed publications, formal peer-reviewed presentations, or comparable peer-evaluated works appropriate to the discipline. The activities and products must have impact and significance to the public, peers, or the discipline beyond the university. When reviewing a candidate's performance, the areas of assignment should be considered consistent with the faculty member's workload distribution.

The indicators listed below are examples of activities that can demonstrate sustained effectiveness or accomplishment (as indicated below).

Teaching Indicators (sustained effectiveness):
- Organizes and delivers well managed courses
- Fosters student learning (undergraduate and graduate students)
- Guides student academic progress (advising)
- Implements innovative curricular components (instructional materials, new courses, revisions to existing courses)
- Implements new laboratory experiments and equipment

Scholarship Indicators (accomplishment):
- Refereed journal articles, monographs, book chapters, and textbooks
- Refereed proceedings published in connection with professional meetings
- External grants funded
- Invited talks, seminars or colloquia (e.g., plenary or keynote)

- Papers, posters, or presentations given at professional meetings
- Grant proposals submitted (external and internal)
- Non-refereed publications (e.g., non-refereed proceedings and technical reports)
- Development of intellectual property
- Development and dissemination of other scholarly products (e.g., software or curriculum materials)
- Delivery of workshops
- Development of new laboratory procedures
- Development of research projects with industrial partners
- Awards or recognition for scholarly work

Greater weight is given to refereed works (first and second items) and funded external grants (third item), but all scholarship indicators shall be considered. This list is representative but not exhaustive. As additional evidence of performance in scholarship, the candidate may choose to include other relevant and appropriate indicators not listed here. The Primary Review committee will determine the weight of such indicators.

Service Indicators (sustained effectiveness):
- Supports the functioning of the Institution (service at any level to Montana State University)
- Brings discipline related knowledge/discoveries to the public (public service)
- Supports the development of the faculty member's discipline (professional service)

Integration Indicators (sustained effectiveness):
- Public presentations of scholarship (scholarship and service)
- Scholarly career advising (scholarship and teaching)
- Public service related to scholarship (service and scholarship)
- Dual-enrollment instruction at a high school or community college (service and teaching)

Faculty in technology programs typically may have increased teaching responsibilities, and their scholarly work may be more directed toward innovative instructional methods and program development, industry engagement, and applied industry-based research.

Section 9.04 Quantitative and Qualitative Expectations

Effectiveness in teaching is achieved primarily through the candidate's positive contributions to the design, delivery, and instruction of courses and labs. Effectiveness is judged primarily using a review of the sample teaching materials in the dossier and peer reviews conducted by other faculty. Peer reviews may consist of observing the candidate in the classroom or lab, reviewing course materials, and reviewing student course evaluations. Other materials used to assess teaching effectiveness may include a summary of student evaluations of instruction or letters from students solicited by the department head or school director, which assess the effectiveness of the

candidates teaching. Letters assessing the effectiveness of the candidate as a mentor for undergraduate and graduate students may be solicited by the department head or school director.

Accomplishment in scholarship is judged primarily by the quality of published scholarly works, with refereed articles being the most common performance indicator. With respect to publication quality, the reviewers will assess accomplishment based on the evidence provided by External Reviewers. Accomplishment includes, but is not limited to, an ongoing record of independent research that has led to a regular and continuous record of publication in refereed journals. It is expected that the results of these publications will be presented at conferences and professional meetings. A record of seeking extramural funds to support research activities is also expected.

It is expected that scholarship be of high quality, be ongoing throughout the tenure review period, and result in a substantive record of peer-reviewed products at the time of tenure. The typical expectation for scholarly productivity is that the tenure candidate average two or more scholarly products per year during the review period. Publications may be accepted, in press, or published at the time of review. Due to the diverse nature of scholarship within the NACOE, expectations will vary across departments and disciplines. Regardless of quantity of products, the quality of the candidate's scholarly body of work as documented by External Reviewers is of primary importance. In some cases, a smaller number of products with high impact may be acceptable for satisfying scholarship expectations, while in other cases a large number of products may not be sufficient.

Collaborative work is highly valued, and there is no expectation that single-authored publications are required to demonstrate effectiveness in scholarship. Standards for determining author order vary across the disciplines in the College, so no inferences about level of contribution should be made based on author order. The candidate is expected to identify the level of individual contribution to scholarly works whenever it is unclear or ambiguous [see Section 6.02].

Effectiveness in service is evaluated by the quality and quantity of the candidate's service on department, college, and university committees as well as professional service activities. Candidates should typically be engaged in multiple service activities at the university. Participation in other activities that contribute to the candidate's discipline or profession (e.g., task forces or special programs) is also valued, especially when such participation raises the stature and reputation of the University in the state, the nation, or internationally.

Faculty in technology programs may have limited involvement in graduate education, and fewer opportunities to secure sponsored research (and thus to generate associated scholarly products), but greater expectations on their professional activities, such as participation in curriculum development/assessment and professional development seminars and training, and pursuit of professional licensure and certifications, etc. Consistent with the expectation of all College faculty at this level of performance, any such activities and products must have impact and significance to the public, peers, or the discipline beyond the university.

Section 9.05 Evidence of Performance Indicators
The Performance Indicators listed in Section 9.03 are examples of activities that tenure candidates can use to demonstrate sustained effectiveness and accomplishment. Typical evidence that reviewers should consider for tenure candidates is contained in the dossier and listed below. Any additional evidence considered by the reviewers should be clearly stated and justified in the review.

Evidence of performance indicators in scholarship
The list of evidence presented in the table below is not exhaustive. For works published in a journal not readily available through University databases or work accepted for publication but not yet published, the candidate must include a PDF copy of the accepted work in the dossier.

Indicator	Typical Evidence
Refereed journal articles, monographs, book chapters, and textbooks	Full citation of the work. For works not yet published, a PDF copy of the accepted work
Refereed proceedings published in connection with professional meetings	Full citation for the proceedings. For works not yet published, a PDF copy of the accepted work
External grants funded	Grant number, funding agency, title, award amount and duration, collaborators (if any)
Invited talks, seminars or colloquia	Full citation, location, and date
Presentations given at professional meetings	Full citation, location, and date
Grant proposals submitted (external and internal)	Funding agency, title, budget request, collaborators (if any), status (if available)
Non-refereed publications (e.g., non-refereed proceedings and technical reports)	Citation, including title and brief description. For work that is not publicly available, a PDF copy is recommended
Development of intellectual property	Brief description and status
Development and publication of other scholarly products (e.g., software or curriculum materials)	Brief description of the product including an overview of content and format, intended use, potential audience, and location where it is publicly available
Development of new laboratory procedures	Brief description and a PDF copy of the work
Development of research projects with industrial partners	Description of the research project and information for a representative with the industrial partner that can be contacted if there are questions
Awards or recognition for scholarly work	Description of the award including scope and eligibility requirements

Evidence of performance indicators in teaching

The list of evidence presented in the table below is not exhaustive. Other evidence supplied by the candidate that is related to performance indicators for teaching will be considered in the review.

Indicator	Typical Evidence
Organizes and delivers well managed courses	Peer evaluations of teaching, letters from students, and sample course materials including syllabus
Fosters student learning	Samples of student work, course evaluations, letters from students
Fosters graduate student learning	Co-authorship of papers, thesis publication, professional development
Mentorship of graduate students	Brief description of research, including student name, and progress to date
Mentorship of undergraduate students (i.e., supervising undergraduate research or projects)	Brief description of activity, including student name, and progress to date
Guides student academic progress	Description of advising activities
Implements innovative curricular components	Syllabus or other documentation of new methods or materials with evidence supporting innovation. Brief description of the implementation process, audience, and outcomes
Implements new laboratory experiments	Description of new laboratory experiments. Brief description of the implementation process, audience, and outcomes

Evidence of performance indicators in service

The list of evidence in the table below is not exhaustive. Other evidence supplied by the candidate that is related to performance indicators for service will be considered in the review.

Indicator	Typical Evidence
Supports the functioning of the Institution (service at any level to Montana State University)	Description of service activity, including scope and dates of service
Brings discipline related knowledge/discoveries to the public (public service)	Brief description of outreach activities, audience, and outcomes
Supports the development of the faculty member's discipline (professional service)	Name of each organization (with description as needed), offices or roles held, dates of service, and notable accomplishments

Article X. Promotion to Rank of Associate Professor

Section 10.01   University Standards

The University standards for promotion to the rank of Associate Professor are the standards for the award of tenure. Appointment at the rank of Associate Professor or Professor does not demonstrate, in and of itself, that standards for tenure have been met.

Article XI. Promotion to Rank of Professor

Section 11.01   Timing of Review.

Normally, faculty are reviewed for promotion after the completion of five (5) years of service in the current rank, however, faculty may seek promotion earlier if they can establish that they "meet the same standards of effectiveness and accomplishment or excellence used in evaluating candidates after five (5) years in rank."

Section 11.02   University Standard

The University standards for promotion to the rank of Professor are:
(a) sustained effectiveness in teaching and service during the review period, and
(b) sustained integration of no less than two of the following areas during the review period: teaching, scholarship, and service, and
(c) excellence in scholarship.

Section 11.03   Performance Indicators and Weighting

Candidates for promotion to full professor must demonstrate sustained effectiveness in teaching and service during the review period, integration of effort across their areas of assignment, and excellence in scholarship. Note that the Faculty Handbook defines **excellence** as sustained, commendable, and distinguished performance reflected in the quantity, quality, and impact of scholarly activities and products. These activities and products include peer reviewed publications, formal peer-reviewed presentations, or comparable peer-evaluated works appropriate to the discipline. The activities and products must have a notable impact and significance to the public, peers, or the discipline beyond the university. At least four external reviews are required as part of a promotion review dossier. When reviewing a candidate's performance, the areas of assignment should be considered consistent with the faculty member's workload distribution.

The indicators and weighting used for this review are the same as those defined in Section 9.03 of this document. Faculty in technology programs typically may have increased teaching responsibilities, and their scholarly work may be more directed toward innovative instructional methods and curriculum content, industry engagement, and applied industry-based research.

Section 11.04   Quantitative and Qualitative Expectations

Tenure track faculty in the College of Engineering are expected to teach a number courses consistent with their percent effort in teaching. **Effectiveness in teaching** is achieved primarily through the candidate's positive contributions to the design, delivery, and instruction of courses and labs. Effectiveness is judged primarily using a review of the sample teaching materials in the dossier and peer reviews conducted by other faculty. Peer reviews may consist of observing the candidate in the classroom or lab, reviewing course materials, and reviewing student course evaluations. Other materials used to assess teaching effectiveness may include a summary of student evaluations of instruction or letters from students, solicited by the department head or school director, which assess the effectiveness of the candidates teaching. Letters assessing the effectiveness of the candidate as a mentor for undergraduate and graduate students may be solicited by the department head or school director.

Excellence in scholarship is judged primarily by the quality of published scholarly works, with refereed articles being the most common performance indicator. The quality of the scholarship will be assessed using the evidence provided by External Reviewers. Excellence includes, but is not limited to, receiving national or international recognition from peers and colleagues as having made important scholarly contributions to the candidate's discipline. The scholarly results shall be disseminated through publications and presentations. Candidates with a scholarship assignment of 40% or higher will typically average more than two publications per year over the review period.

Regardless of quantity of products, the quality of the candidate's scholarly body of work as documented by External Reviewers is of primary importance. In particular, the quality and reputation of journals and other scholarly venues, as documented by External Reviewers and disciplinary norms, is considered important in the review process. In some cases, a relatively small number of products with high impact may be acceptable for satisfying scholarship expectations, while in other cases a large number of products may not be sufficient. A record of seeking extramural funds to support research activities is also expected. By promotion to Professor, COE faculty with a scholarship assignment of 40% or greater will typically have submitted multiple successful proposals for funding for their scholarly work.

Collaborative work is highly valued, and there is no expectation that single-authored publications are required to demonstrate effectiveness in scholarship. Standards for determining author order vary within and across groups, so no inferences about level of contribution should be made based on author order. The candidate is expected to identify the level of individual contribution to scholarly works whenever it is unclear or ambiguous [see Section 6.02].

Faculty in technology programs may have limited involvement in graduate education, and fewer opportunities to secure sponsored research (and thus to generate associated research products), but greater expectations on their professional activities, such as participation in program development/assessment and professional development seminars and training, and pursuit of professional licensure and certifications, etc. Consistent with the expectation of all College faculty

at this level of performance, any such activities and products must have impact and significance to the public, peers, or the discipline beyond the university.

Section 11.05   Evidence of Performance Indicators

Applicable performance indicators, and evidence supporting the candidate's performance for each indicator, will be assessed using the contents of the candidate's dossier. The description of evidence of performance indicators is found in Section 9.05 of this document.

Article XII.   Procedures for Update and Revision of the Unit Role and Scope Document

Faculty members or administrators that identify a need for improvement, clarification, or other revision to this Role and Scope document may submit a request for changes to the Dean of the College of Engineering. The Dean will forward the request to the Chair of URTPC. Submission to the URPTC chair should occur after the review committee or administrator completes all reviews for the year. Any proposed changes will be acted on within one year, and substantive changes will require approval by the college faculty.

Article XIII.   Approval Process

Section 13.01   Primary Academic Unit Role and Scope Document

(a) tenurable faculty and administrator of the primary academic unit;
(b) promotion and tenure review committee and administrator of all associated intermediate units (usually colleges);
(c) University Retention, Tenure, and Promotion Committee (URTPC); and
(d) Provost.

Section 13.02   Intermediate Academic Unit Role and Scope Document

(a) tenurable faculty and administrator of the intermediate unit;
(b) University Retention Tenure and Promotion Committee (URTPC); and
(c) Provost.

Section 13.03   University Role and Scope Document

(a) University Retention, Tenure, and Promotion Committee (URTPC);
(b) Faculty Senate;
(c) Deans' Council; and
(d) Provost.