



**Faculty Senate**  
**Motion 2023/2024-278-7**

**MOTION**

The UAF Faculty Senate moves to approve the Unit Criteria for College of Engineering and Mines (CEM).

EFFECTIVE: Spring 2024, or upon Chancellor Approval

RATIONALE: The Unit Criteria Committee has assessed the unit criteria submitted by the CEM. The document was reviewed by the Unit Criteria Committee during meetings held in the Fall of 2023, and the Spring of 2024. It was finally approved on the 21st of February 2024. No substantive alterations were made from the last approved unit criteria except for a change in template and a majority of the unit faculty voted to approve the criteria. Therefore, the CEM Criteria was approved because it was found to be consistent with UAF guidelines.

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This action was passed by the Faculty Senate on March 4, 2024.

DocuSigned by:  
*Jennifer Carroll* March 5, 2024  
77182FF52923422  
Jennifer Carroll, UAF Faculty Senate President

The Chancellor:  Approves  Vetoes  Acknowledges

DocuSigned by:  
*Daniel M. White* Date: March 7, 2024  
AE6BD6A19CA648C  
Daniel M. White, UAF Chancellor

UAF Unit Criteria  
for  
**COLLEGE OF ENGINEERING AND MINES**

Criteria for UAF Faculty Evaluation are outlined in the document “University Policies and Procedures (The Faculty Blue Book)” Chapter III adopted in February 2020. This Chapter details the: A. Purpose; B. Types of Evaluation for Different Faculty; C Evaluation Process for Retention, Promotion, Tenure and Post-Tenure Review; D. Criteria for Instruction; E. Criteria for Research, Scholarly, and Creative Activity; F. Criteria for Public, University and Professional Service; and G. Unit Criteria.

As stated in Chapter III G, Units may develop special Unit Criteria to elucidate, but not replace, the university-wide criteria applicable to all faculty.

The following is an adaptation of the “University Policies and Procedures (The Faculty Blue Book)” Chapter III for use in evaluating the faculty of the **COLLEGE OF ENGINEERING AND MINES**. Items in **boldface italics** are those specifically added or emphasized because of their relevance to the Department/Discipline’s faculty, and because they are additions to the University Policies and Procedures.

## **Chapter III: Faculty Evaluation**

### **A. Purpose**

*Excerpted from the “University Policies and Procedures (The Faculty Blue Book)” Chapter III A.*

It is the policy of the university to evaluate faculty on the basis of the criteria identified below. Evaluations shall appraise the extent to which each faculty member has met the performance assignment, the extent to which the faculty member's professional growth and development have proceeded, and the prospects for the faculty member's continued professional growth and development. Evaluations shall also identify changes, if any, in emphasis required for promotion, tenure and continued professional growth and may result in the initiation of processes to improve performance.

For purposes of evaluation at UAF, the total contribution to the university and activity in the areas outlined below will be defined by demonstrated competence from the following areas: 1) effectiveness in teaching; and/or 2) achievement in research, scholarly and creative activity; and/or 3) effectiveness of service.

***The level of productivity expected of a faculty member in each area (teaching, research, and service) will be commensurate with the percentage of their workload dedicated to such activity.***

### **B. Types of Evaluation for Different Faculty**

*See “University Policies and Procedures (The Faculty Blue Book)” Chapter III B for the description of the types of evaluation for different faculty.*

### **C. Evaluation Process for Retention, Promotion, Tenure and Post-Tenure Review**

*Excerpted from the “University Policies and Procedures (The Faculty Blue Book)” Chapter III C.*

#### **1. General Evaluation Criteria**

Evaluators may consider, but shall not be limited to, whichever of the following are appropriate to the faculty member’s professional obligation, as specified in the workload agreements:

- mastery of subject matter;
- effectiveness in teaching;
- achievement in research, scholarly, and creative activity;
- effectiveness of public service;
- effectiveness of university service;
- demonstration of professional development; and
- quality of total contribution to the university.

In addition, departments or disciplines may elaborate in writing, with Faculty Senate approval, on these or other criteria which take into account the distinctive nature of the discipline or special university assignment. See Unit Criteria.

#### **D. Criteria for Instruction**

A central function of the university is instruction of students in formal courses and supervised study. Teaching includes those activities directly related to the formal and informal transmission of appropriate skills and knowledge to students. The nature of instruction will vary for each faculty member, depending upon workload distribution and the particular teaching mission of the unit. Instruction includes actual contact in classroom, correspondence or electronic delivery methods, laboratory or field and preparatory activities, such as preparing for lectures, setting up demonstrations, and preparing for laboratory experiments, as well as individual/independent study, tutorial sessions, evaluations, correcting papers, and determining grades. Other aspects of teaching and instruction extend to undergraduate and graduate academic advising and counseling, training graduate students and serving on their graduate committees, and curriculum development.

##### 1. Effectiveness in Teaching

Evidence of effectiveness in teaching may be demonstrated through, but not limited to, evidence of the various characteristics that define effective teachers. Effective teachers ***will demonstrate many, but not necessarily all, of the following characteristics in an individual year:***

- a. are highly organized, plan carefully, use class time efficiently, have clear objectives, have high expectations for students;
- b. express positive regard for students, develop good rapport with students, show interest/enthusiasm for the subject;
- c. emphasize and encourage student participation, ask questions, frequently monitor student participation for student learning and teacher effectiveness, are supportive of student diversity;
- d. emphasize regular feedback to students and reward student learning success;
- e. demonstrate content mastery, discuss current information and divergent points of view, relate topics to other disciplines, deliver material at the appropriate level;
- f. regularly develop new courses, workshops and seminars and use a variety of methods of instructional delivery, instructional design, and materials ***including the development of distilled knowledge (for example: books, software, documentation) for student use;***
- g. regularly expend effort towards future oriented educational development;
- h. may receive prizes and awards for excellence in teaching.
- i. ***disseminate new ideas to students resulting from research and other engineering activities, such as consulting and service on review panels;***
- j. ***involve students, especially graduate students, in quality research activities***

***Specific CEM criteria for teaching performance before promotion/tenure or appointment to:***

- I. Assistant Professor: Evidence of teaching ability and a commitment to a quality teaching program must be provided, as well as evidence of an effort toward continual improvement***
- II. Associate Professor: The record must show that the material taught is contemporary and relevant, and that the presentations stimulate the learning process. Evidence of the expected quality of instructional performance may include (but is not limited to) course and/or curriculum development, novel approaches to instruction, effective guiding and mentoring of students, and effective classroom teaching performance. There must be evidence of successful mentorship of graduate student research to completion of degree (as a major supervisor or co-supervisor).***
- III. Professor: Significant contributions to the instructional program are expected. These may include, but are not limited to, contributions to major improvements in course and/or curriculum offerings, upgrading of instructional facilities, ability to motivate and/or inspire students. There should be a record of continuing successful mentorship of graduate students as exemplified by joint authorship of publications, involvement of graduate students in research projects, and completion of graduate degrees under their supervision since the previous promotion. It is expected that assessment of teaching by students and faculty demonstrate consistently high-quality performance.***

2. Components of Evaluation

Effectiveness in teaching will be evaluated through information on formal and informal teaching, course and curriculum material, academic advising, training/guiding graduate students, etc., provided by:

- a. evidence in the narrative self-evaluation, which may include their underlying philosophy of teaching as it relates to effectiveness in teaching;
- b. summaries of teaching evaluations;

and at least two of the following that are supported with evidence that is not solely in the narrative self-evaluation:

- peer classroom observation(s) and evaluation of lecture(s),
- peer evaluation of course and compiled materials,
- pedagogical organization as evidenced through peer evaluation of course syllabi,
- documented use of best practices in teaching through external or peer review,
- evidence of meeting course-level student learning outcomes, which may include student pre/post tests,
- evidence of pedagogical training with peer or external reviewed and documented outcomes as implemented in the classroom

Individual units may choose to require particular items from this list through their unit criteria.

***Student ratings are to be considered in context with other evaluations and not to be considered the sole metric for teaching evaluation.***

**E. Criteria for Research, Scholarly, and Creative Activity**

Inquiry and originality are central functions of a land grant/sea grant/space grant university and all faculty with a research component in their assignment must remain active as scholars. Consequently, faculty are expected to conduct research or engage in other scholarly or creative pursuits that are appropriate to the mission of their unit, and equally important, results of their work must be disseminated through media appropriate to their discipline. Furthermore, it is important to emphasize the distinction between routine production and creative excellence as evaluated by faculty peers at the University of Alaska and elsewhere.

1. Achievement in Research, Scholarly and Creative Activity

Whatever the contribution, research, scholarly or creative activities must have **one or more** of the following characteristics:

- a. They must occur in a public forum.
- b. They must be evaluated by appropriate peers.
- c. They must be evaluated by peers external to this institution so as to allow an objective judgment.
- d. They must be judged to make a contribution.

2. Components of Research, Scholarly and Creative Activity

Evidence of excellence in research, scholarly, and creative activity may be demonstrated through, but not limited to:

- a. Books, reviews, monographs, bulletins, articles, proceedings, research data and metadata, and other scholarly works published by reputable journals, scholarly presses, and publishing houses that accept works only after rigorous review and approval by peers in the discipline.
- b. Competitive grants and contracts to finance the development of ideas or projects and programs, these grants and contracts being subject to rigorous peer review and approval.
- c. Presentation of research papers before learned societies that accept papers only after rigorous review and approval by peers.
- d. Exhibitions of art ***and engineering*** work, ***scientific visualizations and computer animations*** at galleries, ***conferences and museums***, where selection for these exhibitions ***is*** being based on rigorous review and approval by juries, recognized artists, or critics.
- e. Performances in recitals or productions, selection for these performances being based on stringent auditions and approval by appropriate judges.
- f. Scholarly reviews of publications, art works and performance of the candidate.
- g. Citations of research in scholarly publications.
- h. Published abstracts of research papers.

- i. Reprints or quotations of publications, reproductions of art works, and descriptions of interpretations in the performing arts, these materials appearing in reputable works of the discipline.
- j. Prizes and awards for excellence of scholarship.
- k. Awards of special fellowships for research, scholarly or creative activities or selection of tours of duty at special institutes for advanced study.
- l. Development of processes or instruments useful in solving problems, such as computer programs and systems for the processing of data, genetic plant and animal material, and where appropriate obtaining patents and/or copyrights for said development.
- m. Inventions, disclosures with substantial documentation, patent applications and awards, and transfer of developed intellectual property (patents, copyrights, and trade secrets) to a commercial entity.
- n. The provision of expertise, service, performance and/or exhibition, to or with rural and/or Native communities; where such expertise/service/performance/exhibition is documented in books, programs, reviews, monographs, bulletins, articles, proceedings, reports, manuals, needs assessments, program evaluations, strategic plans, proposals, legal research memoranda and tribal judicial opinions, annotated bibliographies, translations, transcriptions, audio recordings, video recordings, websites, data collections, and in professional, industry, or government publications; after review and evaluation by appropriate peers from the entities and/or communities served.

Individual units may choose to require particular items from this list through their unit criteria.

***Specific CEM criteria for research performance before promotion/tenure or appointment to:***

- I. Assistant Professor: Evidence of research ability and a commitment to establish a viable research program.***
- II. Associate Professor: The faculty member must have established an appropriate research program as evidenced by peer-refereed, high-quality professional publications (indexed in the web of science (SCI) and/or the engineering index (EI), where applicable). The acquisition of external research funding is also important evidence of research productivity. The faculty member must show leadership and independence as evidenced by presentation of research results at professional meetings, submission of research proposals as PI or Co-PI, and creation of research ideas resulting in journal and/or conference publications that involve students. Sustained productivity must be shown with adequate evidence of research activities since initial appointment.***
- III. Professor: The faculty member must demonstrate a sustained, professional, independent research program as evidenced by peer-refereed, high-quality professional publications (indexed in the web of science (SCI) and/or the engineering index (EI), where applicable). The acquisition of significant external research funding as PI is typically expected. The faculty member must show leadership and independence as evidenced by presentation of research results at***



***professional meetings, submission of research proposals as PI, and creation of research ideas resulting in journal and conference publications that involve students. Sustained productivity must be shown with adequate evidence of research activities since the previous tenure/promotion/appointment. A national or international reputation of the candidate, as demonstrated by a high number of article citations, professional activities, invited presentations at meetings, and documented opinions of other engineers and scientists in the field, is expected.***

#### **F. Criteria for Public, University and Professional Service**

Public service is intrinsic to the land grant/sea grant/space grant tradition, and is a fundamental part of the university's obligation to the people of its state. In this tradition, faculty providing their professional expertise for the benefit of the university's external constituency, free of charge, is identified as "public service." The tradition of the university itself provides that its faculty assumes a collegial obligation for the internal functioning of the institution; such service is identified as "university service."

Each individual faculty member's proportionate responsibility in service shall be reflected in annual workload agreements. In formulating criteria for evaluation, promotion, and tenure, individual units should include examples of service activities and measures for evaluation appropriate for that unit. Effectiveness in public, university and professional service may be demonstrated through, e.g., appropriate letters of commendation, recommendation, and/or appreciation, certificates and awards, media presence and other public means of recognition for services rendered.

##### **1. Public Service**

Public service is the application of teaching, research, and other scholarly and creative activity to constituencies outside the University of Alaska Fairbanks. It includes all activities which extend the faculty member's professional, academic, or leadership competence to these constituencies. It can be instructional, collaborative, or consultative in nature and is related to the faculty member's discipline or other publicly recognized expertise. Public service may be systematic activity that involves planning with clientele and delivery of information on a continuing, programmatic basis. It may also be informal, individual, professional contributions to the community or to one's discipline, or other activities in furtherance of the goals and mission of the university and its units. Such service may occur on a periodic or limited-term basis. Examples include, but are not limited to:

- a. Providing information services to adults or youth.
- b. Service on or to government or public committees.
- c. Service on accrediting bodies.
- d. Active participation in professional organizations.
- e. Active participation in discipline-oriented service organizations.
- f. Consulting.
- g. Prizes and awards for excellence in public service.
- h. Leadership of or presentations at workshops, conferences, or public meetings.



- i. Training and facilitating.
- j. Radio and TV programs, newspaper articles and columns, publications, newsletters, films, computer applications, teleconferences and other educational media.
- k. Judging and similar educational assistance at science fairs, state fairs, and speech, drama, literary, and similar competitions.
- l. Active engagement in public communication of discipline-based knowledge, defined as using the research methods, theories, and analytical frameworks of the discipline to make discipline-based research and analysis accessible and useful to the lay public. Public service in this area includes, but is not limited to: blogs, documentary films, short films, op-eds published in local, regional, and/or national newspapers and online news sites; radio broadcasts; podcasts; and a strategic and sustained discipline-based presence on social media.

## 2. University Service

University service includes those activities involving faculty members in the governance, administration, and other internal affairs of the university, its colleges, schools, and institutes. It includes non-instructional work with students and their organizations. Examples of such activity include, but are not limited to:

- a. Service on university, college, school, institute, or departmental committees or governing bodies.
- b. Consultative work in support of university functions, such as expert assistance for specific projects.
- c. Service as department chair or term-limited and part-time assignment as assistant/associate dean in a college/school.
- d. Participation in accreditation reviews.
- e. Service on collective bargaining unit committees, elected office, representative assembly membership and labor management committees.
- f. Service in support of student organizations and activities.
- g. Academic support services such as library and museum programs.
- h. Assisting other faculty or units with curriculum planning and delivery of instruction, such as serving as guest lecturer.
- i. Mentoring *of faculty*.
- j. Prizes and awards for excellence in university service.
- k. Invoicing, transferring and securing of funds for the University for contract work (lab fees, consultant work) and intellectual property fees and commercialization fees.
- l. Service as outside reviewer on thesis committees.***
- m. Preparation of university reports and online information.***

## 3. Professional Service

Professional service includes activities related to promoting a faculty member's profession or specialization, including service to professional associations and organizations. Examples of such activity include, but are not limited to:

- a. Editing or refereeing articles or proposals for professional journals or organizations.
- b. Active participation in professional organizations.
- c. Active participation in discipline-oriented service organizations.
- d. Committee chair or officer of professional organizations.
- e. Organizer, session organizer, or moderator for professional meetings.
- f. Service on a national or international review panel or committee.

***Specific CEM criteria for service performance before promotion/tenure or appointment to:***

- I. Assistant Professor: Evidence of a commitment to contribute to the service mission of the college.***
- II. Associate Professor: Positive contributions to the departmental and/or university matters, effective professional contributions to the public, and/or effective service to the profession are expected.***
- III. Professor: Evidence of leadership in the service area is expected. Significant contributions to the development of departmental and/or university programs including committee leadership or UAF faculty senate service and associated committees are expected. Effective application of service includes professional expertise provided to professional or public organizations such as engineering society leadership, reviewing proposals, refereeing manuscripts, and editing for professional organizations or publications.***

**G. Unit Criteria**

*Excerpted from the “University Policies and Procedures (The Faculty Blue Book)” Chapter III C.*

Unit criteria are recognized values used by a faculty within a specific discipline to elucidate, but not replace, the general faculty criteria established in D, E, F, above for evaluation of faculty performance on an ongoing basis and for promotion, tenure, 4th year comprehensive and diagnostic review, and post-tenure review. Discipline based unit criteria should be fully aligned with the university-wide evaluation criteria in order to reflect the specific nature of individual disciplines.

Unit criteria when developed by the faculty and approved by the Faculty Senate, must be used in the review processes by all levels of review. Their use is NOT optional. It shall be the responsibility of the candidate for promotion, tenure, 4th year comprehensive and diagnostic review, and post-tenure review to include these approved unit criteria and all their workloads in the application file.