

UAF Unit Criteria
for
Alaska Center for Energy and Power (ACEP)

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 *research* faculty of the *Alaska Center for Energy and Power (ACEP)*. 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.

Research faculty are not eligible for tenure. As modified this document represents research faculty that do not have a joint appointment with an academic department. Faculty with joint appointments with ACEP and an academic department are to be evaluated according to the academic department’s unit criteria.

Preamble

The purpose of unit criteria for ACEP is to establish metrics for research faculty to assess their professional growth, to guide faculty preparation of materials for peer review panels, and to guide peer review panel members evaluating candidates seeking promotion. Unit criteria metrics focus on a research faculty member's total contributions, impact, and stature as they relate to the current work assignment, which should demonstrate professional growth at each faculty rank.

The ACEP unit criteria are meant to satisfy a need, identified by both research faculty and peer review panel members, to have specific guidelines describing work performance expectations at each faculty rank (assistant, associate and full professor). The ACEP unit criteria include the base level performance requirements of the university with additions to address the diverse work areas undertaken by the research faculty.

Research faculty within ACEP conduct a broad array of activities that fall into the categories of basic research, applied research and technology development, engineering research and practice, and commercialization of intellectual property. Research faculty provide technical consulting to industry, government entities, and community stakeholders, and they form research and development and technology implementation partnerships with industry, academic collaborators, and community stakeholders. The range of discipline focus within ACEP can include physical, biological and ecological sciences as well as engineering, economics, and biomedical research. The diversity of activity and discipline focus make it challenging to examine ACEP research faculty's professional accomplishments since measures of contribution, impact, and stature vary for these diverse disciplines. ACEP definitions of contributions, impact, and stature need to be sufficiently general to encompass this breadth of work focus and activities.

Contributions are indicative of a research faculty member's knowledge, skills and experience; they are the means of communicating results to a broader community, thus ensuring the highest degree of potential impact from the work. Contributions may include publications, proposals, innovations and intellectual property, technology development and transfer, and capacity growth within the university or external entities. The type of contribution is less important than its impact. For example, publications may include journal articles, books, customer reports, maps, interpretive materials, physical models, reviews and monographs.

Impact is the measure of the importance of a research faculty member's contributions to science, engineering, communities, industry, economics, and other facets of society and the natural world. Given the inquiry nature of a research faculty member's work, results can affect many areas of society. Measures of impact may include setting new research directions, developing new techniques or tools to be used by others, increasing the capacity or efficiency of programs or organizations to perform their mission or conduct business, and influencing organizational policy outcomes.

Stature is a function of the recognition that a research faculty member receives from the scientific/engineering community and/or society. Expressions indicative of stature may include requests for expert advice and consultation by other professionals, managers or organizations; requests to lead research teams or projects; and invitations to serve on advisory or review boards/panels. Stature may also be indicated by requests to organize or chair committees, workshops or symposia; invitations to address scientific or professional organizations; recognition by professional societies or external groups; or honors and awards.

The following sections in the ACEP unit criteria describe activities relevant to accomplishments at the assistant, associate and full professor ranks. These sections attempt to account for the broad categories of focused work that encompass ACEP research faculty efforts.

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.

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

This section does not apply to bipartite research faculty with bipartite workloads. For a bipartite research faculty with a bipartite workload, any training, education and workforce development activities are described under the criteria for research, scholarly and creative activity. However, bipartite faculty may temporarily accept a tripartite function, i.e. the faculty is formally teaching a class, and if so, a tripartite function should be considered during promotion review if the research faculty member has an assigned teaching workload. The tripartite evaluation should be part of the review in the same proportion as it is to the whole workload for the entire review period.

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:

- 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;
- g. regularly expend effort towards future oriented educational development;
- h. may receive prizes and awards for excellence in teaching.
- i. ***Successful mentoring/teaching of interns, undergraduate and graduate students including but not limited to; formal and informal advising, laboratory training, participation in field work, undergraduate completion of research projects (e.g. URSA, capstone projects etc.), student/intern publications, conference papers, and posters stemming from PI/co-PI research, curriculum***

development, guest lectures and other course activities, student recruitment/retention (including funding opportunities for graduate and undergraduate students).

- j. *Successful mentoring of graduate and/or undergraduate student research (which can be demonstrated for instance by one or more of the following: student presentations, publications, awards or grant success).*

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.

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 *and audience*. 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***, selection for these exhibitions 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 ***and engineering works, scientific visualizations and computer animations*** 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.

- o. Technical reports provided to an expert audience or private entity.*
- p. Acquisition, documentation and transfer to the public domain of significant data sets.*
- q. Strategic planning and technical and scientific leadership of research facilities and infrastructure to develop new research capabilities, develop research partnerships, and the support of non-traditional business ventures and applied research at the university, e.g. recharge and enterprise centers.*

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

I. Research assistant professor: evidence of expertise, ability and intent to establish a sustained research program at ACEP.

II. Research associate professor: must have established an appropriate research program. The faculty member should show independence and leadership by the creation of research ideas that translate into funded independent and/or collaborative projects or publications. Examples for such a research program may include:

- Leadership in preparation and submission of research proposals;*
- Acquisition of external research funding;*
- Publications in refereed professional journals, or equivalent, demonstrating significant scientific contributions. It is important for the faculty member to clearly discuss the importance of their scientific contributions in the narrative.*
- Presentation of research results at national professional meetings;*
- Completion of contract research reports;*
- Development of intellectual property into protected formats (patents, including pending patents, copyrights, and trade secrets) and commercialization of such intellectual property through university or private ventures;*
- Provision of guidance to professional organizations, and branches of government, e.g., board of advisors, standard committees, consulting on impacts of legislative action;*
- Invited participation in peer review activities;*
- Publication of relevant data and metadata, contribution to cyber structure, or contribution to publicly available computer models;*

The peer review panel should ensure that publications and meetings are sponsored by reputable organizations. Papers in proceedings of conferences known for rigorous peer-review and documented low acceptance rates may be considered as supplemental

publications, where applicable. Publication in conference proceedings constitute supplementary evidence that the research program is of high quality. It is essential for the faculty member to clarify in their narrative their, and their co-author's(s') role and creative contributions in multiple-authored publications. This philosophy of explaining the faculty role and contributions also applies to collaborative proposals.

III. Research professor: must have sustained a consistent, productive, independent and/or collaborative research program(s) since advancement to research associate professor. A research program should have produced quality research products that make significant impact to the field and to have earned the faculty member national and/or international stature in the area of research. This could be documented through:

- *Service in a leadership role in project and program execution, for example in internal project teams, complex multi-disciplinary and/or multi-agency or multi-institution projects*
- *Quality publications in rigorous peer-reviewed journal articles, conference publications and other forms of literature such as monographs, books, reviews, agency and customer reports, models, maps, and novel interpretative materials. For example, evidence of quality publications may include:*
 - *The number of citations past publications have received*
 - *The quality of the journals such as their "impact factor"*
 - *External reviews stating the papers made major contributions*
 - *Invited talks and book chapters*
 - *Professional awards*
- *Service in a leadership role in project and program execution, for example in internal project teams, complex multi-disciplinary and/or multi-agency or multi-institution projects*
- *Impacts may include setting new research directions, developing new techniques or tools to be used by others, increasing the capacity or efficiency of programs or organizations to perform their mission or conduct business, and influencing organizational policy outcomes.*
- *The faculty member should have attained a national and/or international reputation which may be demonstrated by:*
 - *A high number of professional article external citations;*
 - *Professional activities with external collaborators;*
 - *Presentations at national and international meetings;*
 - *Invitations to address scientific or professional organizations;*
 - *Invitations to write synthesis papers;*
 - *Requests to organize or chair committees, workshops, or symposia;*
 - *Recognition by professional societies and external groups;*
 - *Honors and awards; or*
 - *Documented opinions of other engineers and/or scientists in the field.*

The peer review panel should ensure that publications and meetings are sponsored by reputable organizations. Papers in proceedings of conferences known for rigorous peer-review and documented low acceptance rates may be considered as supplemental publications, where applicable. Publication in conference proceedings constitute supplementary evidence that the research program is of high quality. It is essential for the faculty member to clarify in their narrative their, and their co-author's(s') role and creative contributions in multiple-authored publications. This philosophy of explaining the faculty role and contributions also applies to collaborative proposals.

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

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.

Expectations for the service component of a bipartite position within ACEP will vary by individual research faculty and will be explicitly outlined in biannual workload assignments. It is not unusual that the service component is 10% or less of the biannual workload.

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.
- m. Hosting events at research facilities, e.g., tours, open houses etc. Intended for public or professional outreach (may also be counted as university or professional service depending on the audience).***

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. ***Within ACEP this may include research center director.***
- 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.
- g. ***Serving as a mentor/advisor, committee member or external examiner for students at other institutions.***
- h. ***Provision of guidance to professional organizations, and branches of government, e.g., board of advisors, standard committees, consulting on impacts of legislative action.***
- i. ***Invited participation in peer review activities;***
- j. ***Invitation to edit or referee articles or proposals for professional journals or organizations can be taken as evidence of obtaining stature from colleagues.***
- k. ***Invitation to participate in the development of standards and regulation by nationally and internationally recognized standardization bodies and regulatory entities, as well as the consulting on the development of standards, regulations and legislation.***

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.