

COLLEGE OF SCIENCE

FACULTY AND PROFESSIONAL PERSONNEL POLICIES

(Revised February, 2014)

REFERENCES:

Arizona Board of Regents Policy Manual, Chapter VI, Personnel Policies: section B, Faculty; section C, Academic [and Service] Professional.

University Handbook for Appointed Personnel (UHAP), Second Edition (1995), Chapters 3 and 4.

"Recommendations of the Deans' Council Regarding University Teaching," (1989)

I. GENERAL FACULTY AND PROFESSIONAL PERSONNEL POLICIES

A. PURPOSE

To avoid duplication and inconsistency as a result of updates in policies, these policies deal only with topics not covered or not completely developed in University procedures. They are additional to and not a substitute for University policies and instruction letters. The purpose of these policies is to ensure:

1. That we treat all candidates for recruitment for appointed positions, all candidates for promotion and tenure or continuing status, and all appointed personnel fairly and in a way that encourages their personal development.
2. That we improve the quality of faculty and professionals in the College of Science.
3. That we make quality in research, instruction and service a practical reality, by evaluating, recognizing and rewarding them in the selection, evaluation, and promotion and tenure/continuing status processes.
4. That we abide by the laws and policies affecting personnel appointments, evaluation, and promotion and minimize causes for appeals and legal action.

B. POLICIES

1. Required Reviews: The Arizona Board of Regents Policy Manual mandates annual performance reviews of all faculty and professional staff. The UHAP additionally requires:
 - a. Three-year reviews of tenure- or continuing status-eligible employees.
 - b. Tenure or continuing status reviews of those eligible for tenure or continuing status.
 - c. Promotion reviews of assistant and associate professors and of assistant and associate research and staff scientists.
2. Peer Review: Peer review is required as a part of the process for both evaluations and for promotion and tenure and promotion and continuing status. Faculty, and sometimes professional, input on recruiting is also needed and is best

accomplished with a recruiting committee. These departmental committees are advisory to the department head. They are extremely important however because ultimately no set of rules can substitute for judgment in examining people, circumstances, degree of contribution and unusual contributions.

3. Uniform Standards: All departments must use uniform standards for reviews for recruitment, evaluation, and promotion and tenure or continuing status. The use of consistent standards helps ensure that the award or denial of promotion, tenure, or continuing status will not be a surprise or a cause for grievance or litigation. For example, all candidates being considered by a department should report manuscripts submitted and in review, as opposed to manuscripts in press, or none should. In addition, on all lists of publications prepared for evaluation or review:
 - a. List authors in the order in which they appear in the published paper.
 - b. List refereed publications separately from non-refereed.
4. Equal consideration: Reviewers must treat all candidates in the same circumstances alike. In preparing dossiers and in processing cases, departments must avoid even the appearance of selectively documenting candidates' files. This not only helps assure each candidate of fair consideration, but also averts the chance that questions of prejudice in handling may arise later.
5. Departmental Policies: Each department shall establish policies consistent with College of Science and University policies, but these only need to cover those items not covered elsewhere in adequate detail.
6. Committees for Professionals: Each department with three or more professionals holding continuing or continuing-eligible status shall establish an academic and service professional review committee for annual evaluations and promotion and continuing status. Committee members must be professionals with continuing or continuing-eligible status. Evaluation and promotion and continuing status committees may have the same membership. A department with fewer than three continuing or continuing-eligible professionals may use the faculty review committees, augmented as appropriate by one or more professionals. Alternately, the department may establish a separate committee of faculty and professionals appropriate to the assignments and specialization of the professionals being reviewed.
7. Special Performance Criteria: In some cases, activities and measures other than the normal ones may be relevant in evaluating performance. For instance, software or courseware may be significant contribution to a research, instructional or service field. Departments and committees should encourage such activities and reward it appropriately when it is a true and valuable academic effort and is in accord with personnel and other policies.

C. DEFINITIONS

1. Peer: When considering *standards of excellence*, the peer group is the international community of scientists, *not* the department or college community.
2. Excellence: Excellence concerns quality, not just quantity. Listing the activities of the candidate and counting publications or grants are not enough. The degree of originality, size of contribution, and impact in advancing thought in a field are all important. Departments may base hiring, reviews and recommendations on a

selected group of the candidate's most significant contributions rather than on quantitative indicators. Candidates and departments must still provide quantitative indicators for promotion and tenure or promotion and continuing status reviews.

D. RESPONSIBILITY

Department committees and heads are responsible for ensuring that departmental recruiting, evaluation, and promotion and tenure or promotion and continuing status committees critically evaluate candidates against the standards of the college and the department. Only those candidates who are genuinely and fully qualified should be recruited, promoted or granted tenure or continuing status.

E. JOINT APPOINTMENTS AND SHARED APPOINTMENTS

1. Joint appointments are courtesy (non-funded) appointments between departments.
2. Courtesy titles do not, by themselves, establish either rights in a unit nor the need for consideration of interdisciplinary efforts in evaluation.
3. Shared appointments involve FTE funding.

F. SHARED APPOINTMENTS AND INTERDISCIPLINARY ACTIVITY

1. Responsibility: The department in which an individual holds (or will hold) a 51% FTE or greater appointment is responsible for initiating recruiting and reviews processes unless alternate arrangements are made and approved by the dean(s). However, all departments involved in a shared appointment must have a chance to provide input in the recruiting or evaluation process. For a position or an employee with no appointment of more than 50% FTE in any one department, the department heads should arrange procedures appropriate to the individual case, with the concurrence of the related deans and the employee.
2. Shared Appointments: Shared appointments are a single appointment and must be regarded and evaluated as such. There must be a single evaluation process based on a single job description and set of criteria agreed upon by the units part of the shared appointment. Procedures for conducting searches and evaluations shall recognize that each department shares part of a single appointment and departments and programs will cooperate in good faith in sharing the services and evaluations of the individuals involved in such appointments.
3. Interdisciplinary activity: Regardless of whether a shared appointment exists, when a candidate is involved in substantial interdisciplinary activity, any review process shall take the interdisciplinary work fully into account. Depending upon the proportion of the candidate's work which is interdisciplinary, it may be enough to include in the dossier a letter from the chair of the interdisciplinary committee or the department head of a department other than the candidate's home department. If the candidate's involvement takes a substantial part of their time, it may be necessary to include in a review committee a member from the other department or committee involved. When a candidate's work is substantially interdisciplinary, at least one of the external review letters should come from a scholar in the field of the interdisciplinary work of the candidate. Reviewers from all departments

concerned must look at the entire record, not just the part that applies to their department.

4. Appointments as faculty and academic professional: When a faculty member holds a shared appointment as an academic professional, faculty policies rather than academic professional policies shall apply.

G. CAREER DEVELOPMENT AND SUPPORT

To make our commitment to faculty self-development and to the self-improvement purposes of the evaluation system meaningful, departments must take positive action to encourage and support faculty or professionals in self-improvement efforts. Minimum activities to this end include:

1. The UHAP requires that department heads and the departmental standing committees on promotion and tenure and continuing status meet at least once a year with tenure- and continuing status-eligible staff to review University, college, and departmental criteria and to answer questions.
2. Each department should provide a mentoring system for new faculty or professionals coming into the department to advise and counsel new faculty members on matters such as design, preparation, and conduct of courses, generation of grant proposals, submission of publications, and general strategy for career decisions and opportunities.
3. The main purpose of 3 year reviews of faculty or professionals for promotion or tenure/continuing status is the development of the candidate. The most important part of the review process is the communication with the candidate clarifying where he or she stands and what needs to be done to continue to progress in the promotion and tenure/continuing status process.
4. If an associate professor or associate research scientist is turned down for promotion but the committee believes that a further or sustained effort might result in promotion to professor or research scientist later, the committee and the department head should provide explicit guidance to the candidate on what he or she must do to be promoted.

[This section updated 2/17/2014 – BLET]

II. FACULTY AND PROFESSIONAL PERFORMANCE STANDARDS

A. GUIDELINES FOR JUDGING WORKLOAD

1. Balancing Workloads: Workload is the sum of instruction, research and service contributions. Neither the University nor the College of Science has placed specific percentage requirements on research, instruction, and service. However, if a person has a low instruction or research load, they should have a correspondingly heavier load in the area(s) where they are concentrating. Excellence in performance on a small load is not enough to rate as excellent or even satisfactory performance overall.
2. Workload Minimums and Variations: All departments shall define minimum workload standards based on these policies and the needs of the department. These guidelines shall recognize the need to change direction and permit reasonable variation in emphasis on instruction, research and service year-to-year and over the course of the individual's career. Changes in workload must be agreed to with department heads in advance and must conform to departmental needs.
3. Instructional Loads: All faculty must do some classroom teaching. For faculty with no research, service or other instructional work, the benchmark teaching load is four entry level lecture courses with two preparations in a department with large service loads. In practice, instructional work is often integrated with research, especially for graduate students. This instructional work should be included in consideration of instructional loads. Departments shall define appropriate equivalents for laboratory and upper division or graduate courses, advising, independent study, and work with graduate and undergraduate students in research laboratories.
4. Service Loads: In balancing workloads, departments shall recognize the need of new faculty members or professionals to establish themselves in their careers. Such individuals should not be weighed down by service obligations. Faculty, and when appropriate, professionals with joint appointments or women or minority faculty members must not be pressured into extraordinary and damaging service obligations. As faculty and professionals advance in their careers, the department(s) should recognize their greater potential for service contributions.
5. Research Loads: Research loads should reflect the stage of one's career and disciplinary factors like the size of the research group he/she runs, experimentalist vs. theorist, and time spent on grants, facility support, support for colleagues, and interdisciplinary support.
6. Performance Improvement: The evaluation process should help people improve their performance as well as provide a basis for allocating merit adjustments and guiding promotion decisions. Departments must permit faculty members or professionals to adjust their work emphasis to revise programs, change directions or take steps to improve quality. Departments should encourage faculty and professionals, where appropriate, to make plans and set goals for such efforts and consider such improvement efforts in evaluations.

B. GUIDELINES FOR JUDGING EXCELLENCE

1. Judging Stature and Excellence in Research: Excellence in research means performance that changes the way we think about a field or issue and thus earns international stature. In evaluating research, evaluators should look especially for publications and other efforts that have had an impact on one or more fields and that reflect existing or developing international stature, e.g., refereed publications, invitations to substantial conferences, evaluation by internationally recognized scholars, grants and awards.
 - a. Only excellent scientists who have achieved or shown significant progress towards achieving international stature will be appointed or promoted to associate professor with tenure or associate research scientist with continuing status. Only those who have achieved international stature with the expectation that excellence will continue will be appointed or promoted to professor or research scientist.
 - b. The number of publications is an indicator of workload but not necessarily of excellence. The primary factor in determining excellence must be the *quality* of research and research publication. Departments must evaluate quality and ask references and evaluators to do so also. The degree of the impact of a candidate's work should be considered in the evaluation.
 - c. Reviewers may reasonably base decisions on a subset, selected by the candidate, of the total publication record, for instance, five publications for promotion and tenure or continuing status, ten publications for promotion to full professor or research scientist, three publications during the last two years for annual performance evaluation. In evaluating a publications record, also consider degree of contribution. Non-research publications and activities should be considered in evaluation of instruction or service rather than research contributions. Departments may also need to evaluate the stature of the peer reviewer on publications and presentations.

2. Judging Stature and Excellence in Instruction: Excellence in instruction means developing in students an understanding of and ability to use the methods and standards, as well as the content and history, of a discipline. Departments must devise systematic evaluation criteria and procedures and collect systematic information on instruction performance. Such criteria shall include as a minimum the following:
 - a. A tested, University- or department-wide evaluation form completed by students. This evaluation shall be collected by someone other than the faculty member during a regularly scheduled class period before the final exam. Departments shall not make the forms or summaries available to the faculty member until semester grades are submitted. In addition, departments will consider the norms for the scores for different types and levels of classes in using student evaluations. (See Student Evaluation Norms, a separate document.)
 - b. A review of syllabi, texts and examinations by qualified reviewers including, where appropriate, reviewers who are outside the department or who teach later courses in a course sequence.
 - c. Periodic interviews with graduates at all levels (at least once every two years).
 - d. Records and follow-up on post-graduate employment, performance in further education and post-doctoral positions, etc.

3. Judging Stature and Excellence in Service: Excellence in service means performance which earns national or international recognition for contributions that significantly benefit the discipline, or which increases public understanding, acceptance and application of the discipline and its findings. Service contributions outside the professional disciplinary area of the candidate, e.g., non-professional volunteer or political work, shall not be considered as a factor in evaluation. (Awards and honorary degrees are an appropriate means to recognize such contributions.)
 - a. In reviewing service contributions, evaluators should look especially for positions, publications and other efforts that reflect existing or developing national or international stature. This might include awards, grant funds, chairing of national or international committees or councils, widely used texts or widely read publications, and non-fee earning technology transfer activities.
 - b. Some service activities may be local, e.g., an innovative high school teaching program. In such cases, the activities must be extensive and strongly positive, reflecting well on the individual, his or her department, and the University. Participation by itself is not sufficient.
 - c. Departmental service may take a larger role in annual evaluations than in Promotion and Tenure or Promotion and Continuing Status evaluations. Departments should recognize the value to the department of those that devote extraordinary time and effort to creating first-rate department support facilities and programs.

C. DEPARTMENTAL CRITERIA

1. Required Criteria: Departments shall develop their own specific performance criteria by applying the general criteria above to their particular disciplines and circumstances. Departments may need additional criteria for specific processes such as the annual performance review, or for particular disciplines, positions, or circumstances. Difficulties have at times occurred because criteria were not available or not obvious to recruits or to evaluators not familiar with the discipline. Departmental criteria should address in particular such areas as:
 - a. Expectations within the discipline about joint or sole authorship, and the implications of these expectations for hiring, evaluation, or promotion.
 - b. Expectation of, and standards for, instructional excellence.
 - c. The use within a department of selected rather than exhaustive lists of publications.
 - d. The use of periods longer than one year in annual evaluations of employee performance.
 - e. The different needs and circumstances of theorists, experimentalists, clinicians, etc.
 - f. Joint appointments, especially when an individual's work may not match the norm in one or both of the joint departments.
 - g. Senior lecturers and adjunct faculty.
 - h. Academic and service professionals.
2. Service Professionals: The standards above may not directly apply to service professionals. Those departments with service professionals must take extra care in defining the job descriptions and performance standards for service

professionals. Departments should base such service professional standards on the above standards to the extent possible.

3. Review of Criteria: The UHAP requires that departments review their criteria for promotion and tenure or continuing status annually. Departments shall keep copies of current and past criteria and send copies of revised criteria to the dean, the Provost, and Faculty Services.

D. ADDITIONAL CRITERIA

Meeting the criteria for excellence is not a guarantee of a positive promotion or tenure/continuing status decision. Departments and the University must also respond to legal requirements, set priorities and allocate resources. Promotion and tenure or continuing status could be denied, for instance, when the area of specialization of the candidate will no longer be funded. Usually departments and deans should make such decisions before the promotion and tenure or promotion and continuing status process. However, if these types of reasons do lead to negative promotion and tenure or continuing status decisions, reviewers and administrators must explicitly state the reasons in recommendations at all levels. Department heads and others involved in such decisions should share this information with affected faculty or professionals as soon as the relevant information becomes available.

III. PROMOTION AND TENURE AND CONTINUING STATUS GUIDELINES

REFERENCES:

University of Arizona Draft Guidelines for Promotion and Tenure, 1988.

Provost's memo: Promotion and Tenure Process and Preparation of Dossiers and related memos, ca. April 25, 1995.

CROSS REFERENCES:

Promotion and tenure or continuing status review cycles, see UHAP Ch. 3, 4.

Eligibility for tenure or continuing status, see Recruiting Policy III, C, 5.

A. PURPOSE

1. To improve the overall quality of faculty and professional performance.
2. To help ensure that only excellent faculty and professionals hold permanent positions or titles in our departments.
3. To recognize those faculty and professionals who have chosen to work in a profession that requires sustained excellence and have succeeded in that profession.

B. CRITERIA

1. Three-year review of assistant professor or assistant research scientist: Materials should support an informed judgment concerning the likelihood that the candidate will achieve excellence in instruction (where applicable), research and service.
2. Promotion to associate professor or associate research scientist, or awarding of tenure/continuing status: The dossier must provide evidence of having achieved excellence in instruction (where applicable), research and service as defined in section II above with the expectation that this excellence will continue.
3. Promotion to professor or research scientist: The dossier must show that the candidate has achieved excellence in instruction (where applicable), research and service as shown by substantial evidence of national and international stature in appropriate fields with the expectation that this excellence will continue. Promotion to the rank of professor or research scientist is not automatic; it must be earned.

C. POLICIES

1. Peer Review: ABOR and University polices require peer review for promotion regardless of the percentage of state funding in the candidate's salary support.
2. Standing Committee Membership: Each standing committee shall have the same membership and a single chair for a given academic year. Faculty or professionals serving on committees at one level are ineligible for service on committees at another level during the same academic year.

- a. Definition of peer: For considering membership on standing committees on promotion and tenure or continuing status, a *peer* is a faculty member or professional of substantial reputation holding rank superior to the candidate (UHAP, Chapters 3 and 4), and performing satisfactorily.
 - b. Composition of committees in unusual circumstances: Some departments may have too few faculty or professionals of superior rank to form a committee. In these cases, the department head, in consultation with department faculty or professionals and with the dean, shall develop an alternative method of selecting committee members. The department head will also include a memorandum with each promotion and tenure or continuing status file explaining how the committee was selected.
3. Promotion and tenure or continuing status clock: Departments should be careful to include a clear schedule of the tenure or continuing status review dates (clock) in the letter of offer or other written communication to the candidate at the time of hire. Once established, the tenure or continuing status clock will not be changed except as provided by University regulations, e.g., for leaves of absence. When such changes are made, they must be in writing with copies given to the candidate, the department head, the dean, and the Office of Appointed Personnel.
 - a. Academic year of joining department: Faculty or professionals who join a department during the Fall semester or by the first day of the Spring semester shall be considered to have joined at the beginning of that academic year. Faculty or professionals who join a department after the beginning of the Spring semester shall be considered to have joined in the following academic year. Departments may request permission from the dean and the Provost to adjust these dates, especially for faculty or professionals arriving at the beginning of the Spring semester.
 - b. Effect of leave without pay: Unpaid leave of absence usually has the effect of adding a year to the candidate's tenure or continuing status clock. The effect of the leave, if any, on the promotion and tenure or continuing status clock of the faculty member or professional shall be specified in the letter requesting the leave or in the department head's response granting the leave. A copy of this letter must be sent to the dean and to the Office of Appointed Personnel
 - c. Record-keeping: Departments shall keep records on faculty status with respect to reviews and promotion and tenure or continuing status decisions.
4. Documentation: The Provost's annual instructions memo is very specific on content and format for the documentation required. Not all items on the checklist will apply to all candidates. Questions on this must be resolved on a case by case basis. The following requirements are additional to any set out by the Provost's office:
5. Reports to candidates and confidentiality of process: Only the final recommendations of the departmental standing committee and the department head may be released to the candidate. The candidate is not entitled to an explanation of the reasons for the decision *nor is the candidate entitled to examine*

the materials in the file except as provided by the Arizona Board of Regents and University of Arizona policies.

- a. Confidentiality of review process and materials: Reasons for acceptance or rejection, the outcome of votes, who voted which way, and all deliberations of committees and materials provided to, or prepared by committees are, and should be treated as, confidential. After committee members have completed their deliberations, their copies of dossiers and any other materials must be destroyed or, for the college committee, returned to the dean.
- b. Exception to confidentiality rule: When the reasons for denial of tenure or continuing status are unrelated to performance (see "Additional Criteria" above), the reasons should be shared with the candidate.
- c. Three-year reviews: The three-year review process is also confidential. However, after completion of the review, the department must convey any performance concerns to the candidate. The department head's letter to the candidate must state the concerns and recommendations. In addition, the committees may address the candidate directly and as they see fit.

D. STANDARD RESPONSIBILITIES OF STANDING COMMITTEES ON FACULTY STATUS:

1. Evaluation: The job of the departmental standing committee is to evaluate candidates, not to be an advocate for its candidates.
2. Documentation: The standing committee shall develop a file on each candidate that includes the material submitted by the candidate and that documents research, instruction, and service. To ensure an independent review, the departmental standing committee should not consult annual performance reviews, two/four and three-year reviews, and earlier promotion and/or tenure or continuing status files. Committees may consult prior reviews after their review is complete if they have questions about the adequacy of the guidance provided to candidates and need to make recommendations on providing guidance to candidates.
3. External referee letters: When documentation must include external letters, the committee shall obtain at least three and not more than eight external evaluations for each candidate.
 - a. Criteria for evaluators: Get evaluations from scientists, teachers, or others who:
 - 1) Have achieved international stature in the areas of activity affected by the candidate.
 - 2) Are not collaborators or mentors of the candidate (unless avoiding collaborators and mentors means accepting a lower ranked evaluator).
 - 3) Have no known biases for or against the candidate.
 - 4) Except for 3 year reviews, are all from outside the University of Arizona.
 - b. Letter to evaluators: To ensure that decisions at all levels are based on appropriate criteria, departments should solicit *evaluations* of candidates, *not letters of support*. The letter requesting the evaluation should identify what decision is being considered and should request an evaluation of the candidate specifically addressing that particular decision. External referees should be provided with the candidate's current curriculum vitae and other

documentation as appropriate. (The Provost's annual instructions memorandum includes a sample letter to outside evaluators.)

- c. Presentation of evaluations: In preparing materials for review, departments must include all letters received as part of the evaluation in the file; department heads and committees may not selectively document a review. Negative evaluations and letters declining the request to evaluate the candidate must be included in the dossier, along with a list of persons from whom no response was received. (The department may provide explanations for non response when available.) The rationale for the selection of evaluators and information regarding their credentials should also be part of the dossier.
4. Special reviews of instruction: When a faculty member's instructional effectiveness is unusually distinguished and deserving of special attention in the review, particularly if research or service activities have received less attention as a consequence, a more intensive and systematic review may be required. This review should be undertaken only at the request of the faculty member involved. The department head, by mutual agreement with the faculty member, will appoint a peer committee including at least one person from outside the department. The committee will:
 - a. Look intensively at instruction outcomes and students experience after course completion. The committee must determine whether or not there exists a consistent pattern of superior performance by the faculty member's students in a variety of courses and over a period of years, and document evidence of such superior performance.
 - b. Examine instruction materials, methods and instruments of evaluation, levels of grades awarded, student evaluations, and classroom performance observed during classroom visits. These examinations should cover enough courses to evaluate the total instruction performance of the faculty member. Prior to classroom visits, committee members should familiarize themselves with course objectives, syllabi, and materials in order to determine whether they are suitable and up to date, and to judge the consistency of classroom performance with those materials.
 - c. Determine the extent of the local and national reputation of the faculty member as an instructor, dissertation or thesis director, and innovator in instruction methods and content. Because creativity and scholarship are part of teaching as they are of research, publication in the content or methodology of instruction is one indicator of instruction quality, especially for tenured faculty.
5. Three-year reviews:
 - a. Purpose: These reviews are evaluative but are primarily to make the candidate aware of progress and difficulties and provide guidance for improvement.
 - b. Contents of file: Although more limited, three-year review files should be prepared to the same standards as promotion and tenure packets. Candidates need to be aware of, and think in terms of, University standards for promotion and tenure. At a minimum, the file should contain:

- 1) The candidate's curriculum vitae, including publications in print, in press, and in preparation, specifically addressing leadership in collaborative research and the nature and magnitude of his or her own contributions, a list of grant proposals and current status, an evaluation of teaching performance, and a summary of service activities and accomplishments.
 - 2) A brief statement by the candidate of progress and prospects.
- c. Additional materials for three and four-year reviews: Departments should get a letter of evaluation from a senior colleague on campus, normally within the department. Instructions and criteria for this letter should be similar to those set out above for external evaluations requested for promotion and tenure or continuing status decisions. In most cases it is not useful to get external written opinions because the candidate is still building an outside reputation. However, if the candidate has built an outside reputation, the dossier should provide evidence of it.
 - d. Levels of review: The College of Science requires that three-year review candidates must be evaluated by the departmental standing committee, the department head, the College of Science standing committee, and the dean. The dean will notify candidates of the outcome.
 - e. Candidates disapproved for continuation: If our recruiting process is sound, candidates will almost always be continued after a three-year review. After review by the departmental committee and the department head, if a candidate will not be recommended to continue for an additional three years, a more intensive review is required. The Provost's annual memorandum on promotion and tenure or continuing status lists the requirements for such a review. The expanded dossier is then reviewed at all levels and the Provost notifies the candidate of the outcome.

E. RESPONSIBILITIES BEYOND THE DEPARTMENT

1. Responsibilities of department head: The department head shall conduct an independent evaluation of the candidate, using the departmental standing committee's report and other information available, and shall make a formal recommendation to the dean. The department head shall check for consistency with prior reviews and explicitly note any inconsistencies in the recommendation to the dean. The department head shall also inform the candidate of his or her recommendation.
 - a. Letter to candidate from department head: Following the completion of each three-year review, the department head shall inform the candidate in writing of progress, strengths, and weaknesses identified in the review process, and of additional steps the candidate must take if any such steps are required. A copy of the letter must be sent to the dean.
2. Responsibilities of College of Science standing committee: The College of Science Promotion and Tenure Committee and Promotion and Continuing Status Committee are responsible for evaluating each candidate on the basis of college and department criteria. The committee shall evaluate each candidate based on

the candidate's dossier and the recommendations of the department standing committee and the department head, and make recommendations to the dean.

3. Responsibilities of dean: The dean evaluates each candidate on the basis of the dossier and the previous recommendations. The dean's recommendation is addressed to the university committee.
 - a. Concerns about instruction quality: In any case where instruction quality is a concern to the College of Science standing committee, the dean may appoint a special review committee to review instruction quality.

F. OTHER PROMOTION ACTIONS

1. Promotion to senior lecturer: College of Science requirements for promotion to senior lecturer are:
 - a. Not less than six years' service at the time the appointment becomes effective (review during the sixth year or later).
 - b. Primary duties are instruction, with not more than one-third of duties being service activities mainly related to primary teaching duties, e.g., advising, heading a teaching program. Lecturers are not expected to have a research program but are expected to stay up with the field(s) in which they teach. Related publications or other research activity may be an indicator of staying current. Because of variations over time in service activities, decisions should be based on the period of service and not just the current year's duties.
 - c. Because research is not a factor in this type of promotion, departments must take extra care to ensure that candidates demonstrate excellence in instruction and service activities, if any. The primacy of instruction in the workload of lecturers makes it especially important that they clearly meet the criteria and that this is well documented.
2. Service Professionals: Service professionals in the College of Science are relatively rare and precisely because of this, need to be handled with extra care. The lack of precedent means that we have had difficulty getting understanding of the particular circumstances related to recruiting and promotion.
 - a. Special care must be taken in documenting the job descriptions and standards of performance for service professionals, especially in the rare case of a continuing status review.
 - b. Continuing eligible service professionals are subject to two/four or three year reviews and a sixth year status review and terminal year contract if the candidate is not promoted. Generally speaking the procedures for continuing status review are parallel to promotion and tenure.
 - c. Department promotion and tenure or continuing status standing committees should review yearly their policies and procedures as they apply to service professionals if they have people in this group. Extra efforts must be made to ensure that they are not overlooked or inappropriate standards or procedures applied.

G. PROCEDURES FOR EVALUATION OF FACULTY MEMBERS WHO PLAY A SUBSTANTIAL ROLE IN PRE-COLLEGE MATHEMATICS AND SCIENCE EDUCATION (SEPTC) (Adopted by the College of Science 7/23/92)

Promotion and Tenure cases of faculty members whose appointments carry a substantial component of responsibility for education of pre-college science and mathematics and teachers are also reviewed by the Science Education Promotion and Tenure Committee (SEPTC). The following procedures and the accompanying criteria are meant both to assure high quality scholarship and to assure faculty who choose to participate in such activities that they will be evaluated in an appropriate manner. No faculty member will be evaluated using these procedures without a written agreement between the faculty member and the department head. Department heads are expected to consult with their respective faculties before entering into such agreements.

1. Procedures: These procedures and criteria are written broadly enough so that some faculty whose primary appointment is in the College of Education may also be evaluated under them when appropriate.
 - a. A written agreement should be reached between each individual faculty member and his or her department head as to what percent of the faculty member's time is to be spent on pre-college mathematics or science education.
 - b. When the percentage agreed to in item 1 is greater than zero, and the faculty member wishes to be evaluated by the Science Education Promotion and Tenure Committee (SEPTC), appropriate papers should be submitted to SEPTC concurrently with or previous to submission of such papers to the Departmental evaluation committee. The percentage agreed to in item 1 should also be communicated to SEPTC.
 - c. SEPTC will solicit evaluations from appropriate outside and inside referees. These must include scholars in the appropriate content areas who have interest and expertise in education, and distinguished educators who have interest and expertise in the appropriate content areas.
 - d. Before making a formal report, SEPTC will meet with the faculty member to advise him or her about SEPTC's preliminary evaluation and to consult with the faculty member about possible further information and alternative actions.
 - e. SEPTC will evaluate all materials and send them, with SEPTC's recommendation, to the appropriate department head and evaluation committee. SEPTC's report will become part of the permanent record.

2. Criteria: The purpose of mathematics and science education is to improve the teaching and learning of mathematics and science. Evaluation of faculty members who play a substantial role in mathematics and science education should take into account the impact they have and, are having, and are likely to have, on the teaching and learning of mathematics and science. Both the magnitude of the impact and its direction should be considered.

Written evaluations by distinguished colleagues and others, both within and without the University, will necessarily play an important role in determining the magnitude and the quality of a professor's impact. Efforts that will be evaluated for science and mathematics education should be directed toward the systematic improvement of science and mathematics education beyond the faculty member's own classroom and advising activities. Examples of such efforts might include: scholarly works that made a contribution to improving teaching and learning, innovative textbooks that substantially impact on teaching and learning, leadership

in service activities, etc., but in all cases, the magnitude and quality of the impact is the essential issue.

Further evidence of achievement may be found in the initiation and development of educational programs, in the obtaining and managing of grant support, in service on advisory and policy boards that have substantial influence, and in other similar activities.

Traditional categories (research, teaching, service) may be inappropriate for evaluating science and mathematics educators because the lines between the categories are often blurred. If these categories are to be used, however, caution must be exercised to avoid assigning creative scholarly work to the service or teaching category (where it ordinarily receives less weight in the overall process) simply because it is different from traditional research.

- a. Research or its Creative Equivalent: The University of Arizona College of Science Guidelines for Judging Stature and Excellence in Research (Section II B 1) are appropriate for mathematics and science education, but some of the specifics may differ from more conventional evaluations within the College of Science.

Worthy contributions could include scholarly books that make a significant contribution, textbooks that are substantially different from, and better than, previous textbooks (if any) on a worthy subject, articles in refereed, respected journals that describe and advocate better practice or that present research results relating to learning science or mathematics, improved methods and instruments for evaluation, computer software, movie or television productions that enhance education, and so on.

No one person, of course, will make contributions in all of these ways, but any of these activities, and many similar ones, should be thought of as legitimate research or creative activities. The quality and impact of the work must be seen as the important issues.

Evaluation committees must consider with some care the actual origin of materials. If a textbook, for example, was designed and largely developed by employees of the publishing company, the "author" should receive little credit for it. If co-authored articles or books were written largely by the other authors, that fact should be considered. In situations where possibilities of this sort exist, the evaluation committee has an obligation to establish the nature and magnitude of the faculty member's contribution.

- b. Instruction: In addition to the University of Arizona College of Science Guidelines for Judging Stature and Excellence in Instruction (Section II B 2) special consideration will be given to the development of new and innovative courses, and to the creation of new courseware or laboratory activities that substantially enhance existing teaching practice. Unusually strong commitment to student advising (such as being a Faculty Fellow) should be taken into account. It is appropriate to consider the career outcomes of former students, and to solicit their evaluations of the faculty member.

It is also important to recognize and evaluate activities that impact the quality of science and mathematics teaching in the schools. This includes in-service training of teachers, and the development of courses or materials that substantially benefit instruction in the schools.

- c. Service: Reference the University of Arizona College of Science Guidelines for Judging Stature and Excellence in Service (Section II B 3). Because a major goal of university mathematics and science education is to improve teaching and learning in the schools, service may carry greater weight in the consideration than it does for other members of the College of Science. Such service may include scholarly contributions to professional organizations, to government and other agencies, to the University, to the College, to the Department, to local schools, etc. It may also include speeches and workshops at professional meetings, and similar activities.

There may appear to be some overlap between "research or its creative equivalent" and "service" as used here. Many of the opportunities to provide service on a national or international level may be indicators of a distinguished reputation, and therefore of high quality research and creativity. However, speaking, service, etc., should not be taken as *ipso facto* evidence of research and creativity. The research and other contributions must be considered directly, and the opportunities for service taken as only an indicator of the quality of that research and creative contribution.