DEPARTMENTAL GUIDELINES FOR ACTIONS INVOLVING REAPPOINTMENT, PROMOTION, AND TENURE

General Guidelines

In the Department of Mathematics and Statistics at American University, to qualify for reappointment, promotion, or tenure, faculty members must document effective teaching, creative scholarship, and service to the Department, the University, and professional scholarly communities. In reviewing a faculty member’s record, the Department follows the general standards, timetable, and procedures for reappointments, promotion, and tenure laid down in the Faculty Manual and supplemented by instructions from the College of Arts and Sciences and the Committee on Faculty Actions. The purpose of this document is to elaborate on the general university guidelines in the specific context of mathematics and statistics. It is intended as a reference for faculty members in the Department of Mathematics and Statistics seeking reappointment, promotion, or tenure, as well as for the Department's Rank and Tenure Committee and the Department Chair fulfilling their roles in the review of such faculty.

The Department’s role is not limited to the formal review process, but should encompass mentoring pre-tenure faculty members to build a record of teaching and scholarly excellence that will support their eventual applications for promotion and tenure.

The Rank and Tenure Committee and the Chair expect, support, and require excellence in both teaching and scholarship. A professor who fails to make a significant contribution to scholarship during the pre-tenure years will not be recommended for promotion to associate professor or tenure, whatever his or her teaching record. Similarly, without a record of excellence in teaching, scholarship will not suffice for a positive promotion or tenure recommendation.

We value high-quality grant proposals, as indicated by success in obtaining funding or by positive peer reviews. Such proposals can strengthen a faculty member’s record in scholarship, teaching, and service.
Service to the Department, the University community, and the broader professional community is expected to be an intrinsic part of a faculty member's basic obligations. Such service, however, will receive less weight than teaching or scholarship in reappointment, promotion, and tenure decisions.

**Scholarship:**

To be recommended for tenure and/or promotion, a candidate must be actively engaged in a continuing research program. The Department regards evidence of creative scholarship normally to consist of refereed articles, published books, reviews, and papers and presentations for scholarly organizations. The product of one's creative scholarly activity must be accessible to, and evaluated by, the faculty member's peers in the discipline.

Candidates for tenure and/or promotion are expected to have a rate of scholarly contribution that reflects an active, continuing, and productive engagement with their field, as evidenced by a steady output of scholarly publications, together with evidence that intellectual productivity will continue. Faculty seeking promotion to the rank of Professor should have completed major scholarly work, the quality and stature of which should be substantiated by external evaluations or major awards. They are expected to have achieved broad recognition for their contributions and to have made significant contributions to mentoring junior faculty research efforts, as needed.

The most common form of positive peer review is acceptance of an article for publication in a refereed academic journal. Expected publication rates vary widely between different areas of the mathematical sciences. In most areas, the rate of publication is typically one or more papers per year, but quality is always the primary consideration in judging research. In evaluating the strength of a faculty member’s publication record, we rely most heavily on the assessments of internationally recognized reviewers, who comment on the significance and originality of individual articles as well as the overall level of productivity. Scholarship in the mathematical sciences can also take the form of published books, but this is less common than articles and is not expected. The publication of a book, when it occurs, can be more significant than that of an article. Though less important than articles, presentations at conferences, publications in conference proceedings, or publications with broader outreach, when refereed, are also forms of peer reviewed scholarship, and contribute to an overall level of scholarly activity.

For the purposes of judging the quality of academic journals, our primary source of information is the assessment of department faculty members and outside reviewers. In the mathematical sciences, citation rates, acceptance rates, and impact factors do not provide evidence of journal quality, much less of article quality\. Our interpretation of such factors is that they may augment indications of quality of published work, but high factors are not a prerequisite for a positive evaluation of the publication record. (Nonetheless, impact factors and citation rates are reported and considered as part of a holistic review.) Authors who submit articles to top journals tend to be self-selecting, rendering the acceptance rates of such journals irrelevant.\^
This does not constitute an employment contract.

Citations of an individual article can be (but aren’t necessarily) an indicator of positive significance. However, for a highly-cited article, many of the citations will appear several years after the article itself, and thus we cannot expect the articles of an early-career academic to be highly cited.

Not all published work is refereed and not all refereed work is published. All publications will be considered for their scholarly content and potential influence on the academic community. This includes academic books, textbooks, and book chapters. Peer review of such works can take the form of published critical reviews or unpublished reviews by editorial boards, for example. Grant proposals are an example of refereed work not intended for publication. Receiving grant awards and/or reviewer comments on proposals are considered forms of peer review of scholarship. In the mathematical sciences, external funding is very scarce and difficult to obtain. Nonetheless, it is the candidate’s responsibility either to seek external funding, or to make the case that such funding is inappropriate. Whether or not it is funded, a grant proposal whose reviewers deem it worthy of funding shall be considered as positive evidence of the quality of a research program.

Peer review can also take the form of recognition for noteworthy scholarly accomplishments in the discipline. Examples include awards, invited publications and presentations, appointment to editorial boards or as a referee for academic journals, appointments to national and/or international research institutes, patents, software used by others, etc.

Once a file for action has been submitted, no more scholarly material may be placed in it. However, updates are allowed for reporting if materials already in the file have been accepted for publication, or similarly if grant proposals have been funded or have received positive reviews.

In reviewing a file for action, we will consider a candidate’s full career, emphasizing work completed while at American University. For candidates bringing substantial credit towards tenure, the balance can be adjusted accordingly.

Teaching:

The department judges teaching performance broadly. Faculty can make effective contributions by many means, including general quality of classroom instruction, supervision of student research (including master’s theses, honors capstones, independent study, and research projects), innovative teaching methods, and curriculum development. As a general rule, we ask faculty to document not only the nature of their efforts, but as far as possible, evidence of the quality of those efforts. For example, the quality of a curriculum development effort might be documented by obtaining internal or external funding, successful implementation in departmental or college programs, or peer reviewed publication of the curricular innovation. Similarly, indicators of the quality of a student research project include student publication or presentation at conferences and awards won by the student.
Even in the absence of such indicators, we consider faculty involvement in student research projects or graduate theses to be an indicator of teaching performance. More generally, dedication and investment of effort can be another significant dimension of teaching performance. For example, notable teaching efforts involving new curricula or innovative methods that promote student engagement contribute to the overall quality of a candidate’s performance in teaching, and should be documented in the file.

Regarding classroom teaching, we accept that student evaluation of teaching (SET) results can be suggestive of the level of teaching performance, but find that meaningful interpretation of these results requires consideration of all the questionnaire items, as opposed to focusing narrowly on one or two summary items. Similarly, our analysis of SET results takes into account the pattern of responses for each questionnaire item, rather than a simple average. Overall, we expect successful teachers to elicit positive responses from the preponderance of their students in the great majority of their courses.iii

There are many aspects of teaching that students are either unable to observe or unqualified to evaluate, including the selection of course materials, decisions about what topics to cover and how to present them, and defining goals of instruction. As an indicator of high quality classroom teaching, peer review by faculty colleagues is as important as SET results. Such reviews have greatest value to the Rank and Tenure Committee and Department Chair when they are based on examination of curriculum materials, formal statements of teaching approach and philosophy, in-depth discussion with the faculty member under review, and/or classroom visitation.

Review of faculty teaching performance will also take into account the candidate’s narrative statement of teaching approach and philosophy, as well as such primary documents as syllabi, assignments, and examinations. As a general rule, these documents should be included sparingly in the file, as illustrative samples of general practice or of particularly noteworthy accomplishments.

Candidates for promotion to the rank of Professor are generally expected to have demonstrated quality performance in a wide variety of courses, and should have taken a leadership role in course design, supervision of graduate and undergraduate student research, mentoring of junior faculty in all facets of their development, and other activities that support teaching.

Faculty shall provide timely, fair, and objective assessment of student performance.
Service:

Any academic institution flourishes by blending a variety of abilities, interests, and commitments. Faculty involvement in Department and/or University activities is essential, and service to the broader professional community is also desirable and valued. Ideally, a faculty member’s record will reflect a balanced range of contributions in teaching, scholarship, and service, and we generally place a higher value on teaching and scholarship than on service. In particular, the service activities of pre-tenure faculty should be subordinated to the demands for excellence in teaching and scholarship. An outstanding service record will not outweigh deficiencies in the other two areas.

To assure strong and effective faculty governance, tenured members of the faculty have a special responsibility to contribute to the health of their department, school, and university. We expect from Professors not only individual excellence in scholarship and teaching, but leadership in service that builds the collective excellence of the department, school, and university. A candidate for the rank of Professor should have a record of proven performance that demonstrates a continuing willingness and ability to provide that leadership.

Service can take a variety of forms. The general rule is that any contribution that advances the goals of the institution or the profession can be a valid service activity. In evaluating a candidate’s service record, the Rank and Tenure Committee and Chair are concerned to see a level of involvement that is consistent with good citizenship in the campus and professional communities, and evidence of effectiveness. Therefore, where possible, documentation should be provided of leadership roles, active responsibility, and tangible results produced by service activities.

Examples of different kinds of service activities are provided below. This is not intended as an exhaustive enumeration of legitimate forms of service, but rather to illustrate a few general categories.

Within the institution, service on committees is one common example. The quality of such service or the level of effort can be documented by detailing leadership roles, special responsibilities, and results produced by a committee.

There are also many other forms of service that we value, especially within the department. Some examples are contributing to the scheduling of courses or teaching assignments, involvement with student organizations and activities, organizing departmental events, and representing the department in university recruiting and showcase activities.

Departmental service in direct support of the academic program, including supervising theses and independent studies, academic advising, and applying for and/or securing funding for graduate students or undergraduate research, is also highly valued.
We recognize and value service to the broader academic community, for example editorial service, organizing conferences or sessions at conferences, service on committees and commissions, or in elected or appointed leadership roles in professional organizations. Outreach activities that promote public awareness and appreciation of the disciplines of mathematics and statistics or provide professional educational or research expertise are also valued. Notable external service activities in support of the discipline and of the university are expected of candidates for promotion to Professor.

---

1 Journal quality measures in the mathematical sciences, such as impact factors and citation indices, have been studied extensively. The definitive article on the subject, “Citation Statistics: A Report from the International Mathematical Union (IMU) in Cooperation with the International Council of Industrial and Applied Mathematics (ICIAM) and the Institute of Mathematical Statistics (IMS),” by Robert Adler, John Ewing and Peter Taylor, *Statistical Science*, Vol. 24 (1),1-14 (2009) details some of the issues for journals in our field. There are many technical issues that can affect an impact or citation index, including number of articles published, type of articles (surveys vs. tightly focused), actions by journal editors (requiring authors to add references to this journal), number of years in the window (math papers take longer to get referenced), what journals are covered by the rating agency (the most common rating company uses only 1/2 of the math journals published), etc. Whatever the merits of a citation index is for rating a journal, they say little about the quality of an individual article that appears in that journal, and even less about an individual author in a range of publications. The citation index of a journal depends heavily on the field. National studies have shown that the mathematical sciences have a citation rate less than 1/6 of the life sciences. The highly technical and specialized nature of most mathematics papers and journals puts our fields at a disadvantage on this score.

2 Acceptance rates of journals are unreliable metrics of journal quality, due to differences in the populations of contributing authors. A journal with the highest editorial standards would likely attract submissions of a much higher quality than a journal with indifferent standards. Even if the acceptance rates for two such journals were comparable, the average quality of the papers they published would not be.

3 Effective teaching is such a multi-faceted effort that single numbers, from just a few questions, cannot accurately measure, much less evaluate, an effective teacher. The Department does not endorse the evaluation of teaching effectiveness based solely or even predominantly on these numbers. If evaluations indicate widespread dissatisfaction with a course and with the professor, there is likely to be a serious teaching problem. On the other hand, no professor is likely to be able to satisfy all students, and the professor with the highest teaching evaluations may not be the best teacher. The Department values intellectually rigorous courses even if they do not achieve popularity as measured by student evaluations of teaching effectiveness. We do not find mean item response statistics and comparisons between such statistics for a particular course and an aggregate for the department or college to be very meaningful. We also recognize that common variations in student population can lead to occasional aberrant results, and that student attitudes may be less positive, on the average, for courses taken to fulfill a requirement outside their major field. Moreover, extensive studies of teaching evaluations have highlighted sources of bias such as gender, race, age, and appearance.