Tenure and Promotion Guidelines Department of Computer Science American University

Tenure-Line Faculty

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The Department of Computer Science has rigorous standards for tenure, promotion to Associate professor and promotion to Professor. The department follows the "General Criteria in Evaluation of Faculty Members" as given in the University's Faculty Manual. Specific criteria for the evaluation of Computer Science tenure and promotion actions are given below.

Scholarship

A broad, scholarly knowledge of one's field, creative work and significant scholarship are essential to the mission of the university and to effective teaching. The Department is committed to support and assist in the development of scholarly research. Though standard publication is one indicator of academic achievement, other forms of publication, specifically conference publication, and the dissemination of artifacts such as software, games, computer-based artwork, or computer chips, also transmit ideas.

In the category of scholarship, the file for action in cases of tenure, promotion to Associate Professor and/or promotion to Professor is expected to provide evidence that the faculty member is a recognized expert in their field. It is further expected that the candidate will provide evidence of a well-established scientific research program and clear trajectory for future work.

In the case of promotion to Professor, the file for action should demonstrate that the candidate has sustained a record of scholarly achievement since the previous evaluation. The candidate should also present evidence that they have attained national recognition in their field. Significant indicants of this might include honors and awards from professional organizations, appointments to editorial boards or task forces, selection for organizing committees of prestigious conferences, positions in the governance of scholarly and professional organizations, or invitations to speak at prestigious conferences.

Reviews for tenure and/or promotion will be based on the candidate's aggregate productivity and impact since degree completion, including evidence that the faculty member is productive at AU. The date of submission of the file for action to the Science Rank and Tenure Committee is the last relevant date for reporting publication of scholarship, other than updates regarding publication acceptances of materials already referenced in the file (as provided on page 2 of the CFA's "Instructions for Submitting Files for Action").

Criteria

- Publications: Peer-reviewed publications are a primary means for disseminating research results in a manner that is evaluated by other members of the scientific community. Computer science is unusual in that both standard journals, and peer-reviewed conference proceedings, are considered primary and prestigious forms of publication, with practices varying by sub-field.
 - Refereed journal articles: Journal articles are a standard form of publication across many fields. We will attend to both the number and quality of articles. Assessment of quality can be based on many indicants, but with the recognition that all of them will require contextual information for their interpretation. Some indicants assess the quality and impact of individual articles, like citations, expert testimony, reviews, and press coverage. Some indicants assess the journal of publication rather than the article in question; common ones for this purpose include journals' acceptance rates, their impact factors, and their prestige ratings (when those exist). When there are multiple authors, the role of the faculty member under review should be clarified in the file for action.
 - Refereed conference proceedings: The special article, "Best Practices Memo: Evaluating Computer Scientists and Engineers For Promotion and Tenure" (Computing Research News, 1999), emphasizes that conference presentations of peer-reviewed papers are important in computer science, a practice that is not the norm in other fields. This difference is due to the quick pace of progress in Computer Science which should be facilitated by a quicker publication system. As a result, it should be noted that conference publications are also acceptable as a record of progress for computer scientists, and in some areas are considered at least as prestigious as journals. As with journal articles, the quality of conference papers can be assessed by both indicants relating to the individual articles, and indicants of the quality of the conference proceedings.
- Artifacts: These can be items such as chips, circuits, networks, software, robots, computers, games, computer-based artwork, etc. These artifacts both embody the scholarly concept as well as measure it. Artifacts are often shared among researchers, and collegial evaluation is often the best means of assessing the artifact. Artifacts should not just be new; they should be shown to be better than what previously existed. Acceptance in juried exhibitions, festivals and associated press coverage are means by which the impact of artifacts can be assessed.
- Externally funded grants, contracts and awards: In many subdisciplines of Computer Science, external funding is important for advancing research agendas, and in all subdisciplines external proposals provide a method for demonstrating (and for allowing evaluation of) a programmatic line of future research. At the same time, funding rates in many grant programs in Computer Science are low, fundability of even high-quality research varies significantly between subdisciplines, and some research agendas have more need for expensive equipment and resources than others do. We therefore believe that all candidates in tenure and promotion actions must provide evidence of having applied to appropriate external funding opportunities

and having received competitive reviews. A successful award is of course a strong positive, but proposals that received positive reviews not chosen for funding due to strong competition in their subfield may also be submitted as evidence of positive external assessment of the candidate's research agenda.

- Books and chapters in books: Assessment of the quality of these publications can be based on many indicants, with the recognition that all of them will require contextual information for their interpretation. Citation counts (available in Scopus, Google Scholar and ISI Web of Science), when available, can provide evidence of impact in the field. We also recognize that being published by respected presses (e.g., Cambridge University Press, Oxford University Press) or prestigious series are indicants of quality. Reviews may also be valuable in assessing the quality of a book or chapter. We recognize that either authorship or editorship can be a valuable contribution to a book. Editorship and authorship of books that advance a field are viewed more favorably than textbooks or trade books that primarily summarize accomplishments in a field for a broader audience.
- Evidence of broader research impacts that reach local communities, historically marginalized groups, and/or the general public.
- Selection as a consultant or expert by external organizations for research-related projects. The quality of the outside organization and the scope of the task will be evaluated.
- Important indications of the respect afforded the faculty member by the field: These might
 include: appointments to grant review panels; connections to local research institutions and
 funding agencies; selection as a reviewer of journal manuscripts or artifacts, or as a reviewer of
 candidates for tenure/promotion at other universities; invitations to speak at other universities;
 requests to serve on PhD committees at other institutions. All candidates for tenure, promotion
 to Associate Professor and/or promotion to Professor are expected to show some evidence in
 this criterion.
- Non-refereed publications, including journal articles, technical reports, conference presentations with published abstracts, and preprints (e.g. arXiv). Similar indicants of quality as those used for peer-reviewed publications, such as citations, may be used as evidence of impact.
- Internal grants and awards.

Teaching

The quality of teaching is a primary consideration in the retention and promotion of faculty. Effective teaching includes organization, development, articulate presentation of the subject matter, the ability to motivate and involve students in the learning process, an appropriate respect for the intellectual needs of a diverse population of students, and providing timely, fair and objective assessment of student performance. Given the dynamic and fast changing nature of computer science as a discipline, the faculty member's teaching must incorporate up to date developments in the field.

Providing a stimulating atmosphere within which students can learn and grow intellectually is also a major professional contribution the faculty member should make to the development of students. This includes frequent and active presence on campus, student counseling and advising, and participation in activities that promote interaction between student life and the academic environment.

Candidates for tenure and/or promotion to Associate Professor must demonstrate that they have achieved excellence in teaching. Candidates for promotion to Professor must demonstrate a sustained record of excellence in teaching. Student Evaluations of Teaching (SET) scores are not in themselves sufficient for evaluating classroom teaching. Other modes of evaluation are also helpful in evaluating of teaching quality are needed as well and are considered equally important.

Teaching portfolio format

Faculty should assemble a teaching portfolio illustrating the depth, breadth, and quality of their teaching. A teaching portfolio is a "factual description of a professor's teaching strengths and accomplishments" and is the primary document the faculty member should use to summarize their teaching at American University. The university specifies a structure for the teaching portfolio, which includes five required categories of teaching assessment. Faculty may choose among the options in each category. Please see guidance on constructing teaching portfolios provided by <u>the Dean of Faculty</u> and <u>the Center for Teaching</u>, <u>Research & Learning (CTRL</u>).

Additional considerations

In addition to classroom teaching, faculty can include evidence of:

- Teaching outside the classroom: In addition to classroom teaching, faculty engage students in
 research and other activities, such as supervision of theses, honors capstones, independent
 study projects and organizational mentoring. The department considers both the quantity and
 quality of supervision to be highly important. Among the factors considered in the review of this
 aspect of teaching are as follows:
 - Number and level of research supervisees
 - o Number and quality of publications and conference presentations with students
 - Funding for student research acquired
- Activities to assure diversity, equity, and inclusion in the department's teaching
- Teaching awards
- New course development or significant course revision
- Development and revision of degree programs
- Coordination of multi-section courses or suites of courses
- Mentoring students towards successful degree completion (course choices, retention, etc.)
- Use of innovative technologies and pedagogical strategies
- Educational outreach to local communities and/or the general public
- Consulting for other faculty, presenting at teaching conferences, publishing teaching techniques
- Selection as a consultant or expert by external organizations for teaching-related projects

Service

Candidates for tenure or promotion must show evidence of service to the Department, the College and the University. Since this is the least important of the three evaluation categories, pre-tenured faculty should have the lowest service loads in the department. The service requirements for promotion to the rank of Professor will exceed those needed to achieve tenure, and evidence of a wider range of primary criteria will be expected at the time of evaluation.

Criteria

- Chair of department committees
- Director of program or chair of department
- Leadership on College or University committees
- Serving in roles to improve experience and success of the first-generation and/or underrepresented student population
- Mentoring of junior faculty
- Leadership in outside professional organizations and professional societies
- Organization of scientific conferences
- Active participation on Department committees
- Active participation in College and University committees
- Active involvement in professional societies
- Recruitment and development at departmental, College and University levels
- Activities to address diversity, equity, and inclusion at the departmental, College and University levels
- Service to government and nonprofit agencies and organizations on scientific matters
- The conduct of seminars, colloquia, or other department events

Merit Review

These criteria may also be used as the basis for annual merit review scores by the Rank and Tenure Committee and the Chair.