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Department of Computer Science Criteria for Tenure and Promotion and Post-Professorial Merit

Introduction

The Department of Computer Science presents in this document: (1) a format for the preparation of the candidate's Record of Service and (2) criteria for the candidate's evaluation. The purposes of this document are to help the candidate gather data and prepare their record of service, and to assist departmental, college, and university committees and administrators in evaluating the candidate's record of service.

These criteria have been developed in accordance with university promotion and tenure policies. In fulfilling the goals and objectives of the Harrison College of Business and Computing and the Department of Computer Science, several items of evidence are routinely collected as part of operating procedure for the following three categories: Teaching Effectiveness; Professional Growth; and Service .

It is important that the candidate recognizes the fact that recommendations pertaining to tenure and promotion in academic rank are based on qualitative judgments concerning the evidence presented by the candidate using the departmental Record of Service format. The committees and administrators *qualitatively evaluate* the items of evidence provided for each category for their relevance towards *significant and sustained achievement* and express their judgments using the terms **Outstanding, Superior, and Good**. The detailed criteria outlined in the document are the minimum required for promotion.

Definitions

Review Period: The **review period** is at least the required minimum number of years in rank immediately preceding candidacy. Candidates who are in rank for more than the minimum number of years may choose to include any items of evidence produced during the time in rank.

Instructional: inclusive descriptor related to teaching, such as techniques in classroom presentation, curriculum, course development, and course materials development.

Refereed: descriptor of the process in which manuscripts, articles, papers, conference proposals, conference presentations, workshops, etc. are subjected to peer review for content, appropriateness, style, etc. Synonyms include the terms **peer-reviewed** and **juried**.

Publication: Dissemination via some public forum, such as refereed conference/journal, transactions, or proceedings in printed or electronic form. Some publications – such as, book reviews, reviews of refereed publications, or technical reports – are also considered here which may or may not have been refereed.

Item: An **item** is a type of evaluative evidence. Example: a *published refereed paper*.

Instance: An **instance** of an item refers to one or more occurrences of that item, which as a whole make the evidence substantial. Normally, a refereed publication of a paper is an **instance** of *published refereed article*, whereas *three published book reviews* may constitute a single instance of *published review of books*.

Significance: Two aspects are used in measuring significance of an achievement: the type of evidence (item) and the characteristics of the specific instance of evidence: The **significance** of an achievement is represented by its place in one of three clusters of excellence-levels of increasing recognition: Level A, Level B, and Level C. Items of evidence resulting from essential activities that are expected of every candidate for promotion are in Level A. Levels B and C enumerate additional items from which the candidate may select for demonstrating significant achievements. An item's relative value, its range of impact, and its success/failure status determine its specific placement in B or C. The candidate, in order to indicate the **significance** of an instance of evidence, will indicate its relevance, level of recognition, benefits, and other descriptions as appropriate. The above is an interpretation of *significance* (not a definition).

Effective: Effective means achieving attainable outcomes in teaching, research or practice in scholarship, and/or service.

Consistently: Consistently means sustained over a majority of candidate's review period.

Academic Preparation Required for Academic Ranks

Refer to the Faculty Handbook for the required academic preparation.

Requirements and Ratings Needed for Tenure & Promotion and Post-Professorial Merit

Associate Professor. Final evaluation of the faculty member's performance must result in a rating of Superior or above for Teaching, Professional Growth, and Service.

Professor. Final evaluation of the faculty member's performance must result in a rating of Outstanding in one category and Superior or above in the other two.

Post-Professorial Merit. Refer to the Faculty Handbook.

Criteria for Each of the Categories

The activities that are required to produce the various evidentiary items are listed for each of the three levels under each category. A candidate may not count the same activity in multiple categories. These lists are intended as a guide to assist candidates in planning their activities and reviewers in evaluating tenure and promotion documents. Since it is impossible to anticipate every kind of achievement in a field that changes quickly, candidates may include other activities and related evidence not specifically mentioned in this document but must present a convincing argument that these items are of equivalent significance to those listed.

Criteria for the three levels of performance are stated at the end of each category. The number of evidentiary items and instances listed are the minimums needed for consideration at each performance level in each category.

I. Teaching Effectiveness.

Criteria for Teaching Effectiveness

For teaching effectiveness, faculty members will be evaluated on the basis of their performance in teaching and their contributions to the development and maintenance of high quality curricula. Evidentiary items for evaluating *teaching effectiveness* are grouped under three levels of increasing recognition. Candidates may include other evidentiary items in teaching effectiveness not specifically mentioned in any level. However, the onus is on the candidate to justify their inclusion.

Note: Teaching effectiveness is the most important criterion in the overall evaluation of a faculty member, and is also the most difficult to evaluate. For this reason, such evidence might include, for example, student learning such as pre- and post-tests and samples of student work, peer observations, student ratings, and testimonials from current or former students. Since student ratings are influenced by many non-academic variables, their ratings should never be used as the sole measurement of teaching performance.

Evaluative Evidence of Teaching Effectiveness

A. Level A

1. The candidate is required to list all courses taught during the evaluation period, including delivery format, enrollment number and number of credits hours.
2. Provide evidence of effective instruction, such as evaluation from students, peers, or self-evaluation.
3. Performing department-assigned academic and career advising of students.

B. Level B

1. Provide evidence of consistently above average instruction, such as evaluation from students, peers, or self-evaluation.
2. Supervise independent studies and/or student research.
3. Make major improvements to course content, materials or delivery methods.
4. Participate actively in overall curriculum design or re-design.
5. Share expertise and course material with departmental or professional peers.
6. Attend or participate in activities that contribute to improved teaching, for example, attend instructional workshops.
7. Receive an internal instructional grant or submit an external instructional grant.
8. Carry out a detailed review of a book used or intended for instructional purposes that is under revision/development.
9. Make a presentation at a professional conference on an instructional topic.
10. Teach a new course that has not previously been taught by the candidate.
11. Justify other comparable indicators of *teaching effectiveness* at this level.

C. Level C

1. Develop, successfully propose, and teach a completely new course.
2. Develop tools such as a comprehensive lab manual and/or noteworthy software package for use in the curriculum.
3. Receive an external instructional grant.
4. Publish refereed instructional material or a refereed instructional article.
5. Conduct a teaching tutorial, seminar, or workshop at a local or national meeting.
6. Justify other comparable indicators of *teaching effectiveness* at this level.

Performance Levels for Teaching

Outstanding. In order for teaching to be rated as outstanding, the candidate must provide supporting evidence for all of A throughout the review period, plus evidence of ten instances belonging to four or more different items from B and/or C, at least one of which is from C.

Superior. In order for teaching to be rated as superior, the candidate must provide supporting evidence for all of A throughout the review period, plus eight instances belonging to four different items from B and/or C.

Good. In order for teaching to be rated as good, the candidate must provide supporting evidence for all of A throughout the review period.

II. Professional Growth

Criteria for Professional Growth

Faculty members will be evaluated on the basis of maintaining currency in the discipline and contributions to the discipline. The discipline here refers to the discipline of Computer Science, Computer Information Systems and closely related areas as they may evolve. Contributions to the discipline may range from theoretical results through practical products and may be presented as journal articles, reports in proceedings, or as downloadable software products. It is suggested that the candidates indicate briefly their specific contributions in multi-authored evidence. A quote from the Computing Research Association in the 1999 publication¹, *Best Practices Memo: Evaluating Computer Scientists and Engineers for Promotion and Tenure* discusses the forms of professional contributions more extensively. Based on the *Best Practices Memo*, reports in proceedings of meetings or distributed software products can be of equivalent stature to journal articles as evidence of professional growth in the computing disciplines. Examples of evidence for evaluating *professional growth* are grouped under three levels of increasing recognition. Candidates may include other evidentiary items in professional growth not specifically mentioned in any level. However, the onus is on the candidate to justify their inclusion.

Evaluative Evidence of Professional Growth

A. Level A

Carry out professional growth activities expected of all candidates. Such activities include:

1. Remaining professionally engaged through scholarly activities such as attending discipline related conferences, conducting research, publish a non-refereed article, etc.
2. Being a member of a discipline-related professional organization at the local, national, or international level.

¹ “Computer science and engineering is a synthetic field in which creating something new is only part of the problem; the creation must also be shown to be “better.” Though standard publication is one indicator of academic achievement, other forms of publication, specifically conference publication, and the dissemination of artifacts also transmit ideas. Conference publication is both rigorous and prestigious. Assessing artifacts requires evaluation from knowledgeable peers.” Approved by the Computing Research Association, Board of Directors, August 1999 Prepared by: David Patterson (University of California, Berkeley), Lawrence Snyder (University of Washington) and Jeffrey Ullman (Stanford University). For the complete article (which is copyrighted) see http://www.cra.org/reports/tenure_review.html

B. Level B

1. Present a paper or a poster at a professional meeting (beyond the local level).
2. Publish reviews of books or journal articles.
3. Contribute a chapter to a discipline-related book.
4. Receive an internal grant or submit an external grant proposal.
5. Review proposals for a granting agency or manuscripts for a journal, or a conference, etc.
6. Perform sponsored research at a company, research lab, university, institution, or other entity.
7. Participate as a member of a panel on a discipline related topic at a professional meeting.
8. Participate in a major workshop or short course.
9. Justify other comparable indicators of *professional growth* at this level.

C. Level C

1. Publish a refereed article.
2. Publish a discipline-related book, or develop tools such as a comprehensive lab manual and/or noteworthy software package for use in the curriculum.
3. Receive an external grant.
4. Conduct a tutorial, seminar, or workshop on a discipline-related topic at a professional conference.
5. Perform major editorial functions for a journal or symposium/conference proceedings, etc.
6. Perform professional consulting or disseminate software for use by others. The value of these results must be justified.
7. Secure a patent.

8. Justify other comparable indicators of *professional growth* at this level.

Performance Levels for Professional Growth

Outstanding. In order for Professional Growth to be rated as outstanding, the candidate must provide supportive evidence for all of A throughout the review period, plus evidence of eight instances belonging to three or more different items from B and/C, with at least three instances from C1.

Superior. In order for Professional Growth to be rated as superior, the candidate must provide supportive evidence for all of A throughout the review period, plus evidence of six instances belonging to two or more different items from B and/or C, with at least two instances from C1.

Good. In order for Professional Growth to be rated as good, the candidate must provide supportive evidence for all of A throughout the review period.

III. Service

Criteria for Service

Faculty members will be evaluated on the basis of service to students, service to the College and the University, service to professional bodies, and professional service to society or the community. Examples of evidence for evaluating *service* are grouped under three levels of increasing recognition. Candidates may include other evidentiary items in service not specifically mentioned in any level. However, the onus is on the candidate to justify their inclusion.

Evaluative Evidence for Service

A. Level A

Carry out service activities expected of all candidates. Such activities include:

1. Participating actively in departmental decision-making.
2. Participating in events that involve interaction with prospective students. This may be done, for example, by participating in Show Me Days, First Steps, and in meeting with prospective students when they visit campus.

B. Level B

1. Serving as an academic advisor for more than 40 students
2. Serve on department-level committees.
3. Serve on a college or university-level committee.
4. Provide support to students seeking internships, jobs, or graduate school opportunities, for example, by writing suitable reference letters.
5. Provide support for student activities, for example, by serving as an advisor or sponsor to a student organization, by leading extra-curricular field trips, or by coaching student teams in competitions.
6. Carry out *ad hoc* extra-departmental assignments such as serving as committee member for graduate students earning degrees in other departments and volunteering for University Foundation activities.
7. Provide professionally related service to the community such as classroom presentations, science fair or programming contest judging, career/college day presentations, or serving on advisory boards.
8. Provide service to the discipline, such as chairing a session or conducting a session at a professional meeting, refereeing manuscripts, or serving on a professional committee or task force.
9. Justify other comparable indicators of *service* at this level.

C. Level C

1. Serve as chair of a department-level committee.
2. Serve as chair of a college or university-level committee.
3. Provide service to a discipline-related organization or a higher education professional organization, such as holding office in a professional body, or participating actively in the organization of a workshop or conference.
4. Achieve mutually beneficial academic-industrial cooperation.

5. Provide voluntary professional service to the public, such as a non-profit organization.
6. Justify other comparable indicators of *service* at this level.

Performance Levels for Service

Outstanding. In order for Service to be rated as outstanding, the candidate must provide supportive evidence for all of A throughout the review period, plus eight instances belonging to four or more different items from B and/or C, including one from C and one that indicates service beyond college level.

Superior. In order for Service to be rated as superior, the candidate must provide supportive evidence for all of A throughout the review period, plus evidence of six instances belonging to three or more different items from B and/or C, including one that indicates service beyond the departmental level.

Good. In order for Service to be rated as good, the candidate must provide supportive evidence for all of A throughout the review period.