

## Department of Computer Engineering and Computer Science RTP Document

### INTRODUCTION

This document describes retention, tenure and promotion policies that pertain directly to the Department of Computer Engineering and Computer Science. Some issues regarding instruction, scholarly and creative activity and service are unique to this field. The rapid rate of change in technology is the principal reason for this difference. Few departments outside the College of Engineering face the same magnitude of technological change. The fact that this department resides in a large comprehensive university also affects the way in which professional responsibilities are defined for faculty in the discipline.

This document will expand the concept of instructional preparation and scholarly activity in a way that recognizes the time and effort involved in learning new technology. It recognizes the demands and impact that a large teaching load has on a technological department. It also describes some specific forms of university and community service that promote the use of computer technology across the campus and the community.

In almost all cases the university document is adequate. Hence, this policy statement will not be long. Only sections pertaining to criteria for evaluating the candidates will be expanded. The candidate must refer to the university or college documents whenever this document is silent on a matter.

### CRITERIA

#### Instruction and Instruction-Related Activities

**Essential Criteria:** In addition to the four essential criteria given in the university document, the CECS department adds a fifth:

(5) Ongoing development in information technology.

In CECS all candidates must be prepared to teach the use and application of modern hardware and/or software systems in a laboratory setting. All candidates should be prepared to create a hands-on learning environment for their students.

**Enhancing Criteria:** Candidates may enhance their instructional strengths in information technology in many ways. Faculty may develop lecture notes, handouts, slides, user groups, web sites and other aids to teach how to use hardware and software. They may develop teaching and recitation strategies which aid hands-on learning in a hardware or software laboratory. Faculty may also develop innovative techniques for grading and testing in a lab environment. Integration of technology into the learning environment can also be used to enhance instruction. Offering directed studies relating to new computer technology also demonstrates enhanced technological competence in teaching.

#### Scholarly and Creative Activities

The criteria given here are additions to the university document. The department encourages traditional forms of scholarly and creative activities such as journal articles, conference presentations, etc. We also recognize that the pressure of learning new technology in the context of a large teaching load, requires additions to the list of acceptable activities. Faculty who pursue a traditional path of publication will be recognized and rewarded for their work. In addition, faculty who significantly improve the environment for learning new computer technology will also be recognized and rewarded. This will occur even if their contribution is

published or reviewed in a non-traditional mode. Electronic media is an acceptable form of publication. Peer review may occur before or after publication. The department or candidate may seek external reviewers for creative works that are not refereed. This procedure must be conducted in compliance with the guidelines described in the university document.

**Essential Criteria:** In addition to the criteria outlined by the university document, candidates in Computer Engineering and Computer Science must keep up with the changes in hardware and/or software as this relates to their field. Candidates may demonstrate currency by successfully developing and/or teaching curriculum using current technology. This may also be demonstrated by writing articles, reviews, manuals, handouts and notes. External peer review is not required for these contributions.

**Enhancing Criteria:** The following are examples of enhanced scholarly and creative activities that relate to computer technology. Peer-reviewed articles, reviews, manuals, handouts and notes which address new hardware and/or software are enhanced scholarly and creative activities. Implementation of new hardware or software also counts as enhancement. Such contributions include information system technology, client-server systems, database design, programming languages and operating systems, windows, graphical user interfaces and visual programming, computer networks, telecommunication systems and object-oriented technologies. Development of curriculum that introduces new hardware or software into the undergraduate or graduate program is considered enhanced scholarly and creative activity.

## **Service**

Candidates in computer engineering and computer science are encouraged to spread the use of computer technology throughout the university and community. Therefore, in addition to the standard areas of university and community service, the department recognizes technological assistance given to university and community organizations as a unique and important service contribution. Any faculty member who develops software or hardware, directs student interns, gives technical advice or donates expertise to develop technology for university or community organizations has made a service contribution to the affected organization. Sometimes professional consultations may also count as service. However, in these cases the consultation involved must clearly relate to the mission of the department.

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