

## **Statement of Significant Scholarly / Artistic Work** **Department of Mathematics, Statistics, and Computer Science**

### **Introduction**

The Department of Mathematics, Statistics, and Computer Science (MSCS) highly values scholarly work by our faculty members. As described in the St. Olaf Faculty Manual, “Through such work, faculty members sustain their own intellectual and artistic vitality, exemplify a life of creative inquiry for students, enhance their capacity for effective instruction, enrich the intellectual and artistic lives of their colleagues, and expand human knowledge and imagination.” Thus, we expect our faculty to be engaged scholars, connected to their profession, and active in a sustainable scholarly program. As part of their performance review, faculty members must demonstrate evidence of clear positioning and consistent engagement in their scholarly discipline.

We take an expansive view of what constitutes scholarly work. Whatever the form this scholarship takes, however, its essential characteristics are that:

- it is subjected to review by one’s academic peers, and
- it uses the specialized knowledge, expertise, and training of our disciplines.

Faculty scholarship should include activities, such as publications and presentations, that are *public* and *peer-reviewed*. This is the highest standard by which mathematicians, statisticians, data scientists, and computer scientists are evaluated. A portion of the faculty member’s scholarship must result in professional assessment by disciplinary peers.

Moreover, the MSCS Department strongly values *undergraduate research* as scholarly work. Engaging students in their own research stimulates their interest in the MSCS disciplines, provides a culminating academic experience, and prepares them for careers and graduate studies. We encourage MSCS faculty to support undergraduate research, especially through activities that result in public and peer-reviewed disseminations.

### **Determination of Significance**

**Scholarly work:** The significance of scholarly work is determined by various factors. These include, but are not limited to, the extent of peer-review required for dissemination, the academic prestige of the sponsoring institution (such as publisher or grant funding agency), the degree to which a journal is read (for a publication), honors or awards received for the activity, and other indicators of importance in the discipline.

**Collaboration:** Collaborative work is not assumed to be less significant than work prepared by a single author. The significance of a faculty member’s contribution to a specific collaboration

depends on the nature of that contribution. Also, the manner in which co-authorship is handled (e.g., authors are listed alphabetically in some disciplines) should be taken into account.

**Undergraduate research:** The significance of a faculty member's role in undergraduate research depends on both the type of dissemination and the degree of collaboration or mentorship. For example, peer-reviewed published papers are valued more than posters.

### **Types of Scholarly Work**

The following list illustrates, but does not exhaust, the range of scholarly work that we consider appropriate and worthwhile. There are three categories: peer-reviewed scholarship is the most significant, followed by undergraduate research, then other forms of scholarly work.

We recognize that the relative values of these items are context dependent, and may differ among the MSCS disciplines, as well as among individual faculty members. Thus, this list should not be interpreted as a strict counting scheme or checklist, but rather as a guideline that allows for consideration of the relative values of items in a faculty member's scholarly portfolio.

**Peer-Reviewed Scholarship:** The following items have a comparable level of significance.

- Peer-reviewed article in a professional scholarly journal **accepted**.
  - This may include a conference proceedings article with a comparable peer-review.
- Peer-reviewed textbook **published**.
- External grant proposal **awarded**.
- Invited keynote / plenary presentation at a professional scholarly venue **completed**.

**Undergraduate Research (UGR):** The ordering below generally reflects *decreasing* significance.

- Peer-reviewed article in an undergraduate research journal **accepted**.
  - This may include a conference proceedings article with a comparable peer-review.
- Another form of UGR dissemination **completed** (e.g., poster presentation). ●
- Supervision of UGR **completed**.

**Other Forms of Scholarly Work:** The relative significance of these items is context-dependent.

- External grant proposal **submitted**.
- Chapter in a peer-reviewed textbook **contributed**.
- Software developed and **publicly disseminated**.
- Presentation at a professional scholarly venue **completed**.
  - Examples include, but are not limited to, contributed conference talk, invited paper session presentation, and workshop / panel/ poster presentation.

- Educational resources developed and **publicly disseminated**.
- Consulting with an industry partner **completed**.

## Expectations for Accomplishment

Below, we articulate how faculty members demonstrate evidence of clear positioning and consistent engagement in their scholarly discipline. Our expectations for scholarly work at various ranks differ by degree of accomplishment and scope of influence. We strive to be as explicit as possible, in order to provide a clear understanding of our department's expectations.

### Important remarks:

- When evaluating faculty scholarship, both context and quality should be considered. Hence, this document is *not* to be interpreted as a strict counting scheme or checklist. ● The scholarly works refer to those for which a significant amount of the work was done *after* the faculty member arrived at St. Olaf College.
  - One accepted peer-reviewed article based on the candidate's post-PhD work may count toward pre-tenure scholarship, even if a significant amount of that work was completed before arriving at St. Olaf, provided the work occurred within 2 years prior to arrival.<sup>1</sup>
- We expect faculty members to demonstrate a continued trajectory and engagement with scholarship throughout their careers.

1. **Assistant Professor at the comprehensive review preceding the tenure review:** By the time of a faculty member's second comprehensive review (or equivalent), we expect scholarly accomplishment beyond the dissertation and progress towards the rank of Associate Professor. This accomplishment is part of a scholarly career trajectory and must give evidence of peer-reviewed dissemination.

A typical candidate has evidence of current scholarly engagement and four or more [scholarly items](#), including:

- One or more peer-reviewed articles in a professional scholarly journal **accepted**.
- One or more student research projects **supervised**.<sup>2</sup>

2. **Associate Professor:** By the time a faculty member is reviewed for tenure, we expect a record of accomplishments having an impact beyond St. Olaf, with the promise of continued accomplishments and the potential for broader impact. **The items below refer to pre-tenure items, including those that were part of a faculty member's scholarly portfolio for their second comprehensive review.**

<sup>1</sup>This allows candidates, particularly those who claim credit for prior service, to demonstrate that they have begun a sustainable scholarship program, even if that started outside of St. Olaf.

<sup>2</sup>This may include Directed Undergraduate Research (DUR) or the Center for Interdisciplinary Research (CIR).

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A typical candidate has evidence of current scholarly engagement and six or more [scholarly items](#), including:

- Two or more peer-reviewed articles in a professional scholarly journal **accepted**.
- Two or more student research projects **supervised**.

3. **Professor:** By the time a faculty member is reviewed for promotion to Professor, we expect a substantial record of scholarly accomplishments and a recognized scholarly presence among peers in one's disciplinary community, and evidence of an ongoing scholarly program. **The items below refer to *post-tenure* items and must be completed recently, i.e., typically within 6 years before a faculty member is reviewed for promotion.**

A typical candidate has evidence of current scholarly engagement and six or more new [scholarly items](#), including:

- Two or more peer-reviewed articles in a professional scholarly journal **accepted**.
- Two or more student research projects **supervised**.

Of course, we expect that a faculty member continues to engage in productive scholarship *after* being promoted to Professor.

