

Scholarship Requirements

Department of Computer Science

Lafayette College

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Introduction

This document is an expansion of the scholarship requirements in Section 4.2.2 of the Lafayette Faculty Handbook (p29 2021-22). The purpose is to explicate the requirements in the context of the discipline-specific criteria of the Department of Computer Science at Lafayette. This document will be part of the information the Promotion, Tenure and Review Committee will use when determining qualifications for tenure and promotion.

Conference proceedings are generally the most common form of publication in the field of computer science, especially in experimental sub-fields. This is not true for the theoretical subfields which more commonly resemble the field of mathematics, where most of the publications occur in journals and in addition have many authors collaborate on each publication. This practice is confirmed by the best practices memorandum published by the Computing Research Association (CRA)[1].

However, some of the circumstances have changed somewhat since the publication of the memorandum. In conference proceedings the common practice was for all submissions to be full-length papers, ranging from 5 to 8 or more pages in length (e.g., two column, single spaced). These papers were then reviewed (sometimes blind reviews were used) by at least three or four reviewers. The reviews were then collected by the program committee who then decided on the acceptance or rejection of submissions. Authors were then informed as to whether their papers had been accepted or rejected along with the reviews. Accepted papers were published in the conference proceedings and were presented at a session during the conference. Authors of rejected papers could choose to use the reviews to revise their papers and submit to other conferences. Submissions for posters were considered separately and they were usually much shorter papers (2-3 pages). In this model, papers were accepted for poster presentation when the papers described interesting research and one of the following was true - (1) the work was not sufficiently mature and more work was required, (2) the work was an incremental extension of existing research, or (3) there were several other papers in the same area that had higher reviews.

While many conferences follow the traditional model described above, many have also expanded to include poster sessions as part of their main program. Submissions are still full-length and reviewed by three or four reviewers. The program committee now determines if a submission should be (1) accepted for oral presentation, (2) accepted for poster presentation, or (3) rejected. Some conferences only have poster presentations while others have a mix. The acceptance rate of submissions for some conferences only counts papers that are accepted in Category (1), i.e., papers that are accepted for oral presentation. Candidates are encouraged to provide information about the processes used by the

program committees of the conferences where their papers are published, particularly if the process used by the publication venue differs substantially from the common practice.

Collaboration and Student Involvement

Computer science is a collaborative and often cross-disciplinary field. Candidates are encouraged, though not required, to collaborate with other scholars within and outside of the field. Work resulting from collaboration is considered, however, candidates should carefully articulate their individual contributions to any joint work.

Scholarly work that involves Lafayette students in a meaningful way is particularly valued. The Department recognizes that such involvement represents a significant investment of time and effort, and may result in reduced productivity. However, such involvement is of tremendous educational value to the students, and is central to the mission of the Department and to the College as a whole. At the same time, qualified students are not always available, and not all fields are equally amenable to undergraduate student involvement, so there is no fixed expectation of student involvement. Similarly, not all work with students should result in peer-reviewed publication. Scholarly work whose main goal is to give students interesting and valuable research experience is worthwhile, but need not be a faculty member's only scholarship. In conclusion, faculty should explicitly discuss any student involvement in their work.

Scholarship Record

It is normally expected that candidates have, on average, one peer-reviewed journal or peer-reviewed conference publication per year. In addition, external grants received and books' chapters are considered at the same tier as peer-reviewed journal and conference publication. Nevertheless, candidates must demonstrate development, accomplishment, and promise through the quality of their publication record. Scholarly accomplishment could be demonstrated by the quality of the venues in which the candidate's work appears or the impact it has on the research community (e.g., number of references, impact factor, acceptance rate, etc). Moreover, other research activities as described below can provide evidence of scholarly promise, these additional activities include, but are not limited to:

1. Publications accepted but not yet in print in peer-reviewed conferences or journals.
2. Posters presented at conferences with full paper submissions and peer review.
3. Publications, including those accepted but not yet in print, in workshops.
4. Posters presented at conferences with submissions of abstracts only.
5. Publicly available software development or datasets related to teaching or research.
6. Invited talks at national or regional conferences; talks at other colleges or universities.
7. Works in progress that have not been submitted.

The Department's assessment of scholarship will concentrate largely on work done since coming to Lafayette. In evaluating scholarly activities for tenure, the Department expects candidates to be practicing computer scientists. In other words, the topic of their primary scholarship should be a recognizable subfield of the discipline of computer science. Candidates whose work is interdisciplinary are encouraged to consult with The Department to define how their scholarship makes

a contribution to the field of Computer Science. The scholarly record should demonstrate a coherent and ongoing research program.

Following Computer Research Association [2] suggestions, the Department will give consideration to the quality and impact of the work produced by the candidate. We recognize that acceptable scholarship might take many forms and can differ between subfields. Hence, the candidate should articulate and provide evidence to support the quality and impact of their work. Scholarly work that involves Lafayette students in a meaningful way is particularly valued.

Finally, we recognize the importance of Computer Science Education Research as supported by the following CRA's report: [Why CS Departments Should Embrace Computing Education Research](#). Scholarly endeavors in CS Education are regarded by the department as a subfield of CS research which can help support a candidate's broader CS scholarly work portfolio.¹

References

- [1] PATTERSON, D., SNYDER, L. , AND ULLMAN, J. Evaluating computer scientists and engineers for promotion and tenure. <https://cra.org/resources/best-practice-memos/evaluating-computer-scientists-and-engineers-for-promotion-and-tenure/>
- [2] Friedman, B., & Schneider, F. B. (2015). Incentivizing quality and impact: evaluating scholarship in hiring, tenure, and promotion. *Computing Research Association Best Practices Memo*. https://cra.org/wp-content/uploads/2016/02/BP_Memo.pdf

Appendix: Covid-19 Disruption

The Department recognizes that the disruptions caused by the Covid-19 pandemic will significantly affect scholarly activities and productivity during the pandemic and for some amount of time after normal College operations resume. Faculty are also affected by the additional time and effort required for teaching during this period. Some faculty may have unanticipated personal burdens imposed on them as well. The Department will consider these impacts during its reviews of scholarship records and encourage faculty to provide explanations of Covid-19 impact. It is important to note that some faculty may have unanticipated personal burdens imposed on them as well, and if it feels relevant they are encouraged to discuss these concerns with the Department Head, but they do not need to provide this information within the file. The Department Head can confirm in the letter to PTR that there were extraordinary personal issues faced by the candidate that the DRC took into consideration when reviewing the file.

¹ Paragraph adapted from: <https://www.swarthmore.edu/computer-science/cs-department-tenure-guidelines>