Statement on Significant Scholarly/Artistic Work
Physics Department, St. Olaf College

Types of Scholarly and Artistic Work

Original research: The most traditional type of scholarly work in the sciences is original research leading to publication of results in peer-reviewed professional journals. Other valued modes of original research dissemination include presentation of work at professional meetings and delivering seminars at other institutions. Mentoring undergraduates in summer or academic year research, and helping them to disseminate their work, is particularly valued. Collaborative research with other scientists, at St. Olaf or elsewhere, and joint publication of results are encouraged.

Grant seeking: Grant seeking is integral to the culture of scientific scholarship for two reasons. First, funding can be critical for fully realizing a faculty member's research program. In addition, the process of grant writing itself is valuable, independent of whether proposals are successfully funded, because it clarifies and refines a faculty member's research program. The Physics department recognizes that the degree of difficulty in securing external funding varies according to field of study and that some kinds of scholarly work can be successfully pursued without any significant need for funding, one example being work that is theoretical in nature.

Curriculum development: An area of professional activity in which teaching and scholarly work can overlap is the development or modernization of courses, experiments or teaching techniques. To be understood as scholarly work for the purposes of review for tenure and/or promotion, such activity should result in public dissemination or garner external funding.

Science citizenship: The Physics Department values a range of scholarly activities generally related to our roles as scientists, such as service within a scholarly society and peer review of manuscripts, external grants or external tenure cases. The department recognizes the importance of continued engagement in one's discipline and the establishment of a professional network. These are fostered by regular attendance at professional meetings, visits or consulting work with scientific or industrial research groups, or similar activities.

Determination of Significance

Original research: Publication of articles in peer-reviewed journals is a clear indicator of significant professional activity. The timing and quantity of publications to be expected depends on the type of research program being pursued. For example, it is generally recognized that a significant new venture may require a substantial investment of time before yielding publishable results. Presentation of new results at professional meetings is an important indication that research work is ongoing and of interest to the larger community. The most significant meetings are national or international symposia where submitted abstracts must be accepted through a process of peer-review. In most cases such a presentation or a combination of such presentations could be expected to lead to a peer-reviewed publication. Presentation of an invited lecture at a professional meeting, as opposed to a contributed talk or poster, is usually a more significant activity that indicates an individual's work over a period of years is widely recognized in the profession. Presentation of research results at the invitation of academic, government, or industrial institutions is also considered significant scholarly dissemination.

Grant seeking: Funding awarded by external agencies in a peer-reviewed process confirms that the proposed research is valued by the profession. In terms of significance, the Physics Department considers the awarding of a noteworthy external grant, such as a competitive grant from the NSF, NIH or other national organization, to be the equivalent of a high-quality peer-reviewed publication.

Curriculum Development / Scholarship of teaching: The Physics department values a range of activities in the area of curriculum development / scholarship of teaching. To be understood as scholarly work for the purposes of review for tenure and/or promotion, such activity should result in public dissemination or garner external funding. Examples include developing a new laboratory experiment or an approach to integrating research experiences into the academic-year curriculum, followed by presentation of this work at a conference or publication in a journal. Authoring a textbook or creating and disseminating new teaching resources are some other examples in this area.

Science Citizenship: Science citizenship is another important area of scholarly work that includes activities such as holding office in professional societies, chairing sessions at professional meetings, participating in review panels (for example: National Science Foundation, external department evaluations, or professional organizations), reviewing manuscripts for publication, writing book reviews, consulting, testifying before legislative bodies, or offering summer short courses or workshops. Presentation of scientific topics, or issues growing out of the application of science, to departmental or general audiences is also encouraged and recognized as valid scholarly work.

Faculty achievement in the above areas indicates significant scholarly work. However, our students' success is also a measure of faculty professional productivity. For example, while research per se and the advancement in scientific understanding it brings is valued, our departmental mission to promote the learning and professional development of our students places greatest value on research that actively involves St. Olaf students. As another example, scholarship of teaching and learning is valued both for its pedagogical advancement as well as for its impact on students.

It should be noted that scholarly work in physics and other scientific fields is often collaborative. Faculty members are encouraged to develop productive collaborations with colleagues, whether at St. Olaf or elsewhere. Scholarly work done in collaboration with students and/or colleagues is equally significant to work done by an individual.

Expectations for Professional Accomplishment

It is important to establish the context for scientific scholarship at St. Olaf College, as a selective undergraduate liberal arts institution. For faculty with a full teaching load, the Physics department consider the norm for time spent on scholarly activity per year to be the equivalent of about two-and-a-half months full-time. There are no graduate students to assist with research at St. Olaf, and postdoctoral fellows are quite rare. Expectations for the extent of scholarly work should be calibrated to this institutional context.

For an Assistant Professor at the comprehensive review preceding the tenure review (normally in the fourth year): demonstrated progress toward establishing a productive research program. An assistant professor is expected to make significant progress towards developing a research program and disseminating results in one or more peer-reviewed

publications. Whenever possible, the program should involve undergraduates in meaningful ways. Published papers with student co-authors provide strong evidence of this. Progress towards securing external funding is important at this stage. Presentation of scholarly work at professional meetings is typical throughout a scientific career.

For tenure and promotion to the rank of Associate Professor: successful establishment of a productive research program. For tenure and promotion to associate professor, at least one peer-reviewed publication reporting on work completed while appointed at St. Olaf is expected. Work that has involved St. Olaf students is particularly valued. The awarding of a significant external grant, such as a competitive grant from the NSF, NIH or other national organization, is considered to be the equivalent of a prestigious peer-reviewed publication. However, the expectation regarding publishing results prior to tenure remains in effect, regardless of a major grant award.

Whenever possible, the faculty member's research program should involve undergraduates in meaningful ways. Published papers with student co-authors provide strong evidence of this. Attempts or success at securing external funding is expected. Presentation of scholarly work at professional meetings is typical throughout a scientific career.

For promotion to the rank of Professor: sustainment of a productive research program. For promotion to full professor, the individual must demonstrate consistent engagement in scholarly work as described above and a record of significant achievements. It is expected that in the period of time since receiving tenure and promotion to associate professor, the faculty member has initiated one or more new phases of their scholarship and has published at least one paper on this work in a peer-reviewed journal. "Phase" here could consist of new work in the same area or whole new area(s) of research emphasis. Work that has involved St. Olaf students is particularly valued. The awarding of a significant external grant, such as a competitive grant from the NSF, NIH or other national organization, is considered to be the equivalent of a prestigious peer-reviewed publication.

In accord with section 4.VII.C.3.c of the Faculty Manual, the Physics Department recognizes that service in administrative roles, such as department chair, program director, associate dean, director of a center or office, or other comparable position, may result in a reduced extent of scholarly work. It is expected, however, that the candidate will continue to demonstrate distinction in relation to teaching, scholarly work, and service.