

Department of Chemistry & Physics at USC Aiken

Expectations for Promotion and Tenure

The Department of Chemistry and Physics at the University of South Carolina Aiken embraces the need for flexibility in addressing promotion and tenure issues. Our Department Mission Statement stresses the importance of providing a quality educational experience for all of our students in both the classroom and lab. Instrumentation and equipment within the department are intended primarily to support that educational mission. The department will continue to hire faculty who support the educational mission by having a strong desire to enhance their teaching skills in both the classroom and lab and who see this enhancement as a continual process. Because the department does target its resources towards our educational mission, department faculty have had to begin scholarly activities here in areas that are compatible with our instrumentation and facilities whether or not the work is related to the research in which they developed expertise during graduate school or postdoctoral work. Pedagogical research is an excellent alternative to laboratory type research as evidenced by numerous publications in the *Journal of Chemical Education* and elsewhere. The department also follows the model of faculty mentor/student apprentice in our research and scholarly activities and, therefore, strongly encourages involvement of our undergraduate students in those activities at all levels. Because of the value we place on this model and the strong interactions that occur between faculty and undergraduates, we accept that a slower pace of research activity may occur than might otherwise be expected should graduate students and other professional researchers be involved. Under these circumstances, the department believes that it would be unwise to establish rigid guidelines and schedules for promotion and tenure apart from those already in place at the campus level.

In the past, faculty members have taken a variety of routes to scholarly productivity, some of which were never anticipated and yet became highly beneficial to the faculty member, department, and university. Activities such as curriculum development, web site construction, and data base development are just a few examples of how creativity and ingenuity can prompt scholarly activities that fall outside of traditional laboratory/computational research. It has been the responsibility of each faculty member, in close consultation with others in the department and the department chair; to set goals and time lines, to arrange annual activities such that progress can be made in the areas of teaching, scholarship, and service; and to document the level of those activities. It is entirely possible that a truly significant effort in one area may be more important than several smaller contributions in that or other areas. Only the faculty member, in conjunction with the chair, other department members, and possibly outside reviewers, would be in a position to make that case. We expect faculty seeking tenure or promotion to continue to make their case by building a strong file that provides support for their application. All persons who contribute to the file should explain how the faculty member's activities demonstrate the appropriate level of performance, whether that level is sustained, significant, active, effective, or outstanding. This will allow our small department the ability to help faculty contribute in whatever ways their career develops.

None of this is outside of the present campus and system wide guidelines for promotion and tenure, which are stated specifically in the *Faculty Manual*.

Teaching

Conscientious teaching goes beyond student perceptions of the high quality of activities in the classroom.

- *Our department will continue to seek evidence of faculty progress towards the stated goals of their own courses.
- *We will expect that a faculty member will contribute expertise to others in the department in the areas of course and lab development.
- *We will continue to expect faculty members to work as team members for the benefit of a particular course sequence, as was done in achieving the departmental goal of integrated lab/lecture.
- *We will also expect faculty members to recognize the contributions that their particular upper division courses make to our highly sequential program and to plan those courses accordingly.

These goals require continual effort, attention, and contribution from all faculty members, including those who are new to the department or who are seeking promotion.

Scholarship

Scholarly activities can be varied and wide ranging or focused in one area. The recognized aim for our department is to disseminate whatever each of us has learned or developed to the larger professional audience.

- *The dissemination of new information lies traditionally but not exclusively in peer reviewed activities.
- *Presentations at conferences, poster sessions, magazines articles, or published book reviews and textbooks are just a few of the many ways faculty can demonstrate scholarly activity outside of traditional peer reviewed publication.
- *Creative activities, such as web page design or internet database construction, undergo a different form of evaluation apart from traditional peer review.
- *Soliciting research funding is clearly a scholarly activity but is not necessary for scholarly activity to occur. Our department will continue to applaud the efforts and successes of those seeking external funding but will see this as one of many possible scholarly pursuits.
- *We reasonably expect some measure of success in bringing projects forward through peer review, to either presentation, publication, or grant support prior to application for tenure or promotion although, as mentioned already, it is difficult to be more specific.

Towards a clearer understanding of the promotion and tenure guidelines already established for this campus, the Department of Chemistry & Physics offers several definitions and explanations that will apply for future reference:

1) Multiple author papers are routinely encountered in chemistry and physics since most laboratory work is labor intensive and requires the efforts of more than one participant. The faculty mentor/student apprentice model used in our disciplines invites contributions from student researchers to larger studies of broader significance directed and overseen

by a single research faculty member. Students may work simultaneously on different aspects of a project or sequentially using previous students' results as a starting point for their own investigation. As provided in the ethical considerations guidelines of the American Chemical Society, "The co-authors of a paper should be all those persons who have made significant scientific contributions to the work reported and who share responsibility and accountability for the results."

2) Some areas of investigation lend themselves to collaborative work with more than one senior investigator, especially when a common area of interest can draw from two different backgrounds and areas of expertise or different skills. Quite often each senior investigator brings the skills and capabilities of his or her research students to bear on the research question. Collaboration is driven by the needs of the investigation, the nature of the research, or the funding opportunities. Collaboration is a time-honored way in chemistry and physics of making scholarly contributions.

3) In chemistry and physics, no distinction about quality is made among journals as to their publication origin, whether national or international.

4) The listed order among multiple authors in any presentation is not a distinguishing feature. The only usual distinction in authorship is that of the 'corresponding author' whose role could be anything from work coordinator to presenter to lead author to research director or some combination of these. A faculty member listed as corresponding author will need to clarify his or her role.

5) The idea of journal acceptance rate is not applicable in chemistry or physics. Most if not all journals in these fields are peer reviewed with the goal of the process being manuscript refinement so that it is acceptable in terms of science and presentation. Once accepted, publication occurs according to the journal's schedule, which may be six months to two years depending on the backlog of accepted articles. The significance is in passing the scrutiny of the peer review process.

6) The apparent "rate" at which a faculty member appears on publications depends on the nature of the involvement. For faculty participating in multi-investigator projects, more frequent publication could be expected (although this depends on the nature of the work). For faculty pursuing projects on which they are the sole experienced investigator and undergraduate students are responsible for the bulk of the laboratory work, publication rates may well be lower. The department recognizes the validity of both approaches and leaves the choice to the individual faculty member. The faculty member and those individuals writing supporting letters will need to justify the work as sustained, significant, or both.

7) Authoring books based on the discipline of chemistry and physics, be they specific, general, popular, or textbook, would be viewed as fine examples of scholarship.

8) It is not unusual for a topic or title to appear multiple times in a vita during the normal course of project growth from funding to presentation to publication. Duplication is

avoided by submission of an abstract to conference organizers and by peer review in publication. In our profession, presentations or manuscripts are intended to add to or enhance information already available and therefore must contain some unique aspect when compared to previous work, although the title may be similar to one used earlier.

9) It is important to keep in mind that those who organize professional meetings for chemistry and physics actively encourage poster presentation over formal talks for two reasons. First, scheduling a large number of talks is problematic, particularly at large conferences, and attending one talk precludes attendance at others. Second, the more conversational atmosphere and the longer allotted time for a poster session provides a way for all attendees interested in several topics to interact with the presenters and initiate fruitful discussion. This could never be done in the formal presentation format. It is now very common for a presenter to be assigned to a poster session; the presenter would need to make a special and justifiable request for the presentation to be in a different format.

Service

The department expects all faculty members to maintain an active service agenda.

- *There are many opportunities for campus service through election to standing committees, volunteering for various subcommittees, involvement with external department or school searches, or ad hoc committee assignments.
- *Within the department, service is expected to help maintain instrumentation and equipment, to help keep department records or statistics, to help with department decisions and direction, to be fully engaged in the coordination of curriculum across the program, and in a variety of other tasks. Academic advising is usually viewed as service to the department, campus or both. It may reach into the teaching area depending on depth of advisement and time allocated to the process. The candidate would need to make the case for however academic advising is used in the application.
- *Service and leadership to the profession can entail being a peer reviewer for proposals or manuscripts, national and local professional society participation and committee work, or professional conference activities and assignments.
- *Community service opportunities include participation in local events such as SEED or Regional Science Fair, chemistry demonstrations for public audiences, teacher workshops locally and across the state, help developing our department as a community resource, etc.

It is clear that the P&T Guidelines in the Faculty Manual accept and expect faculty to have an option in making a distinction between their efforts in service and scholarly activities. It is also clear that teaching activities have a primary role in the efforts of a faculty member and in the P&T decision. The department accepts this position fully and would expect faculty to be explicit in their P&T files as to the distinction they have made for their efforts in service and scholarly activity. Faculty would still need to make their case for performance in all three areas at a level consistent with guidelines in the *Faculty Manual*.