

BIOLOGY DEPARTMENT
Disciplinary Guidelines for Tenure and Promotion
December 2017

Assess the Nature of the Discipline(s) in your Department in the realm of teaching

Questions to Consider and Answer:

1. What elements of your department's discipline are classified as auxiliary teaching activities?

Laboratory sections:

- Although laboratory sections count towards assigned course loads, there are several aspects of teaching courses with a lab component that may be unfamiliar to those who do not teach in this environment. These include the following:
 - The laboratory component may be conducted in the standard on-campus laboratory classroom or at an on- or off-campus outdoor field site.
 - Laboratory sections involve substantial out-of-class time to set up and coordinate laboratory and/or field exercises. Additionally, the hours of time in contact with students exceeds hours of credit given for classroom teaching (1.5 credits for a 1 hr 50 minute lab).
 - Implementing and redesigning lab components and modules includes maintenance of supplies and equipment, software programs, calibration of instruments, and managing shared workspaces, all of which requires considerable time commitments.

Other Auxiliary teaching activities:

- There are many additional activities that we recognize as teaching, but that fall beyond the normal assigned course loads. These include the following:
 - Direct supervision of students in research (includes BIO 4990, BIO 5550, RISE, Environmental Science internships, PURC-sponsored scholarships, and other externally-funded programs). This may involve direct supervision in the laboratory or field, as well as time and effort spent running and coordinating the lab or research program (including maintaining supplies, running lab meetings, research planning, fundraising, managing databases, etc.).
 - Mentoring and assisting in grant programs with the goal of improving students' research, professional development, and academic success (e.g.,

RISE, COMPASS, NSTA, AERA, NARST). Faculty who contribute their time to these programs (e.g., workshops) promote students' critical thinking skills, develop the students' study and organizational skills, stimulate students to improve performance, motivate students, and contribute significantly to teaching activities in our department.

- Supervision of science teachers in the field (Science Education program). This involves direct supervision of preservice science teachers in secondary schools, including evaluation and mentoring of their efforts, placement in secondary schools, meetings with school system personnel, coordination with UNCP Teacher Education programs, and evaluation of their edTPA final document.

Additional topics to assess:

- What discipline specific note, addition, or deletion should accompany "imparting general knowledge?" **No additions.**
- What discipline specific note, addition, or deletion should accompany "imparting specific knowledge?" **No additions.**
- What discipline specific note, addition, or deletion should accompany "developing skills?" **No additions.**
- What discipline specific note, addition, or deletion should accompany "motivating student?". **No additions.**
- What discipline specific note, addition, or deletion should accompany "setting requirements and evaluating performance?" **No additions.**
- What discipline specific note, addition, or deletion should accompany "success with effective teaching practices?" **No additions.**

Assess the Nature of Nature of the Discipline(s) in your Department in the realm of *research and scholarship*

Questions to consider and answer:

1. What elements of your department's discipline are critical to scholarship and may be unfamiliar to faculty in other disciplines.

Authorship:

- Scientists and science educators often collaborate with many partners (co-authors and co-principle investigators) in the carrying out and publication of research (scientific journals, books, book chapters, proceedings of professional meetings, grants and contracts, commissioned reports, etc.). To recognize such collaboration, many authors are typically listed on the publication. To be listed as an author, a person must contribute to a manuscript in each of the

following three areas: 1) A substantial contribution to conception and design; or data acquisition and curation; acquisition of funding; project supervision and administration, or analysis and interpretation of data. 2) Drafting the article or revising it critically. 3) Final approval of the version to be published.

- The order of co-authorship listings often (though not always) reflects the degree of contribution. First authors typically take the lead on writing and most other aspects of the research. It is a general assumption that authors appearing earlier in the list contributed more and authors appearing later contributed less. If many individuals contributed equally, this is noted with a footnote. The most senior researcher that serves as the principal investigator may be listed as the last author. Those with minimal contributions are included in the acknowledgments.

2. What does peer review mean in your discipline? Describe any circumstances where peer review is not necessary for work product to be considered scholarship.

Peer review means that the work was evaluated and approved by experts in the discipline. Such experts are generally expected to be external to the department and University, and therefore have no conflicts of interest. All work must be evaluated by peers if it is to be considered as legitimate scholarship.

3. What does and does not qualify as meaningful creative work in your discipline?

Scientific illustrations, photographs, and other creative works published or displayed by respected publishers, presses or institutions in the author's areas of expertise can be considered as meaningful creative work.

4. Does "paid" work count as scholarship? Explain?

Scholarship output that results from paid work should be considered of equal significance to scholarship output resulting from unpaid work. In some cases, research is funded to provide faculty only a small stipend or honorarium to support their research during the 9-month appointment time. More commonly, faculty are provided a summer salary from internal or external funding sources for work performed during the 3-month summer period. It is our view that this is the equivalent of faculty that are paid extra to teach courses during the summer, or that take on course overloads during the 9-month appointment.

5. How do 21st century forms of disseminating work product into the intellectual marketplace figure into accepted norms of scholarship in your department's discipline?

Publication in print and online formats should be given equal weight as long as the publisher is from a reputable professional organization or press in the field. Many scientific and science education journals now publish papers only as online or hybrid print/online versions for wider and more rapid dissemination to the public.

6. How does your department's discipline assess issues of quality of scholarship?

Any work that has gone through peer review at reputable professional organizations or presses in the field is to be considered legitimate scholarship (including conference abstracts that are selected for presentation in poster or oral delivery formats). It is expected that most scholarship is disseminated to a broad audience so that knowledge is advanced. If scholarly output does not fit the typical academic peer review model, it is the responsibility of the faculty member to explain in writing how their scholarship fits into the model.

The relative quality of the work is typically gauged by 1) the journal impact factor, and 2) the number of times the work is cited. Journal impact factors are projections of how commonly research papers from that journal will be cited (average number / year) based on the historical performance of other articles in that journal. Actual measures of frequency of citation are only available after several years and are thus not immediately available to assess research quality. There are several indices that can track a person's overall research.

7. How does your department's discipline assess issues of quantity of scholarship?

Scholarship can be quantified as the number of overall outputs in the form of the various contributions listed in the faculty handbook. However, expectations should be purposefully flexible since "teaching is the single most important responsibility of regular full-time faculty members" (p. 70).¹ We recommend not setting a target quantity of expected scholarship output, but that faculty that manage to maintain scholarship productivity be evaluated highly for their contributions.

Additional topics to assess:

- What discipline specific note, addition, or deletion should accompany “Dissemination of Scholarship?”

Programs with the goals of improving students’ research, professional development, and academic success (e.g., RISE, COMPASS, NSTA, AERA, NARST) may require submission of interim reports and renewals. In such cases, the resulting reports may qualify as scholarship if they were subject to external peer review before acceptance or approval, and if the report is made available to a broader audience to advance knowledge.

- What discipline specific note, addition, or deletion should accompany “Creative Activities?” **No additions.**
- What discipline specific note, addition, or deletion should accompany “Editing?” **No additions**
- What discipline specific note, addition, or deletion should accompany “Grants and Contracts?” **No additions.**
- What discipline specific note, addition, or deletion should accompany “Classroom based research projects—scholarship of teaching and learning?” **No additions.**
- What discipline specific note, addition, or deletion should accompany “Scholarship related to service or the use of professional expertise, Scholarship of Engagement or Application?” **No additions.**
- What discipline specific note, addition, or deletion should accompany “Other?” **No additions.**

Assess the Nature of the Nature of the Discipline(s) in your Department in the realm of *service*

Questions to consider and answer:

1. Within your department and discipline, what is the need, value, and expectation of department service?

Our department has many collective needs. Contribution in the area of department service is expected and highly valued, though the relative distribution of service effort between this and other areas will differ from person to person based upon other service obligations, teaching responsibilities, and scholarship productivity.

2. Within your department and discipline, what is the need, value, and expectation of university service?

Our University has many collective needs. Contribution in the area of University service is expected and highly valued, though the relative distribution of service effort between this and other areas will differ from person to person based upon their academic rank, other service obligations, teaching responsibilities, and scholarship productivity.

3. Within your department and discipline, what is the importance of service to profession?

Contribution in the area of service to the profession is expected and valued, though the relative distribution of service effort between this and other areas will differ from person to person based upon their other service obligations, teaching responsibilities, and scholarship productivity.

4. Within your department and discipline, what is the importance of service to community?

Our community has many collective needs. Contribution in the area of community service is expected and highly valued, though the relative distribution of service effort between this and other areas will differ from person to person based upon their other service obligations, teaching responsibilities, and scholarship productivity.

5. How does your Department's discipline assess issues of quality of service? Ultimately, the Department of Biology recognizes that there are many different ways to perform service to the department, university, profession, and community, and that the quality of contribution is typically difficult to quantify. **The department places a larger value on contributions that involve leadership roles (e.g., chairperson), that require more time commitment (e.g. serving on a standing university committee vs. membership in a professional organization), that are completed on schedule, and that have a broader impact.**
6. How does your Department's discipline assess issues of quantity of service? All faculty should ideally be active participants in at least one form (on average) of service to each of the four areas (department, university, profession, community) per year. However, expectations on quantity should be purposefully flexible since "teaching is the single most important

responsibility of regular full-time faculty members” (p. 70)¹, and some faculty members may devote more effort to scholarship productivity. We recommend not setting a target quantity of expected service contributions, but that faculty that manage to maintain strong service activity be evaluated highly for their contributions.

Additional topics to assess:

- What discipline specific note, addition, or deletion should accompany department service?
Programs with the goals of improving students’ research, professional development, and academic success (e.g., RISE, COMPASS, NSTA, AERA, NARST) may entail substantial service obligations. Leadership, logistical, administrative, management, and other duties can take substantial time and effort that benefits the department as a whole. Such programs offer resources to both students and faculty to improve retention, promote teaching, and to create a positive atmosphere for scholarly activity in the department
- What discipline specific note, addition, or deletion should accompany university service?
Programs with the goals of improving students’ research, professional development, and academic success (e.g., RISE, COMPASS, NSTA, AERA, NARST) may entail substantial service obligations in the form of leadership, logistical, administrative, management, and other duties. In cases where programs serve students in multiple academic departments (e.g., Biology, Chemistry and Physics, Geology and Geography), such contributions may be considered as service to the university.
- What discipline specific note, addition, or deletion should accompany service to profession?
Serving as an external thesis or dissertation examiner, or serving as an external committee member for graduate students is considered a legitimate form of professional service. Similarly, serving as an external peer reviewer for a scientific journal may be considered as a form of professional service.
- What discipline specific note, addition, or deletion should accompany service to the community? **No additions.**