

To Thrive and Prosper: Hiring, Supporting, and Tenuring Interdisciplinary Scholars

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“Exciting thinking often lies at the borders of academic disciplines, and neither scholarship nor teaching should be constrained by the boundaries of disciplinary training. These experiences are so important that the university should launch a major initiative to make them widely available to students and faculty.” ... “[C]itizenship with its challenge of solving complex problems, and scholarship as an intellectual pursuit, cannot be limited by these [departmental] distinctions.”

UNC website

Creative research and teaching increasingly occurs at the junction between traditional disciplines. Recognizing this fact many institutions of higher education have recently committed to fostering interdisciplinary scholarship. But as scholarship moves into interdisciplinary arenas, these unconventional scholars are coming up against conventional departmental hiring, review and tenure procedures. We use our own experience, a review of the literature and documents on the web, and responses to a survey sent to all members of the Council of Environmental Deans and Directors (CEDD) to explore hiring, supporting and tenuring interdisciplinary faculty members. Environmental scholarship crosses disciplinary boundaries and encounters challenges that we feel represent interdisciplinary situations across academia, from cross-cultural literature to urban and women’s studies.

Institutions around the country are beginning to recognize a need to develop new procedures for handling interdisciplinary scholars. Of the 19 institutions responding to our survey

“For each continuing and fixed-term joint appointment, a memorandum of understanding shall stipulate expectations for the faculty member in the areas of teaching, scholarship and service; procedures for faculty evaluation; and agreements regarding the allocation of resources. This memorandum of understanding shall be signed by the faculty member and relevant department chair(s), program director(s), and dean(s). To the extent feasible, the memorandum of understanding should specify when renegotiation is or is not appropriate. If any of the conditions of appointment are renegotiated, a revised memorandum of understanding shall record the changes and signatures of the individual and appropriate administrators of the home and host units.” ...

“Faculty holding either continuing or fixed-term joint appointments shall be evaluated according to the approved policies and procedures for faculty evaluation in the home unit. The memorandum of understanding at the time of appointment must specify the method(s) that will be used to solicit input from the host unit for annual merit evaluations and for tenure, promotion, and post-tenure reviews. The home unit is then responsible in each review for actively seeking input from the host unit. For all evaluations, the weighting of performance criteria shall be consistent with the specific expectations articulated in the memorandum of understanding for the individual's joint appointment.” William and Mary, website

question, “*Do you have the process for interdisciplinary hires and promotion codified?*” 16% said yes, and another 21% said that codification is underway. But while growing numbers of universities and colleges are putting in place formal procedures for hiring, and sometimes for reviewing, interdisciplinary faculty members, few have a comprehensive approach dealing with the entire pre-tenure experience. Often, the original hire is interdisciplinary, but as the scholar moves toward tenure the judgment is increasingly on individual contributions, creating a disjuncture: lured into interdisciplinary research touted as necessary for progress in the field, scholars are later held up to inappropriate standards. What should the new standards be? Until new standards are codified, should young interdisciplinary scholars try to follow the rules originally set up for, and by, disciplinary scholars? Decisions about procedures can’t be deferred because there are young scholars who want and need guidance now. Our aim with this contribution is to raise issues and provide recommendations that will benefit junior scholars and administrators alike, as we all feel our way through these new and complex areas of interdisciplinary scholarship.

Preparation for supporting and tenuring an interdisciplinary and/or joint appointment should start at the hiring phase. Interdisciplinary scholars are often hired through the joint efforts of two or more departments. Connections to more than one department may be as modest as an affiliated hire with no responsibilities in another department, or entail multiple offices, labs, teaching, research, and service requirements. The letter of appointment must spell out the research, teaching, service, and mentoring obligations for all departments involved. Some institutions require a formal “contract” that defines these roles and relationships at the beginning, and then binds the departments and deans to those expectations through the tenure process (e.g., University of Southern California). Having homes in several departments often means that faculty members have limited “face time” and are not at home anywhere, or are at home everywhere, and may have to do extra duty – attend multiple sets of departmental meetings, etc. Therefore, some institutions are now acknowledging “Chairs, program directors, and deans shall be especially cautious when defining governance expectations for pre-tenured faculty holding continuing joint appointments. Unless otherwise agreed, faculty holding fixed-term joint appointments shall have governance responsibilities only in their home units.” (William and Mary website). The University of North Carolina further advises that: “The arrangement most likely to protect the faculty member is to assign basic responsibility to the ‘home’ department but to require that the review committee include faculty from both units.” ... “the success of the appointments depended on both units being equally committed to the hire and cooperating to make them work. Academic administrators must be careful that this fundamental condition exists before approving such appointments.” (UNC website). The University of Michigan recommends “Support leadership training for Chairs and Directors. The interdisciplinary interests of faculty complicate the work of both Chairs and Directors, who need better preparation in University-wide practices and issues. Provide training for Chairs and Directors that will enable them to work more effectively with other units across the University” (UMich website)

The letter of appointment should indicate the general composition of pre-tenure and tenure review committees in terms of faculty members from departments related to the

faculty member's area of scholarship. The criteria on which the review will be based should be included, e.g. "In reviews of faculty holding joint appointments or working in interdisciplinary programs, work outside the department will be assigned the same weight as comparable service within the faculty member's home department or program." (UA website). In our survey, we found that while most interdisciplinary hires had service responsibilities in more than one department or unit, fewer had voting privileges in multiple units. In setting up these arrangements, departments should consider whether it's unfair to require service and not allow voting -- or, would voting responsibility just increase the burden further?

"...the candidate's promotion dossier must include the original agreement between the DEOs of the jointly appointing units and the probationary faculty member concerning his/her teaching and service commitments to each unit. The dossier must also include any revisions of the original agreement." (Iowa State website).

As much as possible, the search committee and pre-tenure reviews should replicate the committee structure and procedures that will be used for the recommendation for tenure. Our survey results indicated that a joint committee from more than one department typically was set up to conduct the pre-tenure reviews, although some institutions handle the reviews through one department, or through separate reviews by two departments. At the very least, pre-tenure reviews should include an assessment by the Chair or Director of other units in which a faculty member is appointed.

Once hired, interdisciplinary scholars frequently face a set of common difficulties in their research, teaching and administrative roles. Interdisciplinary research often entails special challenges because of the high networking costs: colleagues with different priorities and different field seasons – and disciplinary language barriers. Time and energy is also required for making and maintaining connections, including vetting and editing multi-authored documents. Travel can help: seeing colleagues periodically at meetings will keep connections vital, and enhance the likelihood that projects will be completed. On the other hand, high-maintenance colleagues with other priorities, drain energy and time. The best is to team up with colleagues that are seen frequently and ones who hold up their end of the relationship

"Environmental scientists typically study complex issues. Many of their projects are interdisciplinary and long-term, and challenge traditional paradigms. Their work is seldom confined to laboratories and is often oriented toward communities. For example, an epidemiologist might study the effects of an industrial hog operation on the health of people nearby." ... "But although the studies raise important issues of human rights, economic fairness, and what is in society's best interest, they seldom produce precise results or scientific proof of cause and effect. They do not break problems down into small chunks but, instead, look at whole systems. For those reasons, many editors of scholarly journals, and the reviewers they ask to evaluate manuscripts, find it hard to evaluate the studies. Ecologists, scientists who study sustainable agriculture, and environmental-health researchers often have difficulty publishing their work in peer-reviewed journals, except for a few publications focused on those fields. In turn, their lack of publications handicaps the scientists in getting tenure and promotions." Raffensperger, Myers, and Bird, 2000

Along with high networking costs, interdisciplinary research often has long start up times as programs are defined, established, and then completed (Caruso and Rhoten, 2001). Young faculty members

must consciously try to structure their research so that they can accomplish their goals within a short period so that the publications make it into the tenure dossier. This may also take some explicit mentorship by senior faculty members who are sensitive to the challenges of tenuring interdisciplinary faculty. A successful strategy may include a mix of short publications and longer, more authoritative papers, as well as a mix of multi-author and first or single author contributions. Short publications are easier to write, easier to get co-authors to edit, and easier to respond to reviewers' concerns. Questions are often raised about the intellectual contribution of interdisciplinary scholars when their names appear as one of many on a publication. It is worth exploring the issue of authorship with tenure committees so that expectations are clear and compromises can be worked out. If there is a great deal of uncertainty about the traditions for authorship and relative contributions for different positions on a publication list, it may pay to invite a few respected, senior faculty in the same field from other universities. These visitors can give seminars and talk to the senior disciplinary faculty and educate them about the realities of quality scholarship in interdisciplinary fields.

When people don't know much about a field, they look for validation and external endorsements of research value, in the form of publications, letters, and grants.

Unfortunately, proposals addressing interdisciplinary questions can be difficult to write and fund. Colleagues may have conflicting deadlines for proposals in their own disciplines, and involving multiple departments each with their own indirect cost recovery requires negotiation. The situation is improving, but most funding agencies are still as disciplinary as universities and, by definition, the interdisciplinary projects don't fit disciplinary funding guidelines. Funding agencies often have problems reviewing interdisciplinary work: reviewers may demand more rigor in their area and may not recognize the value of the synthetic approach. And a junior scholar won't have a track record that reviewers can rely on. We recommend that junior faculty members talk to potential program managers about their research interests and ask their advice about funding strategies. Many funding agencies now set a high priority on supporting interdisciplinary research, and program managers will be eager to help young scholars find their way. Faculty can ask colleagues for copies of successful interdisciplinary proposals, and they should resubmit rejected proposals. Although rejection is discouraging, reviews often contain information, including language appropriate for the request for proposal that is valuable in rewriting. And as budgets are negotiated by several PIs, junior faculty should make sure that their interests are represented adequately enough to follow through with their contribution.

“When faculty holding continuing joint appointments seek external funding for their projects, the appropriate administrators of both the home and host units shall sign the proposals unless otherwise agreed. The allocation of overhead recoveries shall be specified in the proposed budgets and proportional to the work done within each unit. For funded projects of faculty holding fixed-term joint appointments, overhead recoveries shall go to the home unit unless otherwise agreed.” William and Mary website

What about teaching and administration? Interdisciplinary faculty members often co-teach courses, frequently getting credit for only part of the course. Yet “To have two professors come together to create what will inevitably be a new course, to coordinate its

development, teaching and the administration of assignments and grading, is significantly more difficult than providing two separate courses.” (UNC website) Moreover, departments are credited with just ½ of the students and often these classes are electives, and therefore are often not considered by departments to be as important as foundational classes: “the enthusiasm of the university for team taught courses needs to be conveyed at the department level ...” (UNC website).

With knowledge of several departments, interdisciplinary scholars are popular to have on college and university committees and for speakers at institutional events. Junior faculty should be protected from too much administration and service under any circumstances. When an interdisciplinary faculty member has the most trouble is when they are in a new program, or one of a very small faculty. In these cases, they may be called upon – or be prompted by their own passion -- to help build the program. Senior mentors should watch this very carefully so that the young faculty members still accomplish the appropriate scholarship required to get tenure. A passionate scholar who creates a successful new program, then gets denied tenure, is one of the saddest of outcomes. Also, women and ethnic/racial minorities, who are underrepresented on most college and university faculties, must be especially vigilant about accepting too much service because their input is readily sought, not only for their interdisciplinary connections, but also as representatives of a minority viewpoint.

Conversely, while institutional participation may be greater than usual, because there is less of a constituent base for new areas of interdisciplinary scholarship, participation on national and international committees is less common than with disciplinary scholars. Yet service at this higher level is important in defining agendas and establishing leadership. Junior faculty should find a senior scholar who will act as a mentor, provide introductions to leaders in the interdisciplinary area of research, and recommend them for the committees, etc. that are needed to create a reputation. Another way to establish leadership is to chair or co-chair a workshop or a special session of a professional meeting.

Preparation of the dossier for tenure requires additional care because departments, Deans and Provosts may have very different understandings of expectations. As noted above, it is best to identify at the time of hiring how the departmental recommendation for tenure will be structured: Interdisciplinary committee, or 1 or 2 departments. In our survey, when we asked how committees for tenure review at the departmental level were constituted, most said that they created joint committees from more than one department. If the review officially involves several departments, we recommend that it is clearly stated from the outset “... whether each unit will make an independent

The two units form a joint departmental promotion & tenure committee for the candidate, some members of which have appointments in one of the units and others in the other unit. The representation of each unit on this joint committee is roughly proportionate to the percentage of the candidate's appointment in that unit. The joint committee writes assessments of the candidate's teaching, research, and service and submits the assessments to the DEO of the unit designated as primary, who ensures that each departmental consulting group has identical copies of the promotion record.” Iowa State website.

and primary decision (the usual arrangement in the College of Liberal Arts & Sciences) or whether one of the departments will be limited to a subordinate consulting role.” (Iowa State website).

Assuming a positive interdepartmental recommendation to go ahead with the case, what should be the makeup of the tenure review committee? It is often helpful to have an external expert take part in the tenure review: in 9 of the cases reported in our survey, the tenure review committee included external reviewers who were experts in the interdisciplinary field of the candidate, in 5 they did not.

While the criteria for tenure vary from institution to institution, when committees sit down to review a case and make a

recommendation on tenure, typical questions are: Does the candidate have scholarly quality of mind? Is the candidate known for an important advance? Is he or she an effective teacher? Is he or she engaged in and contributing to the academic community? Is he or she on a trajectory indicating that there will be significant contributions in the future? In interdisciplinary cases, people raise an additional set of questions: What was his or her contribution to this multi-authored publication? Why is he or she not on the top of the comparison list? Fostering appropriate reviews for tenure in different systems will require different adaptations, but we recommend that guidelines documenting these frequently asked questions be added to the tenure dossier of interdisciplinary cases, so that the tenure review committee does not see this particular candidate as weak, just because these systemic issues are raised (FAQ box). Some institutions have already taken steps in this direction. In half of the 12 cases reported in our survey, when letters were sent to external evaluators, they were specifically asked to comment on interdisciplinary contributions and impact. In several cases, candidates’ CVs were annotated with information about journal standing or the candidates’ contribution.

“Tenure and promotion review - Will be carried out by a committee of at least three faculty of appropriate rank and, when possible, will consist of other faculty in the interdisciplinary department or faculty from related academic disciplines. In consultation with the faculty member and the program director, the dean will appoint review committee members. When appropriate, the director will be a member of the review committee. The committee, serving as an academic department review committee, will submit its recommendation to the dean of the college. When possible, the make-up of the committee will be indicated upon appointment to the interdisciplinary position.” St Thomas, website

Institutions serious about fostering interdisciplinary scholarship need to move beyond making joint hires and just hoping that they will work out. The National Science Foundation’s Advisory Committee for Environmental Research and Education, called for “Developing academic institutional structures and incentives for interdisciplinary environmental research and education” (Pfirman and the AC-ERE, 2003). Colleges and universities need to recognize the inherent institutional and faculty development challenges of interdisciplinary scholarship, and then create a culture and implement procedures that will allow interdisciplinary scholars to thrive and prosper.

References

Caruso, D., and D. Rhoten, April 2001, Lead, Follow, Get Out of the Way: Sidestepping the Barriers to Effective Practice of Interdisciplinarity
http://www.hybridvigor.net/interdis/pubs/hv_pub_interdis-2001.04.30.pdf

Iowa State University

http://www.clas.uiowa.edu/faculty/promotion_tenure/tenure_jointly_appointed.shtml

Pfirman, S., and the AC-ERE, 2003, Complex Environmental Systems: Synthesis for Earth, Life, and Society in the 21st Century, A report summarizing a 10-year outlook in environmental research and education for the National Science Foundation, 68 pp.

http://www.nsf.gov/geo/ere/ereweb/acere_synthesis_rpt.cfm

Raffensperger, Carolyn, Nancy Myers, and Elizabeth Bird, May 26, 2000, Using Science to Avert Environmental Catastrophe, <http://chronicle.com>, Section: Opinion & Arts, Page: B8

St. Thomas October 17, 2000

<http://www.stthomas.edu/facultyhandbook/operatingpolicies/academic/ApptsInterdisPrograms.htm>

University of Arizona

<http://www.coh.arizona.edu/COH/facinfo/aprptrpro2003/aprptrpro2003.htm>

University of Michigan

<http://www.umich.edu/~provost/slfstudy/sess/ssind-a.html>

University of North Carolina 03/18/02

<http://www.unc.edu/curriculumrevision/reports/commireport.pdf>

William and Mary

<http://www.wm.edu/FAS/faculty/documents/other/Joint%20Appointments%20Policy.pdf>

Interdisciplinary Tenure Cases

Frequently Asked Questions

Letters from external evaluators

Issues:

- Few senior scholars who know and appreciate the new direction, especially when it calls into question a standard approach
- Referees only know one aspect of the candidate's work and may think that it is of limited utility, may not see the whole picture
- Difficulties in defining a peer group for comparison that is known by many referees

Recommendations:

- Include an external expert in the field on the tenure review committee
- Modify the standard tenure letter to acknowledge that this is an interdisciplinary case and ask external referees to comment on the candidate's interdisciplinary activities and impact on related fields

Comparison List

Issue:

- Not at the top of comparison list because list often includes disciplinary stars well known to a subset of referees
- Peer group difficult to define because is contributing in a unique way to multiple fields

Publications

Issues:

- Delay in publications because of long start up time due to establishing team, networking challenges with co-authored papers, getting interdisciplinary research funded, and bringing a complex problem to an end point
- Co-author more frequently than in disciplinary cases
- Journals may not be known to everyone

Recommendations:

- Document candidate's contribution to multi-authored publications
- Document journal standing and candidate's reason for choice of journal – i.e. invited paper, read by policymakers, in a compilation for distribution to strategic committee, etc.

Honors

Issue:

- Fewer honors exist in interdisciplinary fields than in established ones, so the candidate may not be eligible for honors

Grant Support

Issues:

- May have fewer grants because there is not as much access to funding if not in an established field and interdisciplinary proposals seem to be lower ranked in disciplinary peer review
- Co-PI more frequently than in disciplinary cases

Recommendation:

- Document candidate's contribution

Teaching

Issue:

- Faculty frequently get departmental credit for only ½ of team-taught courses, and yet coordinating the development, teaching and administration of team-taught courses make them significantly more time consuming than ½ a course

Recommendations:

- Include original appointment letter indicating teaching requirement in each department
- Document teaching load vs. institutional requirement
- Include letters from co-teachers evaluating candidate's contribution

Advising

Issue:

- May be involved in informal advising of large numbers of students who stop by, but are not primary advisees

Recommendation:

- Document informal advising to the extent possible: presentations, office hours, letters from non-formal advisees

National/International Committees/Leadership

Issue:

- May not rise to leadership status in the national or international arena as quickly as disciplinary scholars because the field is not as well known, there is a smaller peer group, and therefore there are fewer committees to be involved in as the field is becoming established

On Campus Participation

Issue:

- May be involved in more committees and events than usual because seen as a bridge between disciplines

Recommendations:

- Include original appointment letter spelling out participation/governance responsibilities in each department
- Separate out "extra" service on dossier and note that these are related to interdisciplinary nature of the position