

Enhancing Interdisciplinary Research and Programming through Grantsmanship
CGS Annual Meeting, December 5, 2009
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1) Begin by confessing my sins regarding ID programming: Early years as graduate dean: weak office, weak position, most reviled place on campus. We had several ID programs housed in OGS. Our supervision was nil. 2003: I moved them out to colleges, and predictably some diminished in interdisciplinarity. So even a Jew can say mea culpa, mea maxima culpa.

2) Much has changed since then. Our OGS is much stronger now, more valued on campus. Now we could actually host an ID program. But that's another story. Instead I'm going to talk about revenue generation to support ID research and programming.

3) Some context: UTA is: a Research University-High Activity institution with almost 7000 graduate students, and \$75 million in external research and sponsored program expenditures. 153 PhDs and 1700 MS conferred.

We don't have much ID programming despite recent tremendous increase in interdisciplinary research, especially between COS and COE in areas like energy, nanotechnology/biology, materials, bioengineering.

4) This lack of ID programming connects to another problem for UTA and perhaps for you as well: Difficult to attract grants that involve several fields, large dollars, graduate student support, innovative graduate education practices.

5) 2 years ago, OGS began effort to address these 2 issues. Goal 1: encourage ID graduate programming that could reinforce and stimulate our ID research thrusts. Goal 2: Partner with our academic programs to propose and implement grants for graduate student support, innovative graduate education practices, and curricular transformation.

6) Another confession: At start, our STEM programs questioned what value OGS or I could bring to this process. And they were right—at first. I'm from the humanities. My grants were a few dollars for sitting down in library or office with a piece of paper and a pencil. And so predictably, I made all the typical mistakes: didn't know how to find the right PIs, didn't know how to help write and implement large grants, didn't know how to negotiate for grant funds and indirects appropriate to our effort.

7) Solution: My associate dean, my staff, and I taught ourselves about grants. We went from bankrolling PIs to finding right PIs and departments to being full partners. Now we're PIs and co-PIs, we write and implement grants, we develop budgets, we include OGS recruiting and retention practices, and we involve partner institutions in our projects. We identify the funding opportunity, build the team, set the timeline and schedule. We also coordinate the institutional commitment (Translation: I put up dollars and get Provost, VPR, and appropriate deans to do so as well.)

8) Our first major success turned heads on campus: OGS partnered with Math, PHYS, and CSE to win \$1.4 million in GAANN funds for PhD student support. We also helped CHEM and PHYS win an S-STEM grant for \$600K to bring community college students into their undergraduate programs.

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But it's a broad effort. Here's a partial list of the proposals we've submitted, are revising for resubmission, or writing. 1) Additional GAANN proposals, 2) \$1 million NSF ADVANCE for recruiting and retaining women STEM faculty; 3) \$600K NSF S-STEM financial support for Geology and EES bachelor's and master's students; 4) \$1 million LSAMP Bridge to Doctorate; 5) \$700K NSF-PSM for Geology and EES; 6) an NIH training grant proposal for systems biology with a protein engineering track that involves Biology, Math, Computer Science, and Bioengineering; 7) IGERT proposal in nano-biology.

We're also exploring an NEH proposal with Library and Liberal Arts on digitizing a special collection and making it accessible; a NSF Creative IT proposal with Art and CSE; and some curricular transformation proposals in math and science education with our Colleges of Education and Science.

I hope you can hear the ID flavor of these proposals in research and programming as our effort progressed.

Principles underlying our effort that may be relevant for similar efforts at your institutions:

- 1) Develop a grand strategy to guide your efforts and develop it early. Common vision allows you to maximize impact and use of resources. We didn't start with a grand strategy: we picked different projects to pursue and worked harder than we needed to. Now we have unifying thread: building pathways for recruiting, funding, retaining, and graduating minority US PhD students, especially in STEM.
- 2) Set the terms of collaboration: we have full partner, hired gun, minimal effort. Stick to them but make principled exceptions. Equal partner is best. With first two options, be sure to seek grant funds and F&A funds relative to your effort.
- 3) Prove the concept and then seek additional support: we've received funds for contract grant writer. Then we'll re-assess and apply for a full-time person. If we hit more GAANN grants, we'll use our matching funds to hire a GAANN coordinator/recruiter.
- 4) Build institutional commitment to project, including sustainability, and highlight this in proposal. PIs often have trouble with these proposal elements. OGS can help here.
- 5) Draw on your own OGS recruiting and retention activities in your proposals: may include workshops, annual progress reporting, PhD completion reporting, orientations, visitation program, research day. Programs see value of these activities for proposal, and they link programs to OGS. Such inclusion enables you to use funded projects to effect change in programs on recruiting and retention.

Conclusion: We've seen a turnaround: programs now seek our support in writing and implementing grants because we have BOTH ideas and financial and staff resources. Faculty and programs who initially scoffed at the idea are now asking to work with us. At the same time, we're encouraging ID research and programming on campus.