How can we prepare faculty to teach courses that incorporate broad skills and make connections across disciplinary boundaries?

So your general education curriculum passed, and well it should have. You did your research, went to all the right conferences, talked to all the right people, and marched back to campus carrying the flags of integration, deliberate first-year programs, writing and quantitative reasoning across the curriculum. You held workshops and forums; faculty across campus joined ad hoc committees and working groups; the air was thick with discussions and arguments and new ideas and false starts, as the model expanded and contracted and expanded again. Ultimately the faculty created an integrative curriculum that reflected the institution’s history, culture, and aspirations. And when it came up for a vote, it passed.

So now you’re happy. You’re sleeping better. You’ve shed the five pounds you gained eating donuts at all those meetings. Your kids remember your name. Life is good.

Until one morning when someone asks about faculty development. Your forehead breaks into a cold sweat. Your stomach knots.

Of course, everyone knew this curriculum would require extensive faculty development. It’s a sophisticated model, after all, asking faculty to approach the classroom in new and innovative ways—ways that graduate school didn’t prepare them for; ways that their previous teaching experiences didn’t encourage them to explore. And now it’s your job to make it happen.

Faculty development.
Yes. Of course.
You reach for a donut.

Jerry Gaff devotes the last eighth of his seminal article “Avoiding the Potholes: Strategies for Reforming General Education” to a discussion of implementation. Among other points he makes is a key one: “Courses that stress skills rather than content, that range beyond disciplinary boundaries, or that deal with value implications of knowledge pose challenges for any teacher, and such courses are especially difficult for teachers who are cut out of a traditional mold” (1980, 59). This is as true today as it was thirty years ago, and the current trend favoring highly integrative curricular models promotes courses with exactly these characteristics. In a professional setting where promotion requirements insist on the maintenance of the laser-like focus developed by graduate school training, how can we prepare faculty to teach courses that incorporate broad skills and make connections across disciplinary boundaries?

What follows is one liberal arts college’s answer to this question. While the solutions Roanoke College developed to address these
Roanoke’s intellectual inquiry curriculum

Integrated curricula come in many forms. The Roanoke College Intellectual Inquiry (INQ) curriculum draws integration from three areas. First, each INQ course is based on a focused topic. Whether a first-year seminar or an introduction to statistics, each course is taught in the context of a question or issue to which the skills of the course apply. Statistics are important because they help people analyze, among other things, gun control policies, health claims, weather forecasting, sports, and social justice issues—which is why each of these is a topic for one of our statistics courses. This contextualized focus also applies to INQ courses in the sciences, social sciences, and humanities: the common goals center on disciplinary skills and methodologies, while the topic of the course determines how those skills and methodologies are used.

Second, each disciplinary INQ course is taught from a global, natural world, or Western perspective. The perspective frames the way the topic is developed and explored. In some cases, the same topic could be taught from different perspectives—e.g., analyze US or global data in examining statistics on gun control—while in others the topic and perspective are inextricably linked. Third, all INQ courses incorporate writing and (with one exception) either oral communication or quantitative reasoning. This requirement applies to the disciplinary courses, so students have to write in their physics classes and may well use quantitative reasoning in their history classes.

Our work in preparing faculty to teach this curriculum has validated the assertion that “a sustained, connected set of faculty development experiences” is needed to “build the necessary level of skills, commitment, and community” for integrative teaching (Huber et al. 2007, 51). In the end, it’s our sense that two components, preferably in combination with one another, can help create an atmosphere of sustainable faculty development for an integrative curriculum. More specifically, we believe successful development models highlight the intellectual nature of course design and pedagogy while encouraging a creative, exploratory approach. We will discuss these two components in the context of three of our own faculty development efforts: the Writing Initiative Grant program, the Collaborative Teaching Grant program, and course design workshops.

Writing initiative grants

The Writing Initiative Grant program actually predates our INQ curriculum. In fact, in many ways this program helped lay the foundation for a campuswide conversation about the need for curricular change. The structure of the program is fairly straightforward: faculty from outside the English department apply for grants to learn how to teach writing, and then they teach it. Pre-INQ, this meant teaching writing in a first-year writing course. Post-INQ, it means teaching writing in a non-English general education course. Imperative to the success of this program are three simple ideas: (1) faculty should receive a full year of training prior to implementing the writing aspect of their courses; (2) the training should be not only practical but also intellectual in nature; and (3) faculty should teach multiple iterations of their writing-intensive course.

In practical terms, this means that grant recipients begin the development process by reading several highly theoretical articles on the nature of composition studies in the United States—James Berlin’s “Rhetoric and Ideology in the Writing Class” (1988), for example, or David Bartholomae’s “Inventing the University” (1985). We take this approach in order to foreground the idea that teaching, like research and scholarship, should not begin at the level of tips and tricks. Rather, the
practices we use in the classroom should arise from careful consideration of the broader contexts: If I choose to respond to my students’ essays using method X, what informs that choice? What are the consequences—academic, political, psychological, and so forth—of that choice? Additionally, as with scholarship, our teaching practices should demonstrate a willingness to attempt new methods, examine the results, and adjust as necessary.

We also find that a scholarly approach to faculty development appeals to the scholar in all of us. We got into this profession, after all, because we enjoy ideas, we enjoy testing our minds, we enjoy exploration and discussion. This last point implies that raising the intellectual level of development allows for scholarly “small talk.” Ten academics in a room debating an issue are also forming a community, a group with a common language and shared values forged around a discussion of the things we care about—our students, our work, the life of the mind. That the training goes on for a year (and indeed, because multiple iterations of the course are taught, for two to four years) only strengthens this sense of community.

Additionally, because of the length of the program, an exploratory atmosphere is created. A shorter development period can lead to an almost algorithmic approach: “I don’t have much time, so let me cut to the chase and just give you the formula for success.” But as we know all too well, no such formula exists. By contrast, faculty are more likely to develop individualized approaches that will be successful for them and will become integral to their teaching if they have time to explore pedagogical issues before they get into the classroom; if they can exchange ideas, both theoretical and practical, with colleagues; and if they have the opportunity to reconsider, rehypothesize, and reimplement based on the results of their first attempts.

Collaborative teaching grants

Our Collaborative Teaching Grant (CTG) program began as an imitation of the Writing Initiative Grant program. We wanted to encourage faculty in different disciplines to find connections between their fields and their courses, and to seek areas of integration that could be developed and highlighted for students. Why not, then, develop a program where faculty applied for a CTG, where they participated in not just practical but intellectual discussions, and where they were expected to teach the course not just once, but two or three times?

Fairly quickly, the CTG program evolved into its own animal. Partly as a result of a scarcity of intellectually engaging materials on collaborative teaching, the intellectual part of the question had to be addressed in a different way, namely, through increased dialogue among collaborating faculty. Sometimes this happened in the classroom; we had, for instance, an ethics course collaboratively taught by professors specializing in theology, Eastern religions and literature, and drama who relished the in-class debates created by their agreements and disagreements about the course material.

One of the most interesting elements of the CTG program was the range of ways in which faculty collaborated. We tend to think of collaboration in terms of traditional team-teaching—two professors in a single class—but doubling the resources for each class was not a model we could sustain, and team-teaching by simply dividing a course in half did not provide the integration we sought. So we encouraged faculty to envision other ways to collaborate, and their creativity flowed—from linking theory and application courses through joint assignments, to highlighting different faculty perspectives through plenary lectures in common courses, to using a single offering of team-teaching as a springboard to more integrative standalone courses down the road.

All these methods promote faculty conversations across disciplinary and departmental boundaries. They provide participating faculty with an expanded arsenal of ideas, knowledge, and ways of thinking that they carry with them back to their departmental, noncollaborative courses. And ultimately, they all help give students a more integrated experience.

Results from our assessment of the CTG-funded courses suggest that a majority of participating students found these experiences more integrative than traditional, single-discipline courses. The exposure to different faculty...
perspectives within a course helped them make connections across the disciplines involved and improved integrative skills such as valuing, examining, and combining diverse viewpoints. Similarly, faculty learned from each other—both content and teaching methods—when co-planning (and sometimes co-implementing) a course. Faculty evaluations suggest that these collaborative projects often enhanced instructors’ sensitivity to integrative and interdisciplinary possibilities in all their classes.

Course design workshops
Very early in our curriculum development process, we were fortunate to encounter the work of Barbara Tewksbury, a geoscientist from Hamilton College. Working with the support of a grant from the National Science Foundation, Tewksbury, together with Heather Macdonald from the College of William and Mary, developed a top-to-bottom approach to course design that is specifically structured to help faculty in the geosciences move beyond traditional coverage-based models and traditional instructor-centered classrooms. They eventually revised and expanded their no-nonsense, jargon-free approach into a flexible online tutorial and workshop approach that is appropriate for courses in any field, including general education.¹

There is nothing especially startling about Tewksbury’s model. It’s essentially a “backward” course design program, wherein faculty begin with a simple guiding question: what should students be able to do when they have completed the course? Tewksbury mercifully cuts through the usual load of eduspeak by simply calling the answers to this question

¹ Roanoke College
goals.” Once workshop participants have established baseline goals, they are asked to (re)consider course content and structure. Teaching chemistry in the context of a crime scene invites a different course organization from teaching chemistry in the context of the environment, for instance, and neither approach is likely to mirror the organization of a standard textbook. Identifying a structure that both supports the goals and draws effectively on available materials can be challenging, but the payoff is a framework for giving students meaningful, transferrable skills and knowledge. From here, Tewksbury (or whoever is leading the workshop, which is eminently portable) asks participants to think about how their course goals and structure might shape course assignments and assessments. And finally, faculty explore active-learning pedagogies that will help students practice the desired outcomes prior to final assessment.

Since discovering Tewksbury’s holistic workshop, we have used tailored versions of it multiple times in multiple contexts, working with more than a third of our faculty to develop over sixty new courses from mathematics to music. One of our number has even taken the development model to Hong Kong, where he adapted it to the needs of his host institutions and used it many times with great success.

Our sense is that this particular version of the backward design model is so successful in part because it allows space for intellectual exploration and engagement. This is particularly true during two or more “gallery walks,” wherein faculty display and receive feedback on drafts of the various stages of their course design. For instance, once the concept of goals is introduced and some guidelines are given for designing effective goals (e.g., make them high order, make sure they are concrete and measurable), faculty are given markers and poster paper and are asked to draft a set of goals for their own courses. Once these are done, people circulate, reading quietly and leaving comments—praise, suggestions, concerns—via Post-it notes. A similar approach is taken in a culminating poster session during which polished drafts of goals, content organization, assessments, and day-to-day pedagogies are displayed and participants circulate, giving feedback. A larger conversation involving the entire group occurs after each “walk”. Which goals seemed particularly strong? What concerns did people have? How did or will they revise their own work, based upon what they’ve seen?

Beyond the obvious practical results of this strategy—ideas are first tossed up, critiqued, and then revised into more polished form—there are a few additional benefits. Pedagogical tips are sought and shared; broader intellectual discussions form around the ideas presented on posters; relationships between courses and fields are revealed; common interests are identified, from mountain biking to Vygotsky to chaos theory; and possible collaborations are explored. The informal exchanges build shared values and goals that engender respect among colleagues, inviting faculty to venture beyond disciplinary silos.

And that’s the point, because ultimately it’s about faculty development. And as Jerry Gaff (1980, 55) pointed out, citing the “iron law” declared by former University of Chicago dean Jonathan Smith, “students shall not be expected to integrate anything the faculty can’t or won’t.”

Yes. Of course.
Reach for a donut.
It’s time to get started.

To respond to this article, e-mail liberaled@aacu.org, with the authors’ name on the subject line.

REFERENCES

NOTE
1. See the Cutting Edge Course Design Tutorial developed by Barbara J. Tewksbury and R. Heather Macdonald, which is available online at http://serc.carleton.edu/NAGTWorkshops/coursedesign/tutorial/index.html.