

Interdisciplinary Linkages: Encouraging Students to Examine Complexity

Ron Byrnes, School of Education

Kit Spicer, School of the Arts

We heard from faculty that an interdisciplinary focus will be increasingly important in educating students during the coming decade. At the same time, however, we heard fears that the role of the individual disciplines might suffer in a rush toward a far greater interdisciplinary focus. PLU needs to discover ways of fostering *both* disciplinary and interdisciplinary approaches, ways that draw upon the strengths and insights of each.

During the appreciative inquiry exercise at the 2001 Faculty Fall Conference, one faculty colleague offered the metaphor of a bridge to understand the relationship between disciplines and interdisciplinary offerings. He suggested that the *piers* of a bridge represent the disciplines, sunk solidly in the bedrock, each independent yet connected by cables and the bridge deck. The *bridge deck*, spanning over and supported by the piers, represents the interdisciplinary linkages that exist and need to be nurtured.

At the faculty fall conference, 2001, Carol Geary Schneider reminded us that the issues we face in our world are generally not simple enough to be adequately examined from only one perspective. Schneider noted, for example, that liberal education in the early 21st century is organizing around assumptions of greater connectedness with diverse western and multi-cultural perspectives, seeks connections across disciplines, connects liberal and pre-professional studies, and suggests that general education is both introductory, integrative, and multi-disciplinary. Additionally, Schneider notes that universities and colleges are promoting integrative learning “through collaborative work; topically linked courses; interdisciplinary majors and minors; capstone courses in general education; and/or through combining analytic and experiential learning.”

In the *Handbook of the Undergraduate Curriculum* (1997), James Ratcliff reminds us that general education should promote integration, synthesis, and cohesion of learning. In her review of the *Handbook*, Julie Thompson Klein concluded that, “the defining metaphors of the discourse are images of coherence and connection, collaboration and community, clustering and linking, interrelation and integration” (*Liberal Education*, Summer 1998, p. 6).

In the interest of interrelation and integration, Michael Dertouzos, former Director of MIT’s Laboratory for Computer Science, challenges academics to move beyond what he refers to as the humie-techie split. He writes:

In our increasingly complex world, technological and social issues are becoming more and more intertwined. Whether designing a twenty-first-century automobile, deciding where to locate a nuclear plant, planning the growth of a city, leading a large organization, setting the privacy policies of a new health care system, or deciding where to live, we are increasingly confronted with many mutually interacting technological and humanistic issues. (What Will Be, 1997, 312).

Students stand a better chance of understanding, managing, and resolving twenty-first-century challenges if they not only master one particular discipline, but understand interrelationships between disciplines as well.

Attempting to make sense of the September 11th attacks illustrates the importance of an interdisciplinary education. Can one make sense of international terrorism without some understanding of world religions, politics, world history, anthropology, languages, geography, military science, history, and psychology among other fields of study? The dilemma we face with such a list is that the individual disciplines cannot be fruitfully used in isolation. Our analyses of the events must include knowledge emanating from each discipline, as well as the interrelationships between the disciplines as well.

PLU is intentional about interdisciplinary teaching and learning in programs and courses such as the International Core (Core 2); interdisciplinary programs such as Women's Studies, Global Studies, or Environmental Studies; some team taught classes such as "The Business of the Arts," and Freshmen Experience Program writing seminars and critical conversations. Additionally, the faculty at PLU have intentionally worked to integrate professional studies and the liberal arts, certainly a form of interdisciplinary work.

The need to understand complex and increasingly "messy" problems from multiple and interrelated perspectives demands that undergraduate education in the 21st century be even more intentional in offering a truly interdisciplinary focus. Every student who leaves PLU should have the ability to approach a public issue (e.g., health care) from multiple perspectives and, more importantly, should be able to articulate the interconnections and relationships between those perspectives.

Given that the major is where disciplinary work is accomplished, where can we encourage more interdisciplinary, multidisciplinary, or cross-disciplinary interactions without unduly sacrificing individual disciplines? The attached chart offers a variety of recommendations that we have heard or inferred.