

# Mixing It Up! Collaborating Across the Disciplines

## Designing an Interdisciplinary Course

- **Ayres, B., & Gibbs, P. (1997). Mythic America: Developing an Interdisciplinary Course. *Teaching English in the Two-Year College*, 24(4), 326-33.**

Ayres, a literature instructor, and Gibbs, a historian, developed a team-taught course called Mythic America, which integrated their disciplines and which deepened students' understanding of each. Organized around a selection of six socially significant myths, the course provided tools from both disciplines to equip students in their exploration and learning. Scheduling challenges, processes of planning and designing, and assessment roles and responsibilities are reviewed. The authors argue that this interdisciplinary approach to the study of society and culture helps students to appreciate and understand the power of myths, values, and their own myth-making processes.

- **Epstein, M. J. (2004). Teaching a "humanistic" science: Reflections on interdisciplinary course design at the post-secondary level. *Current Issues in Education*, 7(3), 1-11.**

Development of post-secondary curriculum in emerging interdisciplinary fields presents particular challenges in course design and resource utilization, especially when the field is interdisciplinary by nature of its inherent breadth. A new course at the University of Calgary, designed to introduce undergraduate students to the methods and philosophy of Acoustic Ecology--the study of sound and its effects on health, cognition and culture--exemplifies both the challenges and some practical solutions. Epstein explores the pedagogical precedents for interdisciplinary education and applies them to the field of emerging Acoustic Ecology, integrating perspectives from the humanities and sciences. Conclusions drawn include the necessity of an integrative and inquiry-based approach to interdisciplinary fields of study that are true 'interdisciplines', the utility of experiential fieldwork, and the advantages presented by a student group with diverse academic backgrounds.

- **Fink, L. D. (2003). *Creating significant learning experiences: An integrative approach to designing college courses*. San Francisco: Jossey-Bass.**

In the process of addressing the question, How can I create courses that will provide significant learning experiences for my students?, Fink urges teachers to shift from a content-centered approach to a learning-centered approach, providing several conceptual and procedural tools that will be invaluable for all teachers when designing instruction. Acquiring a deeper understanding of the design process will empower teachers to creatively design courses for significant learning in a variety of situations.

- **Miller, K., & Totten, I. (2009). Developing and implementing an interdisciplinary origins course at a state university. *Journal of College Science Teaching*, 38(4), 24-29.**

The authors describe designing a course to promote science literacy on the theme of 'origins', focusing on humanity, life, and the universe. The nature and limitations of science, forms of scientific investigation, and ways of knowing were emphasized. Faculty from the sciences and humanities met regularly to discuss the objectives and structure of the course, and to assess the institutional and professional barriers to interdisciplinary learning. The faculty group also drafted

learning objectives for the course and decided how to balance scientific and philosophical concepts throughout the duration of the course, as well as how to find common ground between content-driven and student-driven approaches. The course included contributions from faculty in physics, biology, geology, philosophy, and English. The syllabus, assessment procedures, and student feedback are provided by the authors.

- **Newell, W. H. (1994). Designing interdisciplinary courses. *New Directions for Teaching and Learning*, (58), 35-51.**

A step-by-step guide to designing interdisciplinary courses. Underlying theoretical rationales and expected educational outcomes are explored, and concrete suggestions and examples are offered. Steps include assembling an interdisciplinary team, selecting a topic, identifying disciplines for inclusion, developing the issues underlying the course, structuring the course, selecting readings, designing assignments, and creating a syllabus.

- **Repko, A. F. (2008). Assessing Interdisciplinary Learning Outcomes. *Academic Exchange Quarterly*, 12(3), 171-178.**

Assessing outcomes for interdisciplinary courses and programs involves establishing outcomes that interdisciplinarians typically claim for their courses and programs. There are four cognitive abilities that the literature on cognition and instruction suggest are hallmarks of interdisciplinary learning: 1) develop and apply perspective-taking techniques; 2) develop structural knowledge of problems appropriate to interdisciplinary inquiry; 3) integrate conflicting thoughts from two or more disciplines; and 4) produce a cognitive advancement or interdisciplinary understanding of a problem. Repko explains how these abilities may be expressed in the language of assessment and assessed on both the course and program levels.

- **Ruwe, D., & Leve, J. (2001). Interdisciplinary course design. *Clearing House*, 74(3), 117-18.**

Describes problems faced in an interdisciplinary course taught by the authors on major 19th and 20th century figures and ideas in the humanities (literature, music, art, and philosophy). This article examines how they refashioned it to focus on depth rather than breadth, offering some hard-won insights and advice for those embarking on interdisciplinary teaching. Transforming the course from a multidisciplinary to interdisciplinary required a thematic orientation rather than a comprehensive survey approach.

## Links

- **Association of Integrated Studies** (Miami University, Ohio)
  - Guide to Interdisciplinary Syllabus Preparation: <http://www.units.muohio.edu/aisorg/syllabi/GuidetoInterdisciplinary.pdf>
  - A Collection of Peer-Reviewed Interdisciplinary Syllabi: <http://www.units.muohio.edu/aisorg/syllabi/collection.shtml>
- **The Ideal Course and the Dream Team** (James R. Davis): <http://www.nea.org/home/34957.htm>
- **Interdisciplinary Course Design** (UBC Wiki): [http://wiki.ubc.ca/Interdisciplinary\\_Course\\_Design](http://wiki.ubc.ca/Interdisciplinary_Course_Design)
- **Designing a New Course at UBC**
  - Guidelines: <http://www.grad.ubc.ca/faculty-staff/graduate-council/new-course-proposal>