

GENERAL EDUCATION COURSE ENHANCEMENT GRANT COMPETITION

1. Principal Investigator Name and Academic Title

Peter C. Baldwin, Professor, History Department

2. Email Address: peter.baldwin@uconn.edu

3. New Course

4. History of Technology in America, HIST2XXX/2xxxW, Department of History

5. Describe your project and the work that will be done *during the grant period* on course content and course design.

I plan to develop a course that would engage the intellectual interests of several groups of students who do not typically take classes together: students in history, engineering, computer science, and communications. The course, as I envision it, would examine the development, application, and evolution of technologies in the context of American cultural and social history.

The course would focus not simply on series of shiny new gizmos, but on the ways in which technology and American society have grown up together and shaped each other. It would take as its organizing thesis the idea that new tools and consumer products are developed to meet certain perceived needs in their society of origin, and that their application is shaped by the prevailing culture. The United States, as the most technologically innovative nation in the world, is an ideal subject of study. I anticipate that while the course would follow a roughly chronological order, it would use the various technological developments as case studies for exploring broader thematic issues. For instance, a unit on early telephones could consider the power of consumers to put a device to uses unanticipated by (and initially resisted by) its producers. My hope is that students will come away understanding that new technologies are not simply irresistible forces that “cause” predetermined changes in people’s lives.

During the grant period, I would work on identifying appropriate readings for the course, and on deepening my own theoretical and topical knowledge of the subject. (My scholarly expertise in this area is limited to the nineteenth and early twentieth centuries). I would also design research projects that students could reasonably be expected to complete during a semester. I have found in previous classes that many students have had little or no experience doing independent research projects in history. Students are better able to complete a satisfactory project if they choose their topic from a list of viable options, each of which comes with recommended readings to help launch the research effort. I believe the course would work best in the small format of a W course or an honors course. It could be taught as a 40-student lecture class as well.

6. How do you intend to evaluate project objectives once the course, as proposed, is offered? Please identify intended *learning outcomes* and *assessment tools*.

One basic learning outcome – though not the most important -- would have to be basic historical knowledge of some of the major technological changes that have shaped American life. Students

would need to gain a rough familiarity with such topics as the creation of water-powered spinning and weaving mills, use of interchangeable parts in gun manufacturing, use of steam engines in transportation and industrial production, the telegraph, and so forth. I have found that weekly homework assignments are effective assessment tools for gauging student learning and, indeed, for encouraging students to pay attention to the course materials. Occasional short tests during the semester are also necessary evils for motivating student learning and assessing whether it has occurred. A more important learning outcome would be to get students to think critically about the ways in which technological change takes place, how it is shaped by power dynamics within society, and how its social and cultural effects are contested. Most of the questions on weekly homework assignments, therefore, would seek interpretive responses. An additional assessment tool would be the short essay that would expand on the issues raised in the homework assignment; students could be required to produce at least two of these over the semester. The most important assessment tool would be the final project, which would require students to interpret a topic of their choice, using the theoretical insights they had gained in the course.

These assessment tools would be useful not just in gauging whether the student had achieved the desired learning outcomes, but also in gauging the effectiveness of the course itself. I expect that the homework assignments and class discussions would give me a rough sense every week of whether the students were learning what I wanted them to learn. The real test of the course's efficacy would come from the final papers; given space to develop an interpretive argument, students could not help revealing the extent to which they had learned to apply critical analysis to the history of technology. If students continue to discuss technology as an unstoppable force launched fully formed from the brain of an inventor, then clearly the course will have failed to meet its objectives. It's difficult at this point to say what I'd do then, but I'd certainly have to make changes.

7. Describe how the course will fit into UConn's General Education curriculum.

A course in the history of American technology would draw together students interested in technology and those interested in American social and cultural history. It would introduce each of these two groups to the subject matter studied by the other group, broadening their understanding both of technology and of American history. In a cultural moment when Americans are exposed both to ecstatic optimism about the transformative power of digital electronic devices, and grim despair about the environmental consequences of fossil fuels, a course like this would help students gain some critical thinking skills about the human role in shaping technology. Understanding of technology's past could help students better understand that people do have the power to alter the outcomes of technological change, and could dispel the sense of passivity that students may have in the face of technology's promises and threats. Thus, the course would encourage students' intellectual breadth, critical judgment, and an awareness of their era and society – all qualities central to general education at UConn.

8. For which content areas (CA1-4), competencies (W, Q), or literacies (Environmental – E) will the course be proposed and how will it address the specific criteria for courses in these content areas and/or competencies?

The course would fit into Content Area 1 (Arts and Humanities), in that it involves the investigation and historical/critical analysis of human experience. It would fit into Content Area 3 (Science and Technology) because it will be designed to promote interest, competence, and commitment to continued learning about contemporary science and technology and their impact upon the world and human society. The course's connection to these goals should be clear from the answers to the preceding questions, particularly # 5. If the course is taught as a "W" course, it would devote more class time to the process of developing and revising an historical essay.

9. How will the course *add to and/or enhance existing course offerings*?

This course would emphasize "integrative learning," in that it would blend knowledge and skills from different disciplinary areas. The proposed course would complement and build upon the following: BME 2101, Introduction to Biomedical Engineering; COMM 1300, Mass Communication Systems; COMM3600, New Communication Technologies; CSE 1000, Computers in Modern Society; ENGR 2243, Nanoscience and Society; ENVE 1000, Environmental Sustainability; GSCI 1000E, The Human Epoch: Living in the Anthropocene; SOCI 3407, Energy, Environment, and Society; and WGSS 2105, Gender and Science. Topics broached in each of these courses would be scrutinized from a different angle in the proposed course; the proposed "History of Technology in America" would add a deeper historical dimension and would reveal commonalities and connections among the histories of technologies otherwise treated in isolation. Within the history department, the proposed course would build upon insights students gain from History 2206 (History of Science) and HIST3204W (Science and Social Issues in the Modern World). It would differ from these two courses in its attention to the American context and in its focus on technology rather than issues such as "genetics and eugenics; ecology and the environment; nuclear issues; gender, race, and science."

10. Will your course serve as a model to assist others in their efforts to improve the general education curriculum? If so, how?

The proposed course would help students integrate what are otherwise often treated as two discrete fields of inquiry: technology, and the history of society and culture. It could help encourage the creation of more interdisciplinary courses.

11. Is your proposal linked to any others being submitted in this competition? No

12. Has this course even been submitted for this grant in the past? No.

13. Has this course been funded by *this grant* in the past? No

14. Has this course or will this course be funded by *any other non-departmental source, e.g. CETL grant, non-university grants, etc*? No

A budget form is attached. A supporting email has already been sent by History Department Head Mark Healey