L. Lorenzen-Huber, K. Connelly. Shaping the next generation of gerontechnologists: Multidisciplinary gerontology vs. computer science. Gerontechnology 2008; 7(2):157. How can we best prepare the next generation of entrepreneurs and designers in gerontechnology? Does a multi- and interdisciplinary approach better equip students to understand the diverse needs of the aging population, or are they better served by a rigorous study of the technology? This paper compares the pedagogical design and outcomes of two separate courses in designing prototypes in gerontechnology. 'Health, Technology, and Aging' was designed to prepare non-business majors to develop skills in entrepreneurship in gerontechnology. 'Pervasive Computing' is a computer science (CS) course which emphasizes user-centered design of technology that is embedded into everyday environments such as homes, offices and public spaces. **Course Design** *Health, Technology, and Aging*. The multidisciplinary gerontology course was taught and offered through the academic units of gerontology, applied health science, nursing, kinesiology, informatics, and computer science. Students formed interdisciplinary teams to design a prototype of a technology to support the health and independence of older adults. The first half of the course introduced students to the universe of issues associated with aging and ethical use of technology to support aging well[1]. The second half of the course was devoted to the development of business plans for the prototypes, empowering students to become future entrepreneurs in gerontechnology. The course concluded with formal business plan presentations to a forum of entrepreneurs, venture capitalists, business professionals and faculty, with the potential of funding for successful presentations. *Pervasive Computing*. This graduate level course brought together students in the Human-Computer Interaction and Design (HCI/D) program and the computer science department to study the technical and social aspects of pervasive computing. Class time was devoted to discussing seminal papers in the broad area of pervasive computing, learning research methods (for instance, how to write a questionnaire, how to interview and how to analyze data), and becoming proficient with some of the available technologies (for instance, sensors, displays and mobile devices)[2]. The bulk of the students' grades, however, was determined by a course project on using pervasive computing to support elders as they age. The students formed teams of 3-5, with at least one student from HCI/D and one from CS. Only one lecture focused on aging, with the students expected to perform additional background research on their own (i.e., looking for related literature and speaking to domain experts and the user population). Teams produced a requirements document, a design document, a prototype and an evaluation plan over the course of the semester. **Results** A discussion of the results compares the breadth and depth of functionalities of the prototypes from the two courses, the effect of grounding of both courses in the concept of successful aging rather than meeting needs of frail elderly, and a cohort/period effect which resulted in a focus on social connection over personal safety and health monitoring in the majority of the prototypes (*Table 1*).

References

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Table 1. Domains addressed in teams' final prototypes; Total projects (n=8)

Course	Social Connection	Healthy Lifestyles	Personal Safety	Health Monitoring	Support for Daily Activities
Multidisciplinary n=4	3	3	2	2	3
Computer Science n=4	3	2	0	1	4