Invites you to a seminar by:

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*Badges, Points and More . . . Engaging the Next Generation of Chemical Engineering Students*

Games are ubiquitous within our surroundings today. Most often they are associated with social activities or what is considered to be “play”. However, there are many properties of games that have benefit to educational settings and can provide an opportunity to engage learners while pushing them to explore difficult technical concepts. Games are unique from other educational strategies in that they provide players with a goal, a set of rules or instructions for reaching this goal and then immediate feedback on the player’s performance. In addition, the feedback provided within the game is meant as a learning experience for the player to help them achieve the goal which in turn motivates the player to attempt to reach this goal once again. Although many types of games have been used in education, it has only been recently that we have seen significant changes in the number of publications documenting use of games within engineering contexts. One significant deficit in these publications is the limited number of studies that seek to measure the impact the game implementation has on learning outcomes. This research presentation will examine two studies that have been performed on the use of games within an engineering context. The first study investigates the impact that games can have on students’ perception of the classroom environment and their ability to achieve student learning outcomes. The second study explores the use of epistemic games as a means for students to develop their entrepreneurial mindset and develop a stronger understanding of the product design process. These preliminary studies contribute to building the knowledge base of game-based learning within engineering which over time will provide the necessary evidence to document its effectiveness and enable broader utilization of this powerful learning strategy.

**THURSDAY, APRIL 2, 2015**

9:30am, Institute of Material Science, Room 20

*Refreshments will be served at 9:15am*
BIOGRAPHY:

Cheryl A. Bodnar, PhD, CTDP is an Assistant Professor (Teaching Track) in the Department of Chemical and Petroleum Engineering at the University of Pittsburgh. She has also obtained her certification as a Training and Development Professional (CTDP) from the Canadian Society for Training and Development (CSTD) providing her with a solid background in instructional design, facilitation and evaluation.

Dr. Bodnar’s research interests relate to the incorporation of active learning techniques in undergraduate classes with particular emphasis on game based learning as well as integration of innovation and entrepreneurship into the engineering curriculum. She is also actively engaged in the development of a variety of informal science education approaches with the goal of exciting and teaching K-12 students about regenerative medicine and its potential.