PA 5712 Science to Action: All Paths

Syllabus Spring 2018

Instructor:

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Office Hours: Thursdays 10 am – 12 noon, or by appointment

Introduction

This course starts with the premise that the student may at some future point be either a leader or an analyst with respect to how science is translated into action. Although no one method of translating science to action is guaranteed to succeed, many organizations have been using widely accepted methods in the private and public sector for developing innovative solutions that connect what we know with the needs of our global fellow citizens. In teams, students will choose a problem amenable to a science-informed solution, research the needs of the people at the center of the problem and develop alternative strategies for meeting those needs that follow for-profit, social and public action pathways. In 2018, one problem will be generated by the City of Ramsey through the University of Minnesota’s Resilient Communities Project.

Student Learning Objectives

1. Acquire hands-on practice with and understanding of recognized methods for leading science into action, including: identifying user needs, developing user empathy, generating a value proposition, applying lean startup and business model generation methods to for-profit ventures and social ventures, and developing public action campaigns.
2. Design science to action solutions that incorporate one or more of the above methods and reflect an understanding of theory of change, complex systems, and implementation challenges
3. Practice evaluation of the methods in use in light of prominent theories related to translating science to action, including participatory methods, deliberation and ethical and democratic constraints on expert-led solutions
4. Use graphic applications and other methods to communicate ideas
5. Collaborate effectively in a small team
University Policies

The University of Minnesota has policies on student conduct, use of personal electronic devices, scholastic dishonesty, makeup work, sexual harassment, equity and diversity, disability accommodation, mental health and stress, and academic freedom. Please become familiar with these policies. They can be found at this link: http://policy.umn.edu/education/syllabusrequirements-appa

Course Requirements

1. Readings: The readings will be identified in the course schedule and posted to the course Moodle site.

2. Class discussion: Participation in class includes attendance and active engagement in class discussions. 15% of course grade.

3. Team Assignments: I will provide qualitative feedback on intermediate assignments that contribute to the development of the three end products assignments; I will not separately grade each intermediate component. 60% of course grade
   a. Value Proposition Canvas and Business Model Canvas – for-profit. The intermediate products are an empathy map, user persona descriptions and a problem statement. 20%
   b. Business Model Canvas – social venture. 20%
   c. Public Action Campaign Plan. The intermediate products include a theory of change and an influence map. 20%

4. Team presentation on the three science to action strategies 15%

5. Individual reflections: There will be two short individual reflection papers of no more than 750 words in which I will ask you to comment on lessons learned and the contrasts of developing science to action strategies for three different pathways. 10% (5% for each reflection)

Course Schedule

See the course schedule for readings and assignment due dates