Bodies and Buildings Syllabus
(draft as of 11/28/2012)

NYU ITP Spring 2013

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Mondays 11:00 – 1:55.

Why is it so hard to care for our planet and ourselves. We seem hungover from a century of prosperity and ingenuity, unable to invent economic models that create jobs, improve health, and restore the earth. Eager ITP students are better equipped than MBAs to envision and hack our way out of this trap, but often lack an understanding of the mega forces of business, regulation, and bad cultural habits that keep us from saving ourselves. But don’t despair! We’ll get busy, and make things again – but also provide you with conceptual scaffolding upon which to build your worldchanging ideas.

Our tools of understanding include deep design thinking, and systems thinking. By focusing on two systems in particular: human bodies, and the buildings that humans make, we will examine the environmental and social impacts of the economic systems. Bodies are in trouble right now – despite reaching the peak of productivity the US now leads the world in the rampant growth of chronic diseases that lower life expectancy, and reduce life quality. Buildings are not in enough trouble – they account for the largest source of both electricity consumption (68% of global use) and greenhouse gas emissions (48% of global emissions) in the world.

In this course we will discover what Dana Meadows calls “leverage points” as places to intervene that would transform the system as a whole.

Goals:

This is a lecture course, and the syllabus is built to provide students with a systems thinking approach to problem solving. The objective for the final presentations is for students to generate a concept that can be applied to improve human health, building health, or both. The goal is for students to articulate a solution, and argue persuasively for ideas to become reality (vs. moving straight to working prototype in usual ITP fashion). Assignments will involve in person class presentation, and class participation is required. The course is structured to provide iterative opportunities to build and strengthen ideas – rooted in user-centered design, grounded in the realities of sustainable cost models and growth plans, strengthened by students’ ability to stand up and tell their stories.

Grading:

ITP grades on a pass/fail basis. This class is weighted as follows:

Documentation: 20%

Constructive critique and participation in class discussions: 40%
Final presentation: 40%

Office Hours:
To be announced

Class Schedule:

1. Introduction to systems thinking
   Reading: Leverage Points: Places to Intervene in a System

Part 1: Bodies

2. Bodies – The Obesity Epidemic
   Reading: 2012 World Happiness Report
   Mindfulness and the Quantified Self

3. Bodies – The Open Health Data Movement
   Reading: US CTO seeks to scale agile thinking and open data across federal government
   Background: Review http://www.data.gov/
   Video: Anything with US CTO Todd Park (formerly CTO HHS) on open data and health care, such as this one: Changing Behavior and Changing Policies: Todd Park

4. Bodies – Beginning of Life Care, End of Life Care
   Selected Readings from Wit: A Play by Margaret Edson. 1999. Faber and Faber.
   (5 minute in class presentations and feedback)

Part 2: Buildings

6. Clean Tech Failures, Clean Tech Long Term View
   Reading: Why the Clean Tech Boom Went Bust by Juliet Eilperin, Wired
   Transforming Clean Tech into Main Tech by Vinod Khosla, Forbes

7. LEED and the Passive House Movement
   TBD Readings

8. Field Trip: Passive House(s)
   TBD – on site visit to a passive house build or retrofit
9. Generative Architecture, Responsive Design

Readings from: Shaping Things by Bruce Sterling.

The Architecture of a Well-Tempered Environment by Reyner Banham.

Phase 3: Concept Development and Final Presentations

10. Concept strengthening – design thinking exercises, business case building

11. Final Presentations (1) with guest critics

12. Final Presentations (2) with guest critics

Note: Guest lecturers and critics from industry, government, finance, and architecture will be invited for vivid discussion and to provide real-world grounding in our thinking and approaches.