Stanford Continuing Studies

Preliminary Course Syllabus: Summer 2016

Course Title: Principles of Invention and Innovation: A Toolkit for Generating Breakthrough Ideas

Course Code: BUS 74

Instructor: Eugene Shteyn

Dates:

This course will meet from 7:00-8:50 pm every Monday night for five weeks, beginning on June 20 and ending on July 25 (no class on July 4). In addition, we will have a full-day workshop on Saturday, July 30.

Course Summary:

This course is designed to help students acquire new problem-solving skills in business and technology. We are going to explore and apply systematic methods for discovering, analyzing, and solving high-value problems. In addition, we will learn how to integrate the systematic approach to invention and innovation with Design Thinking, Agile design, and Lean Startup methods.

Grade Options and Requirements:

- No Grade Requested (NGR)
  - This is the default option. No work will be required; no credit shall be received; no proof of attendance can be provided.
- Credit/No Credit (CR/NC)
  - Score will be determined by student attendance and participation.
- Letter Grade (A, B, C, D, No Pass)
  - In addition to attendance and participation, the final paper (a 3-page written report) will determine a student’s grade.

Key Objectives:

1. Strengthen participants’ ability to invent and innovate:
   - focus on high-value problems
   - transition from ad-hoc approach to proactive, scalable innovation methods
   - learn patterns of inventions and apply them in problem-solving
- develop flexible multi-level ("outside the box") thinking

2. Have a fascinating, productive time

- hands-on invention experience: learn by doing

- network with other participants to create better ideas

**Organization:**
This is a lecture/lab course in which the instructor introduces concepts, describes modern invention/innovation methods, and guides students through interactive brainstorming sessions. The course includes five two-hour classes and a full-day invention workshop. The students are split into several groups. Using methods learned during face-to-face sessions, they work in class and off-line to identify high-value problems and develop initial ideas. By the last session, the most promising problem is selected by the class and solved during the workshop. This course format enables participants to learn by doing and helps them leverage each other’s creative and professional skills. There are no prerequisites for the course. Nevertheless, students are expected to be familiar with general innovation topics such as inventions, brainstorming, startups, business methods, etc.

**Videos:**

1. BBC News. Wild crows inhabiting the city use it to their advantage.  
   [http://www.youtube.com/watch?v=BGPGknnpq3e0](http://www.youtube.com/watch?v=BGPGknnpq3e0)

   [http://www.youtube.com/watch?v=kN0SVBCJqLs](http://www.youtube.com/watch?v=kN0SVBCJqLs)

3. Everything is Remix Part 3.  
   [http://www.youtube.com/watch?v=wq5D43qAsVg](http://www.youtube.com/watch?v=wq5D43qAsVg)