**Foundations of Innovation**

Curriculum for Spring 2020

Room Uris 331, Columbia Business School

Instructor: Professor Melanie Brucks

Uris 502

mb4598@gsb.columbia.edu

**Course Description**

The ability to innovate plays a pivotal role in the growth and success of many areas of business. In this course, we tackle the challenge of bringing to market elegant and efficient solutions to strong customer needs. This challenge is relevant whether you work for a startup or a large company, whether you sell products or services, and whether your customers are individual consumers or companies. Throughout the course, we will provide methodologies, strategies, and tools (such as design thinking and iterative prototyping) structured around the basic steps of the innovation process:

1. Opportunity/Problem Identification
2. Idea Generation
3. Design
4. Prototyping and Testing
5. Launch

This class focuses on customer-centric innovation. The tools we cover come from the world of corporate innovation but can be applicable to entrepreneurs. After all, at the end of the day, you will be dealing with customers regardless of your company’s size.

**Objectives**

1. Strengthen your individual and collaborative capabilities to identify customer needs using a multimethod approach, including both qualitative and quantitative data analysis.
2. Provide a framework to help you to construct sound concept hypotheses and a develop a prototype that allows for meaningful feedback in a real-world environment.
3. Help you translate broadly defined opportunities into actionable innovation possibilities and recommendations for client organizations.

**Project**

In this class, you will actively learn about the innovation process by developing a new product/service! A set of projects will be offered by companies. You will select your project (and form teams of 4 to 6 students) based on company presentations. Representatives from the company will attend your final presentations at the end of the course. Alternatively, you may propose your own project (e.g., startup idea).

**Grading**

Class Participation (20%)

Case/Reading Questions (20%)

Project Assignments (20%)

Final Project (40%)

**Outline**

**Pre-Class Preparation**

**Individual Homework:** Read about company projects; submit Bugaboo case answers

**Week 1: Opportunity/ Problem Identification (Jan 30)**

Class overview, introduction to project

Bugaboo Case (observational research)

**Group Homework**: submit your group names (must be at least 5 members, no more than 6); **Individual Homework**: submit reading answers

**Week 2: Opportunity/ Problem Identification (Feb 6)**

Design thinking workshop

*In-class group work*: collecting observations

**Individual Homework**: collect observations, submit individual empathy map; submit reading answers

**Week 3: Opportunity/ Problem Identification (Feb 13)**

Design thinking workshop

Market segmentation/differentiation

*In-class group work*: making empathy map

**Group Homework**: submit four identified problems

**Individual Homework:** submit reading answers

**Week 4: Ideation (Feb 20)**

Ideation strategies

Blue Ocean Strategy

*In-class group work*: apply these strategies to project

**Individual Homework:** submit reading answers

**Week 5: Ideation (Feb 27)**

Ideation templates

*In-class group work*: apply these strategies to project

**Group Homework**: submit eight ideas

**Individual Homework:** submit reading answers

**Week 6: Evaluation (Mar 5)**

Idea selection

Development/ positioning statement

*In-class group work*: select two ideas and develop business model canvas

**Group Homework**: submit a positioning statement for two ideas

**Week 7: Ideation to Prototyping (Mar 26)**

Prototyping workshop

*In-class group work*: prototyping solution for project

**Individual Homework:** submit reading answers

**Weeks 8 and 9: Evaluation and Design (April 2 and April 9)\*\***

\*\*Half of students will go into the maker space on April 2, the other half of students will go into the maker space on April 9

Class:

Survey Design

Maker Space:

*In-class group work*: prototyping in maker space

**Group Homework**: submit evaluation plan

**Individual Homework:** submit reading answers

**Week 10: Launch Prep (April 16)**

Concept Testing + Prediction Markets + Neuromarketing

*In-class group work*: testing the prototypes

**Week 11: Presentation Prep (April 23)**

*In-class group work*: presentations

**Week 12: Presentation (April 30)**

Presentations with clients

**Group Homework**: submit annotated slide deck

**List of Readings**

Week 1:

* Levav, Jonathan, and Olivier Toubia (2008), “Bugaboo International,” Columbia CaseWorks.
* Yohn, Densie L. (2019), “Why Great Innovation Needs Great Marketing,” Harvard Business Review.

Week 2:

* Kolko, John (2015), “Design Thinking Comes of Age,” Harvard Business Review.

Week 3:

* Christensen, Clayton M., Scott Cook, and Taddy Hall (2005), “Marketing Malpractice: The Cause and the Cure,” Harvard Business Review.

Week 4:

* Kim, W. Chan, and Renée Mauborgne (2004), “Blue Ocean Strategy,” Harvard Business Review.

Week 5:

* Fisher, Anne (2007), “Ideas Made Here,” Fortune.
* Goldenberg, Jacob, Roni Horowitz, Amnon Levav, and David Mazursky (2003), “Finding your Innovation Sweet Spot,” Harvard Business Review.
* Grant, Adam “The Daily Show’s Secret to Creativity” (2018), <https://podcasts.apple.com/us/podcast/creative-burstiness-at-the-daily-show/id1346314086?i=1000405268582&mt=2>

Week 6:

* Simon, Ruth (2014), “One Week, 3,000 Product Ideas,” The Wall Street Journal.

Week 8:

* Toubia, Olivier, “Columbia Business School Case: VerTerra.”

Week 10:

* Dye, Renée (2008), “The Promise of Prediction Markets: A Roundtable,” TheMcKinsey Quarterly.
* Penenberg, Adam, Clive (2011), “NeuroFocus Uses Neuromarketing To Hack Your Brain,” Fast Company.