Foundations of Innovation

Curriculum for Spring 2021
Columbia Business School
Instructor: Professor Melanie Brucks
mb4598@gsb.columbia.edu

TA: Alisa Wu
YWu23@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 important customer needs. This challenge is relevant whether you work for a startup or a large company, whether you sell products or services, or 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. 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 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 on the first day. 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.
Grading

Class Participation (35%)
Case/Reading Questions (Individual) (15%)
Project Assignments (Group) (15%)
Final Project (Group) (35%)

Individual Assignments

<table>
<thead>
<tr>
<th>Due On</th>
<th>For Week</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 11</td>
<td>1</td>
<td>Read project briefs; Bugaboo Case Answers</td>
</tr>
<tr>
<td>Jan 24</td>
<td>2</td>
<td>Interview Prospects</td>
</tr>
<tr>
<td>Jan 31</td>
<td>3</td>
<td>Individual empathy map</td>
</tr>
<tr>
<td>Feb 7</td>
<td>4</td>
<td>Job to Be Done Reading Response</td>
</tr>
<tr>
<td>Feb 14</td>
<td>5</td>
<td>Blue Ocean and Ideation Technique Answers</td>
</tr>
<tr>
<td>Feb 21</td>
<td>6</td>
<td>Template Reading Response</td>
</tr>
<tr>
<td>Mar 7</td>
<td>7</td>
<td>Idea Selection Answers</td>
</tr>
<tr>
<td>Mar 14</td>
<td>8</td>
<td>VerTerra Case Answers</td>
</tr>
</tbody>
</table>

Group Assignments

<table>
<thead>
<tr>
<th>Due On</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 18</td>
<td>Determine your project &amp; group (submit group names)</td>
</tr>
<tr>
<td>Feb 7</td>
<td>Submit group empathy map</td>
</tr>
<tr>
<td>Feb 11</td>
<td>Submit four identified problems</td>
</tr>
<tr>
<td>Mar 3</td>
<td>Submit eight ideas</td>
</tr>
<tr>
<td>Mar 14</td>
<td>Submit two positioning statements</td>
</tr>
<tr>
<td>Mar 26</td>
<td>Schedule a meeting with me</td>
</tr>
<tr>
<td>Apr 15</td>
<td>Annotated slide deck</td>
</tr>
</tbody>
</table>

Outline

Week 1: Underlying Need Identification (Jan 11)
Class overview, introduction to project; Bugaboo Case (observational research)
Individual Assignment Due: Read about company projects; Bugaboo case answers

Week 2: Underlying Need Identification (Jan 25)
Design thinking workshop & Interview Techniques; Guest Speaker: Play Lab at Fisher-Price
In-class group work: collecting observations
Individual Assignment Due: Interview Prospects
Group Assignment Due: submit your group names (at least 5 members, no more than 6)

Week 3: Underlying Need Identification (Feb 1)
In-class group work: making group empathy map
Suzy (market research tool) presentation & how to ask questions
Individual Assignment Due: collect observations, submit individual empathy map
Week 4: Underlying Need Identification (Feb 8)
Market segmentation/differentiation
Guest Speaker: Identifying Diverse Consumer Needs
**Group Assignment Due:** submit group empathy map
**Individual Assignment Due:** Job to Be Done answers

Week 5: Ideation (Feb 15)
Blue Ocean Strategy
Ideation strategies
*In-class group work:* apply these strategies to project
**Group Assignment Due:** submit four identified problems
**Individual Assignment Due:** submit Blue Ocean and Ideation Technique answers

Week 6: Ideation (Feb 22)
Ideation templates
*In-class group work:* apply these strategies to project
**Individual Assignment Due:** submit Ideation Template answers

Week 7: Evaluation (Mar 8)
Idea selection
*In-class group work:* select two ideas
**Individual Assignment Due:** submit Idea Selection answers

Week 8: Development (Mar 15)
Prototyping workshop
Solution Validation + Concept Testing
*In-class group work:* prototyping solution for project
**Individual Assignment Due:** VerTerra case answers

Week 9: Design (Mar 22)
Guest Speaker: Innovating During COVID-19
Business model canvas and positioning statement
*In-class group work:* Work on positioning statement & concept testing

Week 10: Design & Validation (March 29)
*In-class group work:* work on prototype & validation
**Group Assignment Due:** submit two positioning statements
**Group Assignment Due:** Schedule a meeting with me

Week 11: Launch and Presentation Prep (April 5)
Nontraditional marketing
*In-class group work:* work on presentation

Week 12: Presentation (April 12)
Presentations with clients
**Group Assignment due on April 15:** submit annotated slide deck
List of Readings

Week 1:

Week 2:

Week 4:

Week 5:
• Grant, Adam “The Daily Show’s Secret to Creativity” (2018), [Insert the podcast link here]
• https://insight.kellogg.northwestern.edu/article/boost-creativity-brainstorm-embarrassment

Week 6:

Week 7:
• [Insert the Stanford Insight link here]
• [Insert the Fast Company link here]

Week 8:
• Toubia, Olivier, “Columbia Business School Case: VerTerra.”

Week 10: