NYU Stern

INNOVATION & DESIGN SYLLABUS*
* Previously listed as “Creativity & Design”

Professor: Luke Williams
lwilliam@stern.nyu.edu
Fall 2008, Thursdays 6-9 pm
Office Hours: Thursday 4-5 and by appointment

COURSE DESCRIPTION

Creativity and innovation are the key drivers of success for many of today’s leading companies. Some of the most dramatic gains in shareholder value over the last few years (e.g., Google, Apple) are due to a culture of creative innovation. Indeed, a culture of creativity and innovation is commonly recognized as the only sustainable competitive advantage. An important element of a creative culture is the use of breakthrough design thinking. Design represents a powerful alternative to the dominant management approaches of the last few decades and is an important perspective for business leaders to embrace.

This course will focus on developing new ways of thinking, which are different from those typically learned in MBA programs. The course provides many opportunities to apply these new ways of thinking through class exercises and a course project, where you will develop creative concepts for an assigned topic. The project will follow the phases conducted by an innovation consulting firm to synthesize real-time research, and approach ideation and investigation on parallel tracks. Teams will present their work at the end of three project phases and vote on each other’s presentations.

Course Material on Stern Web Site

A course web site is available on Blackboard, http://sternclasses.nyu.edu. This site contains the course syllabus. Powerpoint presentations and other handouts will be posted after each class.

Course Objectives

The premises of this course are that (i) all people are naturally creative and (ii) everyone’s creative abilities can be improved (just like all of your other abilities) through learning and practicing certain skills and techniques. The course is intended for students who want to enhance their innovation and design thinking.
skills in business and other domains. More specifically, the course is designed to help students:

1. Stimulate creativity in yourself and others.

2. Incorporate design thinking into your analysis of business situations.

3. Apply creative and design thinking to a real-world business situation.

4. Learn how to build and lead an innovation team.

Suggested Reading

- *How Customers Think: Essential Insights into the Mind of the Market* – Gerald Zaltman
- *Serious Play: How the World’s Best Companies Simulate to Innovate* – Michael Schrage
- *Five Minds for the Future* – Howard Gardner

Further Reading
A reference list of many other books on creativity, innovation, and design is toward the back of the syllabus.

Course Grade
Your course grade is based on the following components:

<table>
<thead>
<tr>
<th>Group Project</th>
<th>Discovery Phase Presentation and Document</th>
<th>30%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Design Phase Presentation and Document</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Delivery Phase Presentation and Document</td>
<td>20%</td>
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</tbody>
</table>

Class Participation 20%

Grades for your project and presentation will incorporate peer evaluations.

Course Content
The course uses a combination of:
1. Lectures and Readings
2. Group Project
3. Class Participation and In-Class Exercises
1. Lectures and Readings
Lectures and readings introduce new tools, frameworks, and concepts. Lectures will be interactive, so be prepared to ask and answer questions. Some lectures may include outside speakers.

2. Group Project
The group project will focus on a process used to describe a way of thinking and a set of key outputs and deliverables associated with creative concept exploration and development. To do this, students will talk to real users; observe people in their native environments; think about real physical, technical, and social constraints; and understand real market pressures. This process will yield innovative experience concepts that have the potential to be buildable, create traction in the marketplace, and forge emotional connections with users. The group project will be used as the basis for the collaborative working sessions.

Group Project Goal
The goal of the project is to discover insights, design concepts, and visually communicate an experience using creative methods and research heuristics. The project task is to create a market- and technology-appropriate consumer experience that creates an innovation opportunity for an assigned client and industry.

Group Project Teams
Students will work in teams of four (preferably) or three. We will randomly assign teams at the beginning of three project phases. Our purpose is to give you experience working in a variety of diverse, creative teams. Diverse backgrounds and divergent thinking skills promote creativity. You will be assigned to three different teams over the three project phases.

Group Work
The greatest cause of disappointing team assignments is the inability to coordinate work effectively. Some ways to prevent this occurrence are:

1. Choose team members who can meet at times that are convenient for other team members.

2. Take notes of your meetings so your decisions and assignments are clear.

3. Plan sufficient time to discuss your analyses, make decisions, and prepare the final presentation and report.

We can help resolve team conflicts, but the final responsibility is yours. Teams may issue a written warning to any student who is not contributing fairly or
constructively. This warning should state the problems and list specific steps to resolve these problems. All other members of the group should sign the warning and you should give a copy to us. At the end of each project stage, you will evaluate the relative contribution of your team members.

4. Class Participation and In-Class Exercises
The best learning experiences occur when students participate actively. We will have several in-class exercises throughout the semester. These will require you to think creatively. Please set aside your inhibitions and enjoy yourself. These exercises give you the opportunity to stretch your creative cognition skills.

These are elements we will consider in evaluating your class participation:
1. Are you a good listener?
2. Are you willing to test new ideas and new ways of thinking?
3. Do you promote an environment where everyone feels free to express their ideas and stretch their thinking?
4. Do you contribute to the learning environment by sharing your thoughts and experiences?
5. Do you ask constructive questions of other students that help to deepen everyone’s understanding?
6. Are you willing to share ideas and information in a collegial fashion?
7. Are you willing to interact with your classmates to help refine ideas?
8. Do your comments build on earlier comments to advance the discussion?
9. Do your comments incorporate concepts presented in lectures, readings, and earlier classes?
10. Do you make your points succinctly?

5. Design Notebook
At the beginning of the first class, you will be given a notebook. Please use this notebook throughout the semester to record your insights from the course, your observations and insights on the course project, and any other creative insights you have throughout the semester on any topic. The notebook will be a personal record of your creative activity throughout the semester. You should approach this mental exercise with the same energy you would devote to physical exercise when training for a sporting event. When writing about course material, please record the key points plus your thoughts about all of our in-class exercises and ideas you have that relate to the course project. Beyond course material, please record anything you find creative, spontaneous, exciting, challenging, troubling, etc. You can capture your insights and ideas in writing, pictures, drawings, or any other visual representation that you can think of. The notebook is for your personal use. It will not be evaluated as part of your course grade.

Administration
1. Students are expected to attend every class from 6-9 pm. If you cannot attend a class, please send a report of your class preparation prior to the class you’re missing in order to receive partial credit for class participation.

2. Please complete all readings before class and hand in all assignments at the beginning of class. Late assignments will be downgraded.

3. Please minimize disturbances during class, i.e., talking, arriving late, leaving the room, etc.

4. Laptops may not be used during lectures and discussions but are fine to use during the break-out sessions when you’re working on the course project.

5. Students are expected to adhere to the school’s honor code. Please ask us if you have any questions about how the honor code applies to a specific situation.

6. No extra credit assignments will be given.

7. Deviations from the syllabus may be necessary.
# COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignment</th>
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<tbody>
<tr>
<td><strong>September 24</strong></td>
<td><strong>Introduction and Project Assignment</strong></td>
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<td>Course Overview</td>
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<td></td>
<td>The Need for Creative and Design Thinking</td>
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<td></td>
<td>Mental Models of Creativity</td>
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<tr>
<td></td>
<td>Assign Teams and Introduce Project</td>
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<tr>
<td><strong>October 1</strong></td>
<td><strong>Discovery Phase: Insights Generation</strong></td>
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<tr>
<td></td>
<td>Design Research Lecture</td>
<td><strong>Core Project:</strong> Bring 10 key observations from secondary research on the assigned project.</td>
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<tr>
<td></td>
<td>Guest lecture*</td>
<td><strong>Core Project:</strong> Begin to prepare a research plan outline using the template provided.</td>
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<td>(*Guest lecture dates may change due to availability)</td>
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<tr>
<td></td>
<td>Group Project work</td>
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<tr>
<td></td>
<td>(Preparing a research plan)</td>
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<tr>
<td><strong>October 8</strong></td>
<td><strong>Core Project:</strong> Complete research plan.</td>
<td>During class, each group should capture 15 key observations using the template provided.</td>
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<td>In-Field Observation Research (Offsite)</td>
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<td>Informal Intercept Interviews (Offsite)</td>
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<tr>
<td><strong>October 15</strong></td>
<td><strong>Research Synthesis Lecture</strong></td>
<td><strong>Core Project:</strong> Each group should generate and articulate 5 key insights and prepare discovery phase findings document using the template provided.</td>
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<tr>
<td></td>
<td>Group Project work</td>
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<tr>
<td></td>
<td>(Synthesizing research findings)</td>
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<tr>
<td><strong>October 22</strong></td>
<td><strong>Presentation of Discovery Phase findings (each group presents)</strong></td>
<td>Prepare Presentation</td>
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<td></td>
<td>Group members re-assigned to other groups</td>
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## Design Phase: Concept Generation

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Core Project:</th>
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<tbody>
<tr>
<td>October 29</td>
<td>Creative Thinking and Methods Lecture Guest lecture* (*Guest lecture dates may change due to availability)</td>
<td>Each new group should articulate 3 focus areas to be used for concept exploration.</td>
</tr>
<tr>
<td>November 5</td>
<td>Concept Exploration Workshop #1 Group Project work (Using creative thinking tools to generate ideas and concepts)</td>
<td>Each group should generate 3 concepts using the worksheets provided.</td>
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<tr>
<td>November 12</td>
<td>Concept Exploration Workshop #2 Group Project work (Using creative thinking tools to generate ideas and concepts)</td>
<td>Each group should generate 3 concepts using the worksheets provided.</td>
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<tr>
<td>November 19</td>
<td>Presentation of Design Phase findings (each group presents) Group members re-assigned to other groups</td>
<td>Each group should refine and present 3 prioritized concepts resulting from their workshop activities.</td>
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<tr>
<td>November 26</td>
<td>No Class</td>
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## Delivery Phase: Concept Definition

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Core Project:</th>
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<tbody>
<tr>
<td>December 3</td>
<td>Concept Visualization &amp; Prototyping Workshop Group Project work (Creating low-fidelity prototypes)</td>
<td>Each group should create one final prototype for use in their user scenario.</td>
</tr>
<tr>
<td>December 10</td>
<td>Designing User Scenarios Lecture Group Project Work (Creating a scenario storyboard)</td>
<td>Each group should create a User Scenario Storyboard using the template provided for their one concept prototype.</td>
</tr>
<tr>
<td>December 17</td>
<td>Presentation of Delivery Phase Prototype and Scenario Storyboard (each group presents)</td>
<td>Prepare Presentation</td>
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</tbody>
</table>
Readings on Creativity, Innovation, and Design


2. Design Research: Methods and Perspectives, edited by Brenda Laurel


Evaluation of Team Members

Phase 3: Delivery

Please fill out this form and turn it in after your presentation on December 17.

Please rate your teammates (but not yourself) on the following criteria. Your individual evaluations will not be shared with your teammates, but each of you will receive your average rating on each criterion.

1. Contributes good ideas to the project.
2. Performs fair share of the work.
3. I’d like to work with this person again. (We’ll be mixing teams after each phase, but would still like your evaluation on this criterion.)

If your individual performance is considerably stronger or weaker than your teammates, your grade on the team assignment will be adjusted by a half-letter grade, or even more in extreme cases. We will let you know if your team grade has been adjusted when we return your individual ratings (averaged across your teammates).

In the space below, please fill in the names of your team members (not yourself) and rate each person on the three criteria above. Ratings are an allocation of 100 points on each criterion. Please print your name at the bottom and return the form to one of us on the night of your presentation.

<table>
<thead>
<tr>
<th>Teammates</th>
<th>Good ideas</th>
<th>Fair share</th>
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<td>Total</td>
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Evaluation of Team Members

Phase 2: Design

Please fill out this form and turn it in after your presentation on November 19.

Please rate your teammates (but not yourself) on the following criteria. Your individual evaluations will not be shared with your teammates, but each of you will receive your average rating on each criterion.

1. Contributes good ideas to the project.
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<td>Total</td>
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Evaluation of Team Members

Phase 1: Discovery

Please fill out this form and turn it in after your presentation on October 22.

Please rate your teammates (but not yourself) on the following criteria. Your individual evaluations will not be shared with your teammates, but each of you will receive your average rating on each criterion.

1. Contributes good ideas to the project.
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STUDENT INFORMATION SHEET

Name: ________________________________

Preferred First Name (if different): ________________________________

Specialization(s): ________________________________

Please list your current or previous employer and briefly describe your work.

Please list any related courses you have already taken on creativity, innovation, and design.

Why are you taking this course and what do you hope to learn?