

USC Iovine and Young Academy

Arts, Technology and the Business of Innovation

IDSN 550: Opportunity & Uncertainty

Units: 4.0

Office: Online

Office Hours: By Appointment

Course Description

Design, business, and technology often utilize different processes and/or methodologies of creativity and innovation through which opportunities might be realized and to address micro or macro, tacit or explicit problems. This course is constructed to help students understand and utilize the theories, methods, and tools that support opportunity recognition and evaluation, plus problem identification and framing. More specifically, the course is designed to enhance students' ability to (1) identify opportunities worth pursuing or problems worthy of analysis; (2) analyze and frame those opportunities or problems, as based on specifiable motivations or root causes; and (3) develop multiple prospective solutions or an initial solution amenable to longer term adaptation/iteration. Deployed techniques will be drawn from entrepreneurship, innovation strategy, design-based and arts-based creative practices, critical thinking methods, ethnography, and systems theory.

Learning Objectives

In conjunction with IDSN 545 Integrative Project (LAB), students in this course will develop skill in articulating perceived opportunities and in acquiring the information central to opportunity evaluation and advancement. Upon completing this course, students will be able to:

- Understand the portfolio of research and strategy methods available to those seeking to initiate and evaluate the potential of new ideas.
- Identify and articulate individual, social, organizational, technical, design, market, and other problems.
- Create and implement a comprehensive research plan, to ensure the acquisition of relevant data.
- Build, experiment with, and iterate upon a prototype as based on aggregated data.

Recommended Preparation

IDSN-510 Integrative Practices Residential; IDSN-540 Processes & Perspective

Course Notes

This course will be conducted online, using a combination of synchronous and asynchronous methods.

Technological Proficiency and Hardware/Software Required

Students must provide their own laptop. The laptop specifications take into consideration that students will be creating, streaming and downloading audio and video, communicating using video conferencing applications and creating and storing large multimedia files.

	Apple	Windows PC
Laptop (minimum standards)	<ul style="list-style-type: none"> • 2.6 GHz dual-core Intel Core i5 or 2.0 GHz quad-core Intel Core i7 • Minimum 13" display • 250GB Hard drive or larger • 8GB memory/16GB memory recommended 	<ul style="list-style-type: none"> • Intel Core i5 or Intel Core i7 • Minimum 14" display • 250GB Hard drive or larger • 8GB memory/16GB memory recommended
Warranty	<ul style="list-style-type: none"> • Manufacturer warranty or extended warranty coverage (AppleCare) 	<ul style="list-style-type: none"> • Manufacturer warranty or extended warranty coverage
Operating System	<ul style="list-style-type: none"> • Max OSX. Operating System or higher 	<ul style="list-style-type: none"> • Windows 7, 8, 10 Operating System or higher
Peripherals	<ul style="list-style-type: none"> • HD webcam, speakers and microphone (Most newer laptops have built-in webcam, speakers and microphone) • Headset • Digital camera (Cameras on newer smartphones are acceptable) • External drive for cloud account for backup and storage 	
Software	<ul style="list-style-type: none"> • Adobe Creative Cloud (Photoshop, Dreamweaver, Illustrator, and Acrobat) • Adobe Acrobat Reader • Microsoft Office Suite • Sophos Endpoint Security (Anti Virus) • Browser: Most recent version of Internet Explorer, Firefox, Chrome or Safari 	
Network	<ul style="list-style-type: none"> • Cable modem, DSL, T1/T3 or higher 	

Course Schedule

UNI T	TOPIC	ASSIGNMENTS	QUIZ
1	Introduction to Strategic Work, Language, and Value <ul style="list-style-type: none"> • Understanding Strategy Basics • Understanding Strategy at a High-Level • What is Strategy Video 	Writing Assignment: <ul style="list-style-type: none"> • Reflection: What is Strategy? 	Intro to Strategy Quiz

2	<p>Defining Innovation</p> <ul style="list-style-type: none"> • What is Innovation • Breakthrough Innovation • Basic Research • Disruptive Innovation • Sustaining Innovation • Review of Innovation Concepts • Innovation Matching Quiz 		Innovation Matching Quiz
3	<p>Finding and Framing Problems</p> <ul style="list-style-type: none"> • Intro to Finding and Framing Problems • Frame Creation Methodology Case Study • Introduction: Reframing Problems by Thomas Wedell-Wedellsborg • Reframing and Asking 	<p>Writing Assignment: What Needs to be Reframed?</p>	Frame Creation and Design Matching Quiz
4	<p>Design Thinking</p> <ul style="list-style-type: none"> • Overview of Design Thinking • The Ten Tools • Design Thinking Classic Case Study 	<p>Rapid Prototyping Assignment: Lunchbox Redesign (Presentation)</p>	
5	<p>Tools for Strategic Analysis</p> <ul style="list-style-type: none"> • Traditional Strategic Tools • Porter's 5-Force Analysis • Advanced Strategic Tools 	<p>Analysis Assignment: SWOT Analysis</p>	Strategic Consulting Tools Quiz
6	<p>Overview of Customer Ethnography and Capturing Inputs</p> <ul style="list-style-type: none"> • Researching in the Wild • Research Methods & Tools • Observations • Ethnographic Design Research 		Ethnography Terminology Quiz
7	<p>Scenario Planning</p> <ul style="list-style-type: none"> • Overview of Scenario Planning • The Approach and The Application • Tips and Limitations • Use of Scenarios 	<p>Writing Assignments:</p> <ul style="list-style-type: none"> • 2028 and You • What Comes After the Digital Age? 	

8	<p>Recognizing and Shaping Opportunities</p> <ul style="list-style-type: none"> • Recognizing and Shaping Opportunities • Profit Patterns • Fundamental Business Assumption 	<p>Writing Assignments:</p> <ul style="list-style-type: none"> • Profit Patterns • Fundamental Business Assumption 	<p>Video Knowledge Quiz</p>
9	<p>Customer Development</p> <ul style="list-style-type: none"> • Intro to the Customer Development Methodology • Step 1 - Customer Discovery • Step 2 - Customer Validation • Step 3 - Customer Creation • Step 4 - Company Building • Review of Customer Development 	<p>Writing Assignment:</p> <ul style="list-style-type: none"> • Get Out of the Building 	<p>Customer Development Quiz</p>
10	<p>Business Model Generation</p> <ul style="list-style-type: none"> • Overview of the Business Model Canvas • Business Model Environment Analysis • Additional Business Models • From Idea to Business - Animated Series 		<p>Business Model Canvas Matching Quiz</p>
11	<p>Rapid Development Processes</p> <ul style="list-style-type: none"> • Introduction to Rapid Development Processes • Lean Startup • Agile • Sprint 		<p>Rapid Development Processes Quiz</p>
12	<p>Stress Testing and Scaling Your Ideas</p> <ul style="list-style-type: none"> • Introduction to Stress Testing Your Ideas • Stress Testing Your Strategy • Scaling Your Innovation • Culture Shifts 	<p>Writing Assignment:</p> <p>What Are You in the Business of Today vs Tomorrow?</p>	<p>Stress Testing and Scaling Quiz</p>
13	<p>Entrepreneurship & Intrapreneurship</p> <ul style="list-style-type: none"> • Understanding Entrepreneurship • Understanding Intrapreneurship • Inspirational Videos 	<p>Profiles of Entrepreneurs:</p> <ul style="list-style-type: none"> • Presentation of an Innovator Who Changed the World 	
14	<p>Competing with Purpose</p> <ul style="list-style-type: none"> • The Nature of Competition • Techniques for Building Competitiveness 	<p>Writing Assignment:</p> <p>Jobs to be Done</p>	

	<ul style="list-style-type: none"> • Achieving Customer Focus • Competing with Purpose 		
15	No Asynchronous Material. The Live Session will be devoted to final presentations for 545 Integrated Project Lab. Office Hours will be available this week by appointment.		

Description and Assessment of Assignments

Below are brief overviews of each module’s assignment. If not specified, assignments will be submitted within the 2U Learning Management System (LMS). If you experience any technical difficulties submitting assignments, they can be e-mailed directly to your instructor. Additional assignment details will be provided separately.

Unit 1. Open Response

- Reflection: What is Strategy?

In your own words explain how a strategy is distinct from a goal or plan. Think of one example of an innovative strategy that helped a business or organization succeed in the face of uncertainty.

Unit 3. Writing Assignment

- What needs to be reframed?

What is a product, service, experience or institution that you think gravely needs to be reframed and rethought? What are they key core needs and issues that you would reframe and why?

Unit 4. Lunchbox Redesign

- Rapid Prototype Presentation

Rethink the form, function and usability of a lunchbox. Start by articulating what the key user pain-points and unmet needs are with current options in the market. Then do a quick brainstorm of new innovative ideas and solutions. Choose your best ideas and combine them into a concept that you will then create a physical rapid prototype to represent. This rapid prototype can be created from simple craft materials like paper, recycled goods, etc. Be ready to present your prototype to the class, including the key user pain points that your concept is trying to solve for.

In the LMS, upload a PDF version of your slide presentation that includes, but is not limited to the following:

- Catchy Concept Name
- Image of prototype and any key features
- Summary of idea
- Pain-points and needs you were trying to solve for
- Explanation of key features and user experience (where and how might this be best used?)
- At least 3 rough sketches of other brainstormed ideas that you came up with before you settled on the concept you prototyped

Unit 5. Written Analysis

- SWOT Analysis

Conduct a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis of your current company, business, or institution. If you do not have one, choose a current business that you are interested to analyze.

Unit 7. Writing Assignment

- 2028 and You...

In reference to the video you will be watching in this unit, do you agree with these predictions on how the world might be in 2028? What implications do they have on the future of your life and your current business or work?

- What comes after the digital age?

If we are currently living in the "digital and mobile age", what do you think the next age will be characterized by?

Unit 8. Writing Assignment: Shaping Opportunities

- Profit Patterns

What types of profit patterns are going on in the industry or environment you are designing for? Which patterns should you leverage and how might you take advantage of them?

- Fundamental Business Assumption

Does the fundamental business assumption of your idea challenge the current paradigm? If so, how does it challenge the current paradigm? If not, how will your idea be differentiated enough to compete against established players?

Unit 9. Writing Assignment: Customer Development

- What aspects of your ideas can you "Get Out of the Building" to test?
- What types of stakeholders and users should you test these aspects with?

Unit 12. Writing Assignment

- What are you in the business of today vs tomorrow?
 - A. How does your current organization define what they are in the business of? This might be publicly articulated or implied through actions and decisions.
 - B. In your opinion, does your current business definition need to change? What should it evolve to be in order to anticipate and stay relevant in the future?

Unit 13. Profiles of Entrepreneurship

- Contribute Profile of Innovators Who Have Changed the World

In order to collectively build a diverse collection of stories of global innovators and entrepreneurs, please add a profile of an individual that you believe has changed the world through their entrepreneurial actions and mindset. They need not be famous or widely known, in fact bonus points for shedding light on visionaries that are not the "usual suspects" (i.e. Elon Musk, Steve Jobs, Richard Branson, Mark Zuckerberg). Please include photos of the person and any other visuals that help tell their story. All submissions will be shared amongst your class.

In the LMS, upload a PDF version of your slide presentation that includes, but is not limited to the following:

- Name of Innovator
- Image of them
- Industry they impacted
- Organization or Ventures they are/were a part of
- A brief description of their background story
- What makes them entrepreneurial and the remarkable way they navigated uncharted territory or uncertainty?
- Bonus points for additional illustrative images

Unit 14. Writing Assignment

- Jobs-to-be-Done

Hundreds of millions of people around the world start their day with a cup (or a few cups) of coffee, and this habit also continues on throughout the day. Beyond the obvious job of caffeinating people's lives,

what are the other less obvious "jobs" that you think coffee accomplishes? Based on these "jobs" that people drink coffee for, what are other beverages, products, services, etc. that then compete with coffee?

Unit Quizzes

Embedded within 10 of the 15 units, students will complete a quiz (varied formats, including multiple choice, matching and short answer), in which they demonstrate their understanding of that week's materials. These quiz scores will make up 30% of their grade.

Participation

Throughout the semester, students will be expected to contribute to class in a variety of ways, including:

- Contribute thoughts, questions and ideas during live session discussions.
- Provide substantive and thoughtful feedback to questions posted, by peers and instructors, in specified online forums.
- Provide written and verbal responses during live, synchronous sessions.

Readings and Supplementary Materials

While not required, the following books served as fundamental source content for this course and it is recommended to read them for more in-depth knowledge and context:

Business Strategy: Managing Uncertainty, Opportunity, and Enterprise (J.-C. Spender)

Innovation as Usual: How to Help Your People Bring Great Ideas to Life (Paddy MillerThomas, Wedell-Wedellsborg)

On Competition (Michael Porter)

Blue Ocean Strategy (W. Chan Kim and Renée Mauborgne)

Disruptive Innovation (Clayton Christiansen)

The Art of Innovation (Tom Kelley)

Business Model Generation (Alexander Osterwalder, Yves Pigneur)

Crossing the Chasm (Geoffrey Moore)

The Lean Startup (Eric Ries)

Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days (Jake Knapp)

The Four Steps to the Epiphany (Steve Blank)

The Tao of Innovation (Teng-Kee Tan, Hsien-Yang Seow, Sue Tan Toyofuku)

Required reading will be drawn from textbooks, articles, papers, cases, and online publications (e.g., articles, op-ed essays) available through a host of available outlets; in all instances, the material will be delivered via computer. Students will also be required to view online videos, complete web-based, interactive exercises, and respond to peer and faculty comments (within an online discussion forum or group discussion). Students may also be asked by the instructor to review additional resources or

contemporary news stories posted to the LMS. Lectures, readings, viewings will be supplemented with current articles and audio/video content provided by relevant publications.

Grading Breakdown

As detailed above, this course is based on participation, quizzes and assignments, with a student expectation of attendance for all synchronous sessions.

CONTENT	POINTS	% OF GRADE
In Class Participation	150	15%
Quizzes (x10)	300	30%
Assignments (x12)	550	55%
TOTAL	1000	100%

Assignment Submission Policy

All assignments must be uploaded to the Learning Management System by **9:00 AM Pacific Time** on the date of Unit Live Session unless noted otherwise. No exceptions. (Early submissions are, of course, encouraged!)

- Deliverables that exceed maximum page or time length requirements will only be assessed up to (and not beyond) that limit.
- Read and heed supplementary Assignment Details, distributed when each assignment is launched, carefully.

All assignments, no matter how late, must be completed in order to pass this class.

Assignments will be accepted after the deadline with the following grade penalties. Do not ask for extensions; the below *are* the extensions.

- Submission in the 24 hours after the deadline 10% deduction
- Submission between 24 and 48 hours after the deadline 20% deduction
- Submission between 48 hours and 3 days after the deadline 50% deduction
- Submission more than 3 days after the deadline 100% deduction

Keep copies of all your files and emails until the end of the semester.

Correcting a Grading Error or Disputing a Grade

If you don't inform the instructor of missing or incorrect grades within two weeks of those grades being posted, the grades will be assumed correct. Do not wait until the semester's end to check or appeal any grades. If you feel a grade merits re-evaluation, you are encouraged, within one week of the instructor providing a grade and initial feedback, to send the instructor a memo in which you request reconsideration. The memo should include a thoughtful and professional explanation of your concerns.

Be aware that the reevaluation process can result in three types of grade adjustments: positive, none, or negative. (Note: Complaints on the date of a graded assignment's return to you will not be addressed; it is essential to wait one full day prior to raising a concern.)

Additional Policies

Class notes policy: Notes or recordings made by students based on a university class or lecture may only be made for purposes of individual or group study, or for other non-commercial purposes that reasonably arise from the student's membership in the class or attendance at the university. This restriction also applies to any information distributed, disseminated or in any way displayed for use in relationship to the class, whether obtained in class, via email or otherwise on the Internet, or via any other medium. Actions in violation of this policy constitute a violation of the Student Conduct Code, and may subject an individual or entity to university discipline and/or legal proceedings. Again, it is a violation of USC's Academic Integrity Policies to share course materials with others without permission from the instructor.

No recording and copyright notice: No student may record any lecture, class discussion or meeting with the instructor without his/her prior express written permission. The word "record" or the act of recording includes, but is not limited to, any and all means by which sound or visual images can be stored, duplicated or retransmitted whether by an electro-mechanical, analog, digital, wire, electronic or other device or any other means of signal encoding. The instructor reserves all rights, including copyright, to his/her lectures, course syllabi and related materials, including summaries, slides (e.g., Keynote, PowerPoint), prior exams, answer keys, and all supplementary course materials available to the students enrolled in the class whether posted to the LMS or otherwise. They may not be reproduced, distributed, copied, or disseminated in any media or in any form, including but not limited to all course note-sharing websites. Exceptions are made for students who have made prior arrangements with The USC Office of Disability Services and Programs and the instructor.

Participation: Students are expected to actively participate in this course. In an online forum, participation includes:

- Careful reading and viewing of assigned materials by the date due
- Regular, substantive contributions to discussions
- Active engagement with online content
- On-time attendance and full attention in synchronous sessions
- Significant collaboration with classmates and teammates

Course grades may be affected for students who do not contribute to the course through active participation. Students should notify the instructor in advance if they are unable to attend class.

Contact Hours

This 4-unit course requires 3000 minutes of instructional time per semester, which equals 200 minutes (4 hours) of instructional time each week. Instructional time may be further broken down into 100 minutes (2 hours) of asynchronous time and 100 minutes (2 hours) of synchronous time. In addition, it is

expected that students will work, on average, an additional 400 minutes (8 hours) per week outside of class – on readings/viewings, homework assignments, field experiences, and individual or team projects. Synchronous class sessions will be offered as regularly scheduled evening or weekend classes, once each week.

Statement on Academic Conduct and Support Systems

Academic Conduct

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” <https://policy.usc.edu/student/scampus/part-b>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

Discrimination, sexual assault, intimate partner violence, stalking, and harassment are prohibited by the university. You are encouraged to report all incidents to the *Office of Equity and Diversity/Title IX Office* <http://equity.usc.edu> and/or to the *Department of Public Safety* <http://dps.usc.edu>. This is important for the health and safety of the whole USC community. Faculty and staff must report any information regarding an incident to the Title IX Coordinator who will provide outreach and information to the affected party. The sexual assault resource center webpage <http://sarc.usc.edu> fully describes reporting options. Relationship and Sexual Violence Services <https://engemannshc.usc.edu/rsvp> provides 24/7 confidential support.

Support Systems

A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://ali.usc.edu>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* <http://dsp.usc.edu> provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu> will provide safety and other updates, including ways in which instruction will be continued by means of Blackboard, teleconferencing, and other technology.