

USC Iovine and Young Academy

*Arts, Technology and the Business
of Innovation*

IDSN 550 Opportunity and Uncertainty

Units: 4.0

Spring 2024—Thursdays—7:30 pm-9:20 pm PT

Location: <https://digitalcampus.instructure.com/courses/15137>

Instructor: Sue Tan

Office: Virtual

Office Hours: By Appointment

Contact: suetzeta@usc.edu

IT Help: <https://uscedu.sharepoint.com/sites/IYAStudent/SitePages/IT-Resources.aspx>

Hours of Service: 9 a.m. – 6 p.m.

Contact Info: iyahelp@usc.edu

Technology Support: [Zoom information for students](#)

2U Digital Campus Online Technical Support

Contact: 1-855-487-3504, techsupport@digitalcampus.2U.com

Course Description

Design, business, and technology utilize different processes and methodologies of creativity and innovation through which opportunities might be realized to address problems, whether micro or macro, tacit or explicit. 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 and Outcomes

Students in this course will develop skills 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 problems factoring in individual, social, organizational, technical, design, market, and cultural perspectives.

- Create and implement a comprehensive research plan to ensure the acquisition of relevant data and insights.
- Build, experiment with, and iterate upon a prototype based on aggregated data.

Prerequisite(s):

IDSN 510 Integrative Practices Residential; IDSN 540 Processes and Perspectives.

Course Notes

This course will be conducted online, using a combination of synchronous and asynchronous methods. Students are responsible for all additional assigned material, including video lectures, interviews, and reading materials offered by the instructors throughout the course.

Technological Proficiency and Hardware/Software Required

Students must provide their own laptops. 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.

USC Technology Rental Program

The university realizes that attending classes online and completing coursework remotely requires access to technology that not all students possess. If you need resources to successfully participate in your classes, such as a laptop or internet hotspot, you may be eligible for the university’s equipment rental program. Submit an application to [USC Technology Rental Program](#).

HOW TO PURCHASE SOFTWARE AT THE DISCOUNTED ACADEMY RATE

For classes that require them, the following software are available for purchase online through the USC Iovine and Young software catalog at the Academy discounted rate:

Software	IYA Short-Term License at USC Bookstore
Adobe Creative Cloud	\$70 2023–2024 annual license
Apple Logic Pro	\$35 semester licenses
Solidworks	\$35 semester license
Apple Final Cut Pro	\$35 semester license

To purchase:

- Visit: <https://commerce.cashnet.com/IOVINE>
- Select the software license(s) you would like to purchase by clicking “View Details” or the software title and make your purchase
- You will receive an order confirmation receipt at the email address you provided
- You will be notified by email when the software license has been activated

If you have any questions about this process, please do not hesitate to contact Academy IT Support at iyahelp@usc.edu.

Required Readings and Supplementary Materials

Required content and readings may be assigned by faculty at any point during the semester. In addition, the following books provided fundamental source content for this course. They are NOT required but recommended for more in-depth knowledge and context:

- *Blue Ocean Strategy* (W. Chan Kim and Renée Mauborgne)
- *Business Model Generation* (Alexander Osterwalder, Yves Pigneur)
- *Business Strategy: Managing Uncertainty, Opportunity, and Enterprise* (J.-C. Spender)
- *Crossing the Chasm* (Geoffrey Moore)
- *Disruptive Innovation* (Clayton Christiansen)
- *Innovation as Usual: How to Help Your People Bring Great Ideas to Life* (Paddy Miller, Thomas Wedell-Wedellsborg)
- *On Competition* (Michael Porter)
- *Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days* (Jake Knapp)
- *The Art of Innovation* (Tom Kelley)
- *The Four Steps to the Epiphany* (Steve Blank)
- *The Lean Startup* (Eric Ries)
- *The Tao of Innovation* (Teng-Kee Tan, Hsien-Yang Seow, Sue Tan Toyofuku)

Description and Assessment of Assignments

Below are brief overviews of each assignment and deliverable across the three modules in the course: Strategy and Innovation, Human-Centered Design, Strategic Tools and Analysis. Unless specified otherwise, all assignments will be submitted within the 2U Learning Management System (LMS). If you experience technical difficulties submitting assignments, email the course instructors directly and utilize 2U student support for assistance. Additional assignment details will be provided separately.

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 will demonstrate their understanding of that week's materials. These quiz scores will make up 30 percent of their grade.

Reflection Writing Assignments

Throughout the course, there will be reflection writing assignments relating to the asynchronous material which you will respond in written format. The responses will be submitted in the LMS for peer review and consideration as well. They will be evaluated as part of the participation assessment for each unit of the course where a reflection is assigned.

Unit 3. Profile of an Entrepreneur or Innovator Who Has 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. Please avoid the famous and widely known (i.e. Elon Musk, Steve Jobs, Richard Branson, Mark Zuckerberg). Seek to shed light on visionaries from diverse backgrounds and perspectives. 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 presentation that includes, but is not limited to the following:

- Name and image of entrepreneur or innovator
- 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 uncertainty?
- Bonus points for additional illustrative images

Unit 9. 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. In the LMS, upload a PDF 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 the concept/idea
- Pain points and needs you were trying to solve for
- Explanation of key features and user experience (where/how might this be best used?)
- Three sketches of brainstormed ideas before you settled on the concept you prototyped

Unit 11. SWOT Analysis

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

Unit 15: Strategic Design Project Presentations

A comprehensive overview of the project will take place synchronously in the first few weeks of class, at which time teams will be assigned and a rubric will be provided. In the last session of the semester, teams will present the culmination of collaborative work completed during the course. In your final presentation, consider the future implications and grand vision of your initiative, informed by asynchronous and synchronous material covered in the course.

Assignment Rubrics

The instructor will provide evaluation and grading criteria for assignments throughout the course.

Grading Breakdown

Assignment	Points	% of Grade
Participation	150	15%
Quizzes	300	30%
Assignments	250	25%
Strategic Design Project (Team)	300	30%
Total	1000	100%

Grading Scale

Final course grades will be determined using the following scale:

Letter Grade	Numerical Score
A	95-100
A-	90-94
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
F	69 and below

Assignment Submission Policy

All assignments must be delivered by the date and time (Pacific Time) that the deliverable is listed as due per instructor guidelines. The instructor(s) will provide due dates for all assignments and deliverables during the first week of the Capstone. Late assignments will be subject to the late submission policy indicated below. **All assignments must be completed to pass this class.**

Late Submissions

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

Submission in the 24 hours after the deadline	10% deduction
Submission between 24 hours and 3 days after the deadline	50% deduction
Submission after 3 days after the deadline	100% deduction

Course Attendance Policy

The Academy maintains rigorous academic standards for its students and on-time attendance at all class meetings is expected. Each student will be allowed two excused absences over the course of a semester when a detailed explanation is provided. Each unexcused absence will result in the lowering of the final course grade by one-third of a grade (e.g., an A will be lowered to an A-, an A- will be lowered to a B+, and so on). In addition, being tardy to class will count as one-third of an absence. Three tardies will equal a full course absence. Missing a substantial part of a class, for any reason, may be counted as a full course absence and is at the discretion of the instructor.

Students remain responsible for any missed work from excused or unexcused absences. Immediately following an absence, students should contact the instructor to obtain missed assignments or lecture notes and to confirm new deadlines or due dates. Extensions or other accommodations are at the discretion of the instructor.

Excused absences normally may not be used on days where there is a quiz, exam, or presentation. Using an excused absence for a quiz, exam, or presentation, such as in the case of sudden illness or other emergency, is at the discretion of the instructor.

In the case of prolonged illness, family emergencies, or other unforeseen serious issues, the student should contact the instructor to arrange for accommodations. Accommodations may also be made for essential professional or career-related events or opportunities. Additionally, students who need accommodations for religious observations should provide advanced notice to instructors and student-athletes should provide Travel Request Letters. All accommodations remain at the discretion of the instructor, and appropriate documentation may be required.

Iovine and Young Hall Cleanout

The Academy is unable to store student projects and materials beyond the end of the semester. Students must remove all projects and personal materials from the Creators Studio, lockers/locker room, and other classrooms by the end of each semester. **All projects and materials left in Iovine and Young Hall will be discarded two days after the end of the final exams.**

Course Schedule: A Weekly Breakdown

Unit	Topic	Assignments
Module 1: Strategy and Innovation		
1	Intro 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 	Quiz: Intro to Strategy Reflection: What is Strategy?
2	Defining Innovation <ul style="list-style-type: none"> Breakthrough Innovation Basic Research Disruptive Innovation Sustaining Innovation Review of Innovation Concepts 	Quiz: Innovation Matching
3	Understanding Entrepreneurship and Intrapreneurship <ul style="list-style-type: none"> Understanding Entrepreneurship Understanding Intrapreneurship Inspirational Videos Kickoff of Strategic Design Projects 	Profile of Entrepreneur: Presentation of an Innovator Who Changed the World
4	Recognizing and Shaping Opportunities <ul style="list-style-type: none"> Recognizing and Shaping Opportunities Profit Patterns Fundamental Business Assumption 	Quiz: Video Knowledge Reflection 1: Profit Patterns Reflection 2: Fundamental Business Assumption

5	Finding and Framing Problems <ul style="list-style-type: none"> ● Intro to Finding and Framing Problems ● Frame Creation Methodology Case Study ● Introduction: Reframing Problems ● Reframing and Asking ● Power Dynamics 	Quiz: Frame Creation and Design Matching Reflection: What Needs to be Reframed?
Module 2: Human-Centered Design		
6	Customer Ethnography and Capturing Inputs <ul style="list-style-type: none"> ● Researching in the Wild ● Research Methods and Tools ● Observations ● Ethnographic Design Research 	Quiz: Ethnographic Terminology
7	Customer Development <ul style="list-style-type: none"> ● Customer Development Methodology ● Step 1: Customer Discovery ● Step 2: Customer Validation ● Step 3: Customer Creation ● Step 4: Company Building 	Quiz: Customer Development Reflection: Getting Out of the Building?
8	Design Thinking <ul style="list-style-type: none"> ● Overview of Design Thinking ● The Ten Tools ● Design Thinking Classic Case Study 	
9	Design Thinking (continued) <ul style="list-style-type: none"> ● Design Thinking Success Stories ● Creative Confidence ● Equity in Design 	Rapid Prototyping Assignment and Presentation: Reimagine the Lunchbox
10	Scenario Planning <ul style="list-style-type: none"> ● Overview of Scenario Planning ● The Approach and the Application ● Tips and Limitations ● Use of Scenarios 	Reflection 1: 2040 and You Reflection 2: What Comes After the Digital Age?
Module 3: Strategic Tools and Analysis		
11	Traditional Tools for Strategic Analysis <ul style="list-style-type: none"> ● Traditional Strategic Tools ● Porter's 5-Force Analysis ● Advanced Strategic Tools 	Quiz: Strategic Consulting Tools Assignment: SWOT Analysis
12	Rapid Development Processes <ul style="list-style-type: none"> ● Introduction to Rapid Development Processes ● Lean Startup ● Agile Development ● Design Sprint 	Quiz: Rapid Dev Processes

13	Business Model Generation <ul style="list-style-type: none"> ● The Business Model Canvas ● Business Model Environment Analysis ● Additional Business Models ● From Idea to Business 	Quiz: Business Models
14	Stress Testing and Scaling Your Ideas <ul style="list-style-type: none"> ● Stress Testing Your Ideas ● Stress Testing Your Strategy ● Scaling Your Innovation ● Culture Shifts 	Quiz: Stress Testing and Scaling Reflection: Fundamental Business Assumption
15	Competing with Purpose <ul style="list-style-type: none"> ● The Nature of Competition ● Techniques for Building Competitiveness ● Achieving Customer Focus ● Competing with Purpose 	Reflection: Jobs to be Done Presentation: Strategic Design Project

Course Content Distribution and Synchronous Session Recordings Policies

USC has policies that prohibit the recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class without the express permission of the instructor and announcement to the class, or unless conducted pursuant to an Office of Student Accessibility Services (OSAS) accommodation. Recording can inhibit free discussion in the future, and thus infringe on the academic freedom of other students as well as the instructor. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relation to the class, whether obtained in class, via email, on the internet, or via any other media. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Statement on Academic Conduct and Support Systems

Academic Integrity:

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the [USC Student Handbook](#). All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or “recycle” work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the [student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

Policy for the Use of AI Generators

The Capstone course does not have any restrictions on the use of generative AI tools to create or modify content relating to the development of student projects.

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University's educational programs. [The Office of Student Accessibility Services](#) (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems:

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on-call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[988 Suicide and Crisis Lifeline](#) - 988 for both calls and text messages – 24/7 on-call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on-call
Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086
Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-5086 or (213) 821-8298
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776
OSAS ensures equal access for students with disabilities by providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

[USC Campus Support and Intervention](#) - (213) 740-0411
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

[Diversity, Equity, and Inclusion](#) - (213) 740-2101
Information on events, programs, and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

[USC Emergency](#) - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on-call
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

[USC Department of Public Safety](#) - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on-call
Non-emergency assistance or information.

[Office of the Ombuds](#) - (213) 821-9556 (UPC) / (323-442-0382 (HSC)
A safe and confidential place to share your USC-related issues with a University ombudsman who will work with you to explore options or paths to manage your concerns.

[Occupational Therapy Faculty Practice](#) - (323) 442-2850 or otfp@med.usc.edu
Confidential Lifestyle Redesign services for USC students to support health-promoting habits and routines that enhance quality of life and academic performance.