As with many things at ID, our courses and their descriptions evolve organically. Most of the descriptions are complete; missing pieces will be added as quickly as possible. Please contact your advisor or the faculty member directly if you have questions about a particular course.

Some courses are not offered every semester.
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IDN 481 Introduction to Design 1

Course Overview
This course builds a contextual basis for the field and profession of design. Designers of the highest caliber offer not only excellent formal skills and conceptual rigor, but also an intellectual grasp of the professional practice of design, including evolution through history, current state and future direction. Broad knowledge of the field of design, and the different areas of practice, will help students more effectively pursue opportunities of the greatest interest. The practical requirements for pursuing design-oriented roles will be addressed, including basic portfolio expectations. Supplementary assignments and a few exercises will be woven into the course.

Learning Objectives
• The course will help students become more fluent in matters of design practice and cultures. Students will develop a more grounded perspective on design disciplines (or areas of practice) of greatest interest.
• Students will complete readings, light research work and build their skills and confidence addressing their colleagues. Assignments will be both individual and team-based.
• Activities will help foster a practical appreciation of the basic formal design skills that complement the conceptual thinking at the core of ID’s curriculum.
• Ideally, students will also participate in field trips and dialogs with active professionals as source of input for the professional practice content.

Learning Outcomes
• Students will develop a better design vocabulary
• Students will demonstrate a more grounded knowledge of the state of professional practice
• Deeper perspective on where to focus individual energy in the balance of time at ID
• Improved grasp of the most basic design tools and building blocks

Course Outline
1. Introductions + Overview: Defining Design
2. Design Vocabulary
3. Facilitated Discussion: Historic Essays
4. Field Trip
5. Professional Practice
6. Facilitated Discussion: Contemporary Essays
7. Drawing Exercises
8. Building Blocks
9. Portfolio Basics & Reviews
10. Final Presentations

Format & Grading
Grading is based approximately weighted as follows: 40% constructive class participation, 40% completion and quality of assignments, 20% demonstrated resourcefulness; regular, active participation is crucial. Absences must be excused; for each unexcused absence a single letter grade reduction penalty is applied.

Enrollment Restrictions
No prerequisites. This course is only available to Institute of Design Foundation students.
IDN 482 Introduction to Design 2

Course Overview
This intent of this course is to build a baseline of knowledge & familiarity with the professional practice of design—across disciplines, applications and environments.

Learning Objectives
The course will address a range of current professional practices, including the traditional core disciplines, the current landscape and converging fields. The basic set includes: product design; communication + graphic design; design planning; design research; interaction design; service design; design education

Learning Outcomes
• **Context**: How design and design education has evolved (from the WWII to the present). You will understand why we do things the way we do, and what makes design distinctive.
• **Criticism**: How to think critically about the design profession and your role in the field of design. You will be able to identify what works and what does not, and make recommendations for improvement.
• **Connections**: How design connects and works with other disciplines, including marketing, strategy, engineering, and operations.
• **Communication**: How to talk about the value you can create as a designer (for people and organizations). You will be able to articulate your relevant skills and experience in order to help you get a job / consulting work / teaching.

Course Outline
<TBD>

Format & Grading
Classes will be conducted as discussions, presentations and working sessions. Though the class style is casual, attendance & constructive participation are vital. The class participants will be asked to inform one another with grounded consideration of the skills, activities, challenges, common tools and leading players associated with each respective discipline.

Opportunities to engage the class with a guest speaker or field trip will occur during the semester. Generally, these are aligned with a specific area of practice, to provide grounded exposure to a field. The scheduling of guests’ participation is typically volatile—expect changes in sequencing or timing. Field trips and guest speakers have historically been weighted towards the B-session.

Individual grading will be based on the following criteria:
• Attendance
• Completion of all assignments
• Constructive contributions to class activities
• Quality + design of presentations + assignments
• Resourcefulness + demonstrated progress

Enrollment Restrictions
No prerequisites. This course is only available to Institute of Design Foundation students.
IDN 483 Intro to Communication Design 1

Course Overview
This course will provide the fundamentals for conveying visual information in a way that is effective and clear. Through a deep understanding structure and context of content, students will learn to apply visual elements, techniques, and principles crafting effective visual messages.

Learning Objectives
Students will understand the techniques and elements they have to manipulate as designers, and equally demonstrate the ability to apply them to the creation of clear visual messages.

Learning Outcomes
Through weekly and in-class assignments, students will apply techniques covered to craft effective visual messages.

Course Outline
1. Introduction, Typography 101
2. Arrangement
3. Contrast
4. Imagery
5. Introduction to information types
6. Comparisons/abstract
7. Comparisons/physical
8. Process
9. Context of Use
10. Final

Format & Grading
The class meets for the full day. The morning session will consist of project assignments, critiques and lectures. Homework will be critiqued every morning session. The afternoon session will start off with either a continuation of the morning critique or additional lecture and in-class exercise. If there is no exercise, studio time will be used to start your homework assignments, closing with an evaluation session.

A constant stream of your effort throughout the semester in the form of assignments and class participation will be the basis of your grade. Each week you will be required to do something new to demonstrate cumulative knowledge throughout the semester. Timeliness is critical; late assignments will be marked down one grade. Also, due to the cumulative nature of the work, there will be no mid-term or final project.

There will be 2-3 formal opportunities in the semester for a face-to-face feedback session to let you know how your progress is going.

Assignments
There are two types of assignments: weekly and in-class. Weekly or bi-weekly assignments will focus on the main topic at hand. Students will be introduced to the basic elements of Communication Design in the first third of the semester. Then, you will apply these elements using techniques and principals to actual real-life content. Afternoon, in-class assignments (aka 'Quick Fire' exercises) will augment that week's topic or complement it. This will allow you to get real-time feedback during class before tackling the larger assignment for that week.

Enrollment Restrictions
No prerequisites. This course is only available to Institute of Design Foundation students.
IDN 484 Intro to Communication Design 2

Course Overview
This course builds on the previous exploration of basic concepts of visual communication design. Through this course students will continue to investigate the elements, layout, and information structures within the context of a branded visual identity system. This course focuses on a holistic approach mindful of brand attributes such as: message, meaning, audience, personality and tone, context of use, and execution. Together, we will examine the rules and decisions applicable to create visual consistency across multiple communication touch-points.

Learning Objectives
Explore and understand how elements and approaches affect the efficacy of a crafted communication
• Graphic elements (type, color, image, scale, balance, rhythm)
• Grid structures (multi-column, symmetrical, asymmetrical)
• Information structuring (function, hierarchy, weight, consistency, contrast)

Learning Outcomes
When completed, students will be able to craft a consistent and compelling system of communication artifacts demonstrating their knowledge of the principles and practice involved.

Course Outline
1. Introduction, Brand 6. Context of use: Web application
3. Logotypes and marks 8. Storytelling
4. Typography 201 9. Final Presentation
5. Color

Format & Grading
This class meets for a full day once a week. The morning session will consist of lecture, critique and homework assignment. Readings will occasionally be assigned to supplement lectures. The afternoon session will supplement the morning lecture topic through additional lectures and in-class exercises. In some instances studio time will be used to start your homework assignments.

A constant stream of effort throughout the semester in the form of completed assignments and class participation will be the basis of your grade. Assignments include single week exercises, multi-week investigations and the cumulative semester deliverable. Each week you will be required to do something new to demonstrate cumulative knowledge throughout the semester. Timeliness is critical; due to the iterative nature of the class, late assignments will NOT be accepted. Final grades will be comprised of 3 parts:

1) Professionalism + attitude | respect, mindfulness of time, participation, and presence
2) Performance + iteration | rigor and depth of exploration
3) Concept + execution | originality and appropriateness of idea, demonstration of design principles

Enrollment Restrictions
No prerequisites. This course is only available to Institute of Design Foundation students.
IDN 485 Introduction of Product Design 1

Course Overview
This course creates the foundation of knowledge and develops skills for three-dimensional design. At the end of this course, students should be able to explore, create, and communicate design directions for simple products and environments taking into account design principles, human factors, technology, and business issues.

Learning Objectives
Students are taught about the design process through a series of product design projects. Methods to analyze, explore, express and critique design concepts and a vocabulary of design will become familiar. Core principles for design are introduced and through iterative practice of increasingly difficult problem spaces student will gain knowledge for tackling the design of small-scale products.

Learning Outcomes
Students will understand what a design problem is, ways to structure a design problem, how to ideate using prototyping to explore their thinking and represent their solutions. Students will gain an ability to express through reasoned explanations, images and models how to represent their ideas throughout the design process. Many techniques from sketching to computer modeling are covered. A key aspect is learning the culture of design: learning through doing, being project based, working in the studio environment and actively participating in critique.

Course Outline
1. Introduction and starting out exercises
2. File folder project
3. Pedestal file project
4. Line plane volume form study
5. Lighting project

Format & Grading
The course is taught as an all day studio class. A series of projects provide students with experiences to develop their design thinking and skills. By using a structured design process, students learn to analyze problems, define issues, and develop multiple ideas leading to detailed concepts that are clearly defined and defendable. Students learn to delineate a strong point of view fitting user needs resulting in viable product solutions. An emphasis is placed on building skills in sketching, 2D and 3D visualization, paper prototyping, storytelling and presentation.

Evaluation will be based on your contribution to class discussions and reviews, and the quantity and quality of your work. Quality work is substantive, conceptually strong, and visually clear.

Enrollment Restrictions
No prerequisites. This course is only available to Institute of Design Foundation students.
IDN 486 Introduction of Product Design 2

Course Overview
This course builds on learning’s from Introduction of Product Design 1. The objective is to create a foundation of knowledge and skill for three-dimensional design. At the end of this course, students should be able to explore, create, and communicate design directions for simple products and environments taking into account design principles, human factors, technology, and business issues.

Learning Objectives
To give students the ability to successfully work on design problems: framing opportunity areas, identifying user issues, working within constraints, prototyping throughout the design process and presenting their solutions through many forms of visualization all while developing a sensitivity to the importance of craft in design.

Learning Outcomes
Students should be able to:
- frame a product design problem
- create multiple credible concepts
- present through reasoned explanation their product solution
- use many prototyping techniques to develop and express their thinking
- understand and utilize the design process
- critique work through a vocabulary of design
- gain experience with a wide range of product design constraints

Course Outline
1. Introduction and Housewares project
2. Toolbox
3. Digital product

Format & Grading
The course is taught as an all day studio class. A series of projects provide students with experiences to develop their design thinking and skills. By using a structured design process, students learn to analyze problems, define issues, and develop multiple ideas leading to detailed concepts that are clearly defined and defendable. Students learn to delineate a strong point of view fitting user needs resulting in viable product solutions. An emphasis is placed on building skills in sketching, 2D and 3D visualization, paper prototyping, storytelling and presentation.

Evaluation will be based on your contribution to class discussions and reviews, and the quantity and quality of your work. Quality work is substantive, conceptually strong, and visually clear.

Enrollment Restrictions
No prerequisites. This course is only available to Institute of Design Foundation students.
IDN 487 Introduction to Photography

Course Overview
In an increasingly visually taxed world, with people’s ability to create and consume image-based media the easiest it’s ever been, knowing how to create compelling photography that can breakthrough the content-laden din to get noticed is a valuable skill. After a grounding in general photographic and visual theory, we will apply principles of color theory, spatial abstraction and human perception to learn how to organize a photograph. Students will also spend considerable time turning their attention towards documenting the urban and architectural landscape, learning how to capture the inter-relationship between people and their environments. Lastly, students will learn to apply the tools within the controlled studio environment to create purposeful people and product portraits.

Learning Objectives
The class will teach students how to be capable image-makers by training them to be competent image-evaluators. Students will be trained on the technical, compositional and conceptual aspects of image-based visual communication. Besides lab time, class lectures and student critiques, much of the student’s education will take place outside of the classroom through students constrained experimentation with the medium. This course is intended not only to expand the students’ knowledge of the basic principles and practices of photography, but also as a compliment to the principles and practices of the main program.

Learning Outcomes
• Develop a fundamental competency of the technical aspects of digital camera operations and photographic techniques for proper image capture.
• Learn the tools of the digital darkroom (Photoshop, Lightroom, Bridge, etc.) for image processing, and for digital manipulation of two-dimensional continuous tone images.
• Establish a working understanding of the principles of image construction, via the consideration and manipulation of light, color contrast and visual gestalt as it pertains to the production of photographs.

Course Outline
• Introduction to photo technology and camera functions
• Color theory – creating color balanced photographs
• Principles of human perception
• Introduction to the social landscape
• Learning strategies for shooting on the street and your rights as a photographer
• Creating relationships between subject and their environment
• Introduction to the photo studio
• Learning the qualities of light and how to shape it
• Understanding multi-exposure techniques (stitching and stacking)

Format & Grading
30% class participation, 40% final assignments, 30% demonstrated growth

Enrollment Restrictions
No prerequisites. This course is only available to Institute of Design Foundation students.
IDN 488 Introduction to Digital Media

Course Overview
The objective of this course is to introduce concepts of Digital Media to students who enter the MDES program without a prior design degree. Through three modules based on user experience and interaction design, the course will enable students to engage with different digital media tools and artifacts.

Learning Objectives
Students of this course will learn and reflect on three critical areas of Digital Media: Information Architecture, Interaction Gestalts, and Information Platforms. Students will also gain first hand experience with developing Digital Media prototypes and studies to build basic coding and interaction skills.

Learning Outcomes
Demonstrate proficiency in digital media, including but not limited to interaction design tools and methodology.

Course Outline
1: Information Architecture
Information Architecture introduces students to basic interaction design concepts including the design and architecture of information. At the end of this module students are expected to have the ability to deconstruct websites, applications, and information portals into component tectonic elements.

2: Interaction Gestalt
Interaction Gestalt introduces students to Gestalt theory and extends the theory into the design and development of interactive structures and user experiences. At the end of this module students are expected to have the ability to build their own websites, applications, and information portals based on interaction gestalt frameworks.

3: Information Platforms
Information Platforms introduces students to the idea of platforms and how to design information platforms. At the end of this module students are expected to have the ability to place their concepts in a larger eco-system of information appliances, hardware, introducing multiple touch points of user experience and interaction.

Format & Grading
The course is structured in the form of a workshop meeting two half days every week. The first half hour introduces students to theoretical concepts of Digital Media while the second half hour focuses on skills and technical knowledge building. Students are expected to work on one concept through the semester taking the concept through different levels of prototyping in the three modules of the class.

Enrollment Restrictions
No prerequisites. This course is only available to Institute of Design Foundation students.
**IDN 461 Design Reading and Vocabulary Skills I**

**Course Overview**
In this course, students improve reading skills by analyzing core literature in the field of design. Typical topics covered include creativity, typography, abstract modeling, visual storytelling, and the relationship between art and design. Students will learn to recognize transitions and keywords to find main ideas and improve fluency. Vocabulary derivation skills, inference skills, and dissection of the author’s opinion are heavily emphasized. Design and ID specific terminology will also be introduced to improve critical discussion skills.

**Learning Objectives**
Improving design specific:
- Vocabulary
- Reading strategies
- Critical thinking
- Analyze and synthesizing topics
- Preparing questions and points of discussion

**Learning Outcomes**
<TBD>

**Course Outline**
<TBD>

**Format & Grading**
<TBD>

**Enrollment Restrictions**
No prerequisites. This course is open to all Institute of Design students.
IDN 462 Design Listening and Presentation Skills I

Course Overview
In this course students develop skills in listening, giving presentations, and strategies for note-taking during presentations. Students learn to spontaneously express ideas and ask questions with confidence. This class will focus on strengthening familiarity with formal presentations and informal presentation skills and language use in US classrooms. American English pronunciation in particular is emphasized. This class will also focus on practicing and listening for persuasion, negotiation, and impromptu discussions.

Learning Objectives
• Listening for main ideas, details, opinions, and tone
• Understanding sarcasm and cynicism
• American style presentation skills and pronunciation
• Describing projects and processes
• Sharing ideas and opinions
• Identifying language cues
• Confirming information and clarifying concepts
• Politely agreeing, disagreeing, and interjecting

Learning Outcomes
< TBD >

Course Outline
< TBD >

Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 463 Cross-Cultural Communication I: Chicago and Design

Course Overview
In this course students explore the history of Chicago and its culture through planned excursions and discussion of cultural expectations. Rich discussions of cultural differences create a forum to reflect on experiences and understand Chicago subcultures. (e.g. sports, food, art, and architecture). Students improve skills for navigating through social and academic interactions through exposure to idiomatic and culture specific references. Excursions to Chicago cultural events and locations will be a part of the course.

Learning Objectives
< TBD >

Learning Outcomes
< TBD >

Course Outline
< TBD >

Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 464 Cross-Cultural Communication I: Lab

Course Overview
This course is the lab component of IDN 463 Cross-Cultural Communication I. Exercises and outings will make up the majority of this course.

Learning Objectives
<TBD>

Learning Outcomes
<TBD>

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
IDN 463 Cross-Cultural Communication I is a co-requisite of this course. This course is open to all Institute of Design students.
IDN 466 Design Reading and Vocabulary Skills II

Course Overview
In this course, students extensively read and analyze typical design literature to increase comprehension of the author’s purpose and tone. Topics will mainly focus on the business of design and the language related to professional practice of design. Skills such as skimming, identifying main ideas and supporting ideas will be emphasized. Students will develop design-specific vocabulary and gain exposure to idioms and colloquial expressions to improve overall comprehension of reading material.

Learning Objectives
< TBD >

Learning Outcomes
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Course Outline
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Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 467 Design Listening and Presentation Skills II

Course Overview
In this course, students practice speaking through class debates, leading discussions, and exchanging ideas. Students learn to express opinions clearly and with confidence. Reading and discussion of papers originating within the design research community continue from last semester with particular topics including sustainability, boundary objects, personas, distributed cognition, and emotion. In parallel, students will give presentations with visual aids to improve confidence in discussing their design work. Focus overall is on learning expressions that will build confidence to participate in classroom discussions and everyday activities.

Learning Objectives
< TBD >

Learning Outcomes
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Course Outline
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Format & Grading
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Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 468 Cross-Cultural Communication II: US History and Current Events

Course Overview
In this course, students continue to improve skills for navigating through social and academic interactions. Topics of study will include US history and current events to provide ample opportunity to compare the US to their native born cultures. Particular focus will be on typical miscommunications that can arise when designing for and within multiple cultures. Excursions to US history-relevant locations will be part of the course.

Learning Objectives
<TBD>

Learning Outcomes
<TBD>

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 469 Cross-Cultural Communication II: Lab

Course Overview
This course is the lab component of IDN 468 Cross-Cultural Communication I. Exercises and outings will make up the majority of this course.

Learning Objectives
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Learning Outcomes
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Course Outline
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Format & Grading
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Enrollment Restrictions
IDN 468 Cross-Cultural Communication I is a co-requisite to this course. This course is open to all Institute of Design students.
IDN 502 Making The User-Centered Case

Course Overview
This course covers the structure and the presentation of a meaningful case for change in a design context. Cases in this course are based on demonstrating a solution or a promising approach to a problem that has been defined within a framework of enumerated user values and a context, which includes user and client behaviors and capabilities as well as the competitive landscape, and enabling externalities. Public speaking principles and the use of supporting visual material are also included in the course.

Learning Objectives
To improve the student’s ability to persuade by improving overall communication skills and eliminating counterproductive, sometimes unconscious behaviors and bad habits. Develop the student’s strengths and immunize them against their irreducible deficiencies—a way of getting comfortable in their own skin.

Learning Outcomes
At the conclusion of this course, students will:
• Become comfortable speaking for and about users and their issues in a “public” context
• Improve their ability to craft compelling arguments to demonstrate their point of view
• Through practice, be better able to communicate effectively within and across teams

Course Outline
• Rhetoric: types, definitions and applications in design. Telling the Tale and Making the Case.
• The User Centered Case: a method for developing a compelling case for change.
• In depth discussion of inherency. The elevator pitch.
• Encapsulation, repetition, and links. Ways of developing and refreshing the memory of your audience.
• How to make a presentation without a solution.
• How to use materials from your development process to aid in client “buy in.”
• Introduction, Conclusion, and Solution Criteria. How the whole thing works.
• Visual vocabulary and visual rhetoric
• The questioning period. Responding to hostile questions.
• Mechanics and etiquette of presentations
• Final Presentation

Format & Grading
The class will be kept small (12-15) so that every student can present and get constructive criticism five times over the six weeks in a variety of typical, design related formats. Each week new material will be presented followed by student presentation/critique of the previous week’s assignment. Weekly assignments cover the individual parts of a user-centered case. The final project is actually being developed through the whole course and will be an eight-minute presentation with visuals (optional) tying all the parts together. The case to be developed will be chosen by each student from either a completed or current project in another class. Time spent outside of class will average three hours per week.

You will be graded solely on your individual performance in presenting whatever you have chosen. To receive this grade you must submit your notes and presentation deck, and you must attend all final presentations. Not adhering to these simple requests will result in a failing grade.

Class Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 504 Introduction to Observing Users

Course Overview
This class will introduce students to theory and methods of behavioral observation, description, and analysis. Students will use a variety of techniques derived from social and behavioral psychology and anthropology to develop useful, powerful approaches to gaining insight towards solving modern design and business problems. Readings and theory are integrated with observational fieldwork exercises to provide rich learning experiences both in and outside of the classroom.

Learning Objectives
• Develop a strong understanding of how different information gathering techniques impact data perspectives and analytic outcomes.
• Gain hands-on experience building fieldwork skills using a variety of tools and planning and executing a variety of field research activities.
• Establish theoretical understanding of human cultural processes, behavioral schemas, and how to develop frameworks from observational data.

Learning Outcomes
Students of Observing Users will demonstrate new skills for planning and executing field research activities ranging from behavioral observation to interviewing. They will be able to understand the outcomes of other people’s research and the kinds of implications that can be drawn from different approaches to user and design research.

Course Outline
1. Introductions and basic theoretical tools
2. Each student will assemble and bring to class their field observation tool kit. Be prepared to discuss the items in your kit.
3. Observe and document a single environment
4. Each student will observe and document the social life of an object
5. Observe and document the social behavior of an individual
6. Observe and document the body language and facial expressions of an individual using photography and/or field observation. Submit research project topic
7. Observe and document a complete experience. Use the 5 E experience model to analyze and interpret your findings. Find the root metaphor. Submit research project plan
8. Build on your 5 E model by amplifying some attributes of the current metaphor or suggest an alternate metaphor and re-write the experience accordingly. Develop research project protocol.
9. Conduct a small design research project that requires supporting observational research
10. Final Presentations in the form of a 5 minute Poster discussion. Final written report due.

Format & Grading
Each class usually has a lecture discussion component and critique component. In the first half of class we typically discuss the assigned readings and other salient issues. In the second half, review each others work with an eye toward developing technique, building skills and talking through alternatives. This course is graded based upon class participation (1/3), completion and experimentation with research techniques during field exercises (1/3) and completion of final project (1/3).

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 506 Research Planning & Execution

Course Overview
Rigorous planning is the key to conducting meaningful and rigorous research that evokes trust and delivers impact within an organization. The focus of this course is an in-depth exploration of the planning stages of qualitative research to ensure quality and effectiveness.

Learning Objectives
The course will explore and examine all stages of planning qualitative research including:

• Understanding business goals and client needs to derive and identify research goals
• Working with constraints of time and budget when planning a project
• Selecting research and analysis methods to best meet the objectives of the research
• Recruiting for qualitative research to ensure sound results
• Developing discussion guides and field tools to ensure that cross-comparable data is collected

Learning Outcomes
• Students will become methodical about their qualitative research planning process — knowing all steps that need to occur to construct a sound and rigorous qualitative study.
• Students will understand the interdependencies between project scope, budget and timeline — they’ll gain a reality check of what can and cannot be done.
• Students will be exposed to multiple client interaction styles and different project types throughout the class, as they interface with the other project teams in the class.

Course Outline
1. Class overview, Team formation, Project briefings
2. Articulation of project goals, Pros and cons of different research methods, Lecture on recruiting specs and screeners
3. Team presentations on research goals and initial thoughts on project design, Lecture on defining project design, budget and timeline
4. Team presentations of project design, budget and timeline — does it all work? How will they change project design so that it does work?
5. Development of project protocols and screeners
6. Final presentations (a.k.a. Project kick-off presentations), Class feedback

Format & Grading
(Please note: No execution of the qualitative research plan will occur in this course.)
This class will be formatted as both a lecture and studio course. In the lecture portion of the class, students will be taught guidelines and principles for the topics mentioned above. In the studio portion of the class, student teams will be given different “client” projects. Each project will have different scopes, budget and timeline constraints. Teams will need to assume the role of consultant, listening to the client describe what she needs and then working to build a project design that will appropriately meet the needs of the client. Teamwork will occur both in and outside of class.

Grades will be based on participation and engagement in class and the results of each team’s project. Each of the above will count for 1/2 of each student’s overall grade. In addition, at the conclusion of the class, students will do a 360° review of their teammates. This will ensure that each student is given a grade that accurately reflects his or her personal contribution to each team’s project.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 508 Principles & Methods of User Research

Course Overview
This course is a survey of the research methods commonly used in design research and gives an overview of distinctions between primary and secondary research, quantitative and qualitative research, and online and in-person research in order to prepare students for research-intensive projects.

Learning Objectives
< TBD >

Learning Outcomes
< TBD >

Course Outline
< TBD >

Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 510 Research Photography

Course Overview
This course will introduce students to the use of photography in research for design. Photography plays a critical role throughout the design process and is particularly important during upfront discovery research. From the preliminary framing of a design challenge through to the communication of research findings and design direction, students will learn how to take successful photographs for the end-to-end design process. Documentary photography, how images have been used to invoke social change and how time-based imaging can inform spatio-temporal studies will be covered as well.

Understanding how to analyze images from field research, effectively utilizing them as a key source of data, yields powerful insights that bring observational research to its full potential. After students successfully shoot and analyze photographs, they will learn to leverage images in illustrative narratives. These narratives can be used to describe the current user experience, provide an evocative profile of research participants, create an immersive context for idea generation and illustrate new concepts and future experiences.

Learning Objectives
Objectives focus on the role of photography in several types of research: ethnographic research, user-generated media and immersion studies. Students will learn to both compose and to use imagery to understand and communicate issues surrounding typical design challenges.

Learning Outcomes
After concluding this course, students will have improved their skills and comprehension in several areas:
- Using photography as a tool in several research methods
- Analyzing images to inform a deeper understanding of user behaviors, interactions with objects and environments, interpretation of artifacts and cultural media
- Leveraging images as an illustrative element in communicating ideas and concepts

Course Outline
<TBD>

Format & Grading
During this 6-week course, each class session will be structured with a lecture/discussion component, critique and a learning exercise. There will be several reading assignments and the review of relevant media that inform the use of photographs in research, all of which we will discuss during class. The ability to construct visual narratives and tell compelling stories is an important element of the course, so each week will include time to present work to the group and receive feedback.

Grades will be based based on: 25% Weekly Assignments, 25% Completion of Readings/Media Reviews, and 25% Final Project

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 512 Interview Methods

Course Overview
This course will provide the both practical knowledge and theoretical/methodological background to enable students to thoughtfully engage with users through individual and group-based interviews, and to analyze and understand those dialogues. The course will combine scholarly research from the social sciences and from the design world to build understanding and afford students opportunities to think critically about the interview process. Practice will help students hone their interview and analysis skills.

Learning Objectives
Build an understanding of the methods involved in interviewing for design research and how to strengthen their individual interview practices.

Learning Outcomes
Students completing this course will be able to:
• Identify situations in which individual or group-based interviews will help them in the research and design process
• Design interview guides, conduct interviews, transcribe, and analyze interviews

Course Outline
<TBD>

Format & Grading
Each week, there will be both a discussion and a practical component to the class, so students have the opportunity to gain hands on experiences and to think critically about what they are doing.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 514 Experience Modeling

Course Overview
This course covers the process and methods of “Experience Modeling” – illustrating current and potential future experiences for the purpose of design-led innovation. As the number of touch points with customers have exploded, the challenge in understanding and managing a multi-channel customer experience has become increasingly problematic. Through a series of hands-on exercises, students will learn ways to describe and depict experiences through both heuristic and generative methods. Emphasis will also be placed on critique of different types of models – people, journey, mode, value, and ecosystem oriented.

Learning Objectives
Enable students to be comfortable in describing and illustrating multichannel “experiences”, illustrating insight from research and providing definition for strategy. More tangibly, the class is built around mastery of five core model types that work together to create a complete, compelling and actionable picture of people and their interactions with an organization.

Learning Outcomes
• Become familiar with emerging issues of designing for multichannel experiences
• Learn to use the five experience model types in concert to understand and define experiences
• Demonstrate the principles and methods discussed through a presentation of current and future experience states on a assigned group project

Course Outline
1 Why Experience (Modeling) Matters
2 People Models
3 Journey Models
4 Modal Models
5 Values Models
6 Ecosystem Models
7 Integrating Models: Experience Maps, etc.
8 Understanding to Opportunity Identification
9 Illustrating Opportunities
10 Creating a Compelling Story
11 Organizational Implications
12 Final Presentations

Format & Grading
25% class participation, 25% assignments, 25% peer review, 25% final presentation

Enrollment Restrictions
IDX 542 Analysis + Synthesis is recommended prior to this course. This course is open to all Institute of Design students.
IDN 516 Cultural Probes

Course Overview
This course is an overview of how, why, and when to use cultural probes for the purposes of design research as well as the aesthetic and socio-cultural considerations necessary for using probes in research at a variety of field sites. Cultural probes are playful and creative artifacts or stimuli that are introduced into a design research process in order to elicit inspirational responses. We will review examples of cultural probes and stimuli that might be used in a variety of design research traditions including critical making, critical design, design fiction and speculative design approaches.

Learning Objectives
Students will become familiar with the use of cultural probes as they are situated within different design research traditions. Specifically, the goals, opportunities and advantages will be compared with the limitations, difficulties and disadvantages of using cultural probes through a series of examples from design projects around the world.

Learning Outcomes
Upon completion of this course, students will be able to:
• Describe the history of cultural probes within design research traditions
• Evaluate the advantages and disadvantages of using cultural probes
• Articulate the features and purpose of successful cultural probes
• Understand potential applications for cultural probes in a variety of sectors and with a variety of topics and issues

Course Outline
1. <TBD>

Format & Grading
Class time will be focused on lectures, discussions, hands-on activities and review of weekly assignments. We will build and evaluate our own probes in order to better understand how these artifacts might be introduced into ongoing design research projects. Grading will be based on: 20% Class Participation, 30% Weekly Assignments, 50% Final Project

Course Restrictions
IDN 504 Observing Users is recommended prior to this course. This course is open to all Institute of Design students.
IDN 517 Stimulus in Design Research

Course Overview
This course explores the method of stimulus in primary design research as a complement to the cornerstone methods of user observation and stakeholder interviews. When a topic is extremely intangible, difficult to observe, narrowly focused, or sensitive in nature, stimulus (provocative and tangible objects or experiences) are an effective way to explore a topic and arrive at useful insight for the purposes of design.

Learning Objectives
• Explore new and creative methods for data collection and develop perspectives on when to use these methods in practice.
• Compare and contrast other primary research methods with respect to stimulus based methods
• Provide a forum for practicing and iterating research and data collection

Learning Outcomes
Students will be able to demonstrate how to:
• Frame research objectives and justify methods based on these objectives
• Plan and prototype several research methods, as well as evaluate their effectiveness

Course Outline
1. Team assignments for project
2. Framing objectives & methods brainstorm
3. Methods prototyping
4. Mid-point critique & interviewing best practices
5. Methods refinement
6. Final in-class presentations, project reviews

Format & Grading
This course will concentrate on learning through experimentation. Through a class project, students will create stimulus based on the goals of their research, and test the stimulus with participants in order to understand the strengths and weaknesses of their stimulus designs.

Students will use class time to work in teams and prototypes various stimulus-based data collection methods, then use out-of-class time to collect data. Students will then bring data back into class to analyze and refine their methods iteratively.

Grades will be based on 50% project work, 30% class/team participation, 20% methods lookbook

Enrollment Restriction
IDN 504 Observing Users is recommended prior to this course. This course is open to all Institute of Design students.
IDN 518 Survey Methods

Course Overview
In this course, we will cover basic components of survey design, including data collection modes, sampling, coverage errors, nonresponse, interviewer effects, questionnaire design, and ethics related to survey research. Students will also gain practical and hands-on experiences to further understand the practical aspects of the survey design process.

Learning Objectives
The primary goal of this course is to comprehend and apply the basic components of survey design, with an emphasis on the understanding of the decisions and corresponding tradeoffs with respect to the quality of the data obtained. In particular, when you have completed this class, you should be able to:
1. Identify various data collection modes and sampling designs
2. Recognize and distinguish between various error sources in survey process and data
3. Understand and compare the factors causing nonresponse and interview effects
4. Develop and evaluate survey questions
5. Evaluate the implications of design decisions and implementation for data quality.

Learning Outcomes
- Design and implement high quality surveys
- Write high quality surveys
- Understand and identify the reliability and validity of survey items
- Identify and decrease factors leading to problems in survey research
- Identify ethical issues related to survey research

Course Outline
1. Introduction to Survey Methodology
2. Planning and designing survey
3. Designing and evaluating survey questions
4. From designing questions to processing and analyzing data
5. Social media, big data, and survey methods
6. Presentation and wrap up

Format & Grading
Grades are based on 20% class participation, 40% various assignments, 40% final presentation

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 520 Co-Design & Participatory Research Methods

Course Overview
This course is an overview of how, why, and when to use codesign and participatory design in design research. Codesign and participatory design emphasize a shifting relationship between designers and participants, from hierarchical to collaborative. Specifically, codesign and participatory design offer ways of bringing together diverse groups of stakeholders around complex socio-technical issues such as health, education, transportation, technology and sustainability. Understanding and designing in these areas require deep knowledge from a variety of perspectives and sectors including non-profit, government, academia, business, technology and citizens at large. This course will review examples of codesign and participatory design from a variety of design research traditions including critical making, critical design, design fiction and speculative design approaches.

Learning Objectives
Students will become familiar with the use of codesign and participatory design approaches as they are situated within different design research traditions. Specifically, the goals, opportunities and advantages will be compared with the limitations, difficulties and disadvantages of codesign approaches through a series of examples from design projects around the world.

Learning Outcomes
• Become familiar with the history of codesign and participatory design approaches within design research traditions
• Evaluate the advantages and disadvantages of codesign approaches
• Articulate the features of successful codesign processes
• Understand potential applications for codesign across a variety of domains, topics, and issues

Course Outline
1. Introduction to coDesign
2. Assignment #1 due
3. Assignment #2 due
4. Assignment #3 due
5. Final presentation and Critique

Format & Grading
Class time will be focused on lectures, discussions, hands-on activities and review of weekly assignments. Grades will be calculated based on: 20% Class Participation, 30% Weekly Assignments, 50% Final Project

Course Restrictions
IDN 504 Observing Users is recommended prior to this course. This course is open to all Institute of Design students.
IDN 522 Coding and Analysis

Course Overview
This course provides an overview of classic grounded theory coding techniques as well as current practices used in the field of design.

The field of design began integrating social science methods for understanding users in the early 1990s. At first, the methods for data collection and data analysis were utilized in conjunction with one another, ensuring a tight relationship between the nature of the data collected and the means for processing it. Decades later, design has diverged and evolved its own approaches. Students will learn how to develop code lists, how to code data and how to conscientiously substitute other approaches when coding is not the best fit for the project.

Learning Objectives
Students will become conversant in both classic grounded theory coding and more design-driven analytic practices.

Learning Outcomes
Students will emerge with a framework that organizes possible analytic strategies, enabling them to better choose analytic methods based on desired outcomes and design problems.

Course Outline
< TBD >

Format & Grading
During the course, students will work hands-on with data, applying different analytic approaches to better understand the strengths of each method.

Enrollment Restrictions
IDN 504 Introduction to Observing Users is a pre-requisite to this course. This course is open to all Institute of Design students.
IDN 526 Online Research Methods

Class Overview
This course is a hands-on exploration of online research platforms. Online studies are a useful option for all students who imagine practicing in user-research driven professions. User research is increasingly migrating from a linear, field-based set of methodologies to an iterative, hybrid set of approaches to better suit the complexity of problems industries face and the compressed timeframes development teams are asked to operate in.

Learning Objectives
The objective is to give students the experience of planning and implementing an online study. Through this experience, students will also have an opportunity to examine the appropriateness and opportunities of online methods for given design challenges.

Learning Outcomes
Emerging from the class, students will understand:
• How online platforms work from a research point of view
• What kind of investigations online platforms support
• What kinds of data they generate
• ...and, mostly importantly, how they might integrate with field research.

Course Outline
1. Ethical practices in research
2. Platform introductions
3. Protocol development
4. Study implementation + facilitation

Format & Grading
This is a methods and tools-based class; we will not engage in any data analysis. Students will focus on the design of research objectives, implementation of their study protocol and moderation of study participants only. Students will also receive hands-on feedback to understand the shift in skills, timing and team roles involved in executing a quality online and how that differs from field research.

Students will work in teams, and each team will have two responsibilities: 1) Design, implement and moderate your study, and 2) Act as participants for another team’s study

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 530 Introduction to Design Planning

Course Overview
This course is short but intense, and instrumental for understanding the basic ideas, frameworks, and capabilities that modern design planning and innovation programs demand. If you believe that innovation is fundamentally about creativity, the term "innovation planning" appears to make no sense. This should be your very first clue that the obstacles to successful innovation live mostly in stupid assumptions and bad practices. At ID we believe we can get innovation to give up its secrets. This foundation course takes us on a brisk journey to connect ideas ranging from the business planning fundamentals, to modern frontiers of design and innovation planning.

Learning Objectives
• Expose students to the larger context of innovation and design's unique abilities to lead in times of severe ambiguity. Emphasis on established and emerging frameworks to guide critical thinking.
• Review basic tenants of innovation leadership in large-scale enterprises or wickedly complex problems.

Learning Outcomes
• Students will demonstrate the application of theories and principles covered in class through developing a breakthrough platform of their own choosing with an emphasis on “lightweight design”—catalysts for effective innovation that are faster, smarter, and lower cost than ever before in history.
• Using a real-world problem, demonstrate the ability to focus on and articulate, with clear arguments, specific innovations in the wake of big shifts—a very modern form of planning.

Course Outline
1. Thinking like a planner: an overview
2. Planning frameworks
3. Review of lectures and readings; initial plans
4. Strategy architectures: building sophisticated plans
5. Strategic innovation programs: affecting behavior
6. Achieving change and impact

Format & Grading
This course blends digital lectures, in class discussions, and team challenges. Relevant readings are assigned and should be read in advance of class sessions. One-third of the grade will be based on weekly assignments and class participation. Another third will be from an assigned team project and presentation, plus the peer evaluation of your contributions as a team member. The final third will be a function of your contributions in class conversation. Overall, emphasis will be on demonstrated mastery of the material, along with its effective application, and your teamwork skills.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 532 Business Frameworks & Strategy

Course Overview
This course provides an overview of business frameworks such that students will be able to appreciate and leverage these business concepts in their design work. Although there are exceptions, senior managers and those that control resources are more often trained as traditional business thinkers. To be effective and impactful in these situations, designers need to expand their vocabulary and abilities to bridge to the domain of business.

Learning Objectives
Students will become familiar with the basic topics taught in leading MBA programs. At the same time students will be encouraged to integrate their design perspective to these frameworks in order to bring unique contributions to the business and thereby enhance their effectiveness in organizations.

Learning Outcomes
Upon completion of this course, students will be able to:

• Define and evaluate company strategies
• Read financial statements and understand how companies are valued
• Articulate basic marketing frameworks and understand the advantages and disadvantages of various channels to market
• Understand theories of innovation and be able to define a business model
• Define what makes an effective leader and how they can exert their personal leadership in the work situations they encounter

Course Outline
1. What is Strategy?
2. Introductory Finance
3. Sales, Marketing and Channel Management
4. Operations, Technology and Execution
5. Innovation and Entrepreneurship
6. Leadership

Format & Grading
Class time will be focused on lectures, case discussions, hands-on activities and review of weekly assignments. Grades will be based on the following: Class Participation 20%, Class Assignments 40%, Final Group Assignment 40%

Enrollment constraints
No prerequisites. This course is open to all Institute of Design students.
IDN 533 Strategies for Open Innovation

Course Overview
This course teaches design tactics and strategies for integrating in effective ways knowledge distributed across multiple domains. Open innovation systems, which consist of a productive capacity to design complex solutions by integrating large quantities of relevant knowledge distributed across large networks of people has become a dominant process in designing the aspect that shapes contemporary human experiences. This course is for students who are interested in leading and facilitating multi-disciplinary collaborative projects using design as know-how to innovate. Students will learn design tactics and strategies for knowledge brokering through tutorials, examples, practical activities and simulations. Students will develop the competence of knowledge brokering to transform information into ideas with economic, social, cultural, territorial, and environmental value.

Learning Objectives
In this course participants will learn...
- The key principles that shape design strategies in open innovation systems
- To plan and manage collaborative design practices
- How to allocate design capabilities for increasing productivity in large-scale collaborations
- How to assess productivity in open innovation dynamics
- Design strategies for effectively leading open innovation processes

Learning Outcomes
By the end of this course participants will be able to...
- Strategically plan when and how to deploy design capabilities in large-scale co-creation projects
- Facilitate complex knowledge brokering and ideation activities
- Know how to respond and adjust to new developments in open-ended processes of discovery and innovation
- Improve productivity in multi-disciplinary team dynamics
- Effectively manage ideation flows when knowledge is distributed across large networks of individuals and organizations

Course Outline
W1  Context + Design Strategies
W2  Guidelines + Scorecard + Examples
W3  Workshop Planning + Documentation
W4  Workshop
W5  Workshop Description + Analysis
W6  Workshop Report

Format & Grading
Workshop Planner Template  10%
Workshop Plan 20%
Workshop Documentation 10%
Workshop Report 40%
Class Participation 20%

Class Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 534 Business Models and Value Webs

Course Overview
In this course, students will explore the possibilities of many different business models and envision how they can create sustainable value. Some of the most significant innovation in the last decade has come from combining new product and service offerings with significantly different business models. A bad business model will cripple an emerging company yet a good one can topple large established enterprises.

The course begins with a deeper exploration of the definition of a business model, a discussion of different types and a template for design. We will then explore the key elements of a business model including the value proposition, value delivery, revenue models and financing. Finally, we will consider non-conventional business models like social businesses and their role in creating value.

Learning Objectives
Students will experience distinct business models and link customer experience to business model design. Activities will provide experience in creating multiple types of business models.

Learning Outcomes
Upon completion of this course, students will:
• Understand the concept and terminology of a business model and its components
• Learn to appreciate the interrelationship of business model elements and their impact on the customer experience
• Be able to identify opportunities for business model innovation in an industry
• Be able to understand how a business model fits within the value web of industry participants
• Understand what makes a superior business model
• Be able to communicate a business model effectively to win supporters

Course Outline
2. Business Model Configuration
3. Industry Analysis and Insight
4. Ecosystems and Value Webs
5. Business Model Migration
6. Socially Oriented Business Models and Final Project Review

Format & Grading
Students will have a final group assignment to evaluate and then eventually present a business model for a new product/service to an external panel of judges. Grading will be based on: Class Participation 20%, In Class Assignments 30%, Business Model Design Project 50%

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 535 Organizational Models of Innovation

Course Overview
This course teaches how to strategically enterprise design abilities in open innovation systems. Enterprising design strategies, the capacity to effectively innovate by integrating skills, techniques, sensibilities, practices, processes, and strategies that are institutionally and geographically dispersed has become the biggest challenge for any organization or initiative dependent on innovation to be successful. This course is for students who are interested in planning, implementing and managing complex collaborative projects using design as know-how to innovate. Student will learn how to enterprise design strategies in organizations by learning key concepts, analyzing organizational models through the lenses of design strategies, and modeling design-driven practices and team dynamics in organizations.

Learning Objectives
In this course participants will learn...
• Key principles that shape open innovation systems
• To identify, codify and understand design capabilities as knowledge assets
• Develop design-based organizational models effective in managing innovation ecosystems
• Develop project plans for effectively leading open innovation processes

Learning Outcomes
By the end of this course participants will be able to...
• Strategically plan when and how to deploy design capabilities in large-scale co-creation projects
• Understand the attributes and functioning of design capabilities
• Deploy design capabilities for increasing productivity in large-scale collaborations

Course Outline
• W1 Design Strategies in Open Innovation Systems
• W2 Open Innovation Systems as Networks and Algorithms
• W3 Diversity and Proximity in Open Innovation Systems
• W4 Affordances and Platforms in Open Innovation Systems
• W5 Exploration, Engagement and Ideation Flow in Open Innovation Systems
• W6 Organizational Models for Open Innovation Systems

Format & Grading
Glossary 20%
Diagram of Organizational Model 40%
Project Plan 20%
Class Participation 20%

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 536 Introduction to Portfolio Planning

Course Overview
This course is an introduction to the techniques and processes involved in portfolio planning. (Portfolios being any number of multiple products, services, and associated offerings.) Today’s companies are faced with managing their scarce resources to deliver ever more compelling products and services faster than their competition while generating greater profits. Portfolio planning is essentially how to generate and choose from a number of options to optimize a company’s investment against these and other strategic goals.

Learning Objectives
This course will explore the role of portfolio planning in typical organizations and how it relates to other processes like strategy and product specification. Students will learn the basic techniques and theories for portfolio planning laying the foundation for further studies. Key concepts covered include:

- Ohmae’s Three Cs
- Strategy Canvas / Doblin Ten Types of Innovation
- Customer Segmentation and Adoption
- Porter’s Five Forces
- Buyer Utility Cycle (User Journey)
- Market Lifecycle
- Competitive Landscapes
- Ansoff’s Product Growth Matrix
- Cooper’s Portfolio Scorecard
- Market Excellence (Core Competencies)
- Technology roadmaps

Learning Outcomes
Upon completion of the course students will be able to describe a holistic portfolio plan. They will be able to construct the logic necessary to support the plan’s objectives. Students will also be familiar with typical business planning concepts and their strengths and weakness to contribute to the insight necessary for a compelling portfolio plan. Students will demonstrate theses skills in a paper that provides portfolio recommendations to an assigned product set.

Course Outline
1. Introduction, Company assessments
2. Consumers and customers
3. Competition and Market forces
4. Planning simulation/exercise
5. Opportunity Identification
6. Portfolio Evaluation and Strategic planning

Format & Grading
Each week the class will review assigned readings. There will be one paper due at the end of the course applying the theories and principles covered. It is expected that all students will be physically and mentally present for each class. Grades will be based on: 25% active participation in class discussions, 75% final paper

Enrollment Constraints
No prerequisites. This course is open to all Institute of Design students.
IDN 537 New Venture Design

Course Overview
This course will teach aspiring entrepreneurs how to build design-led start-ups and new ventures. Students will learn how to launch in-market experiments and test new business ideas through iterative ‘explore, create, build and learn’ cycles. This exploration will happen across the four critical elements of a new venture: brand / value proposition, user experience, business model and organization. Students will walk away with an understanding of how to architect new ventures using a combination of user empathy, market data and intuition.

Learning Objectives
New Venture Design aims to teach students how to design new ventures and start-ups in a systematic and disciplined manner, with human empathy at the forefront. Students will learn how to:
• focus the design of new ventures by anchoring around human needs and behavioral insights
• work in sequence through the implications of brand / value proposition, user experience, business model and organization to develop a holistic new venture
• run in-market experiments to generate confidence in an idea and reduce market risk
• interpret in-market learning and persist, pivot or kill an idea based on market feedback

Learning Outcomes
New Venture Design will have a heavy bias toward execution (vs. theory). Classes will rely on the application of new tools, worksheets, approaches, etc. to guide the new venture creation process, as opposed to being heavily lecture-based. By completion of the course, students should have achieved some combination of these outcomes:
• translated an initial spark or inspiration into a holistic new venture idea
• collected market-based evidence to validate the merit of the new venture idea
• developed an experimentation plan to continue refining the new venture idea
• begun to operate aspects of the venture, whether in prototype, alpha or beta form
• developed communication tools to shop the new venture around to stakeholders and investors

Course Outline
< TBD >

Format & Grading
Accomplishment will depend on how much outside-of-the-classroom time students are willing to dedicate to designing and launching their new venture. For this reason, this class is best suited to those that have an idea they’re passionate about and / or are interested in pursuing a career in start-ups post-graduation.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 538 Design Planning Workshop

Course Overview
The goal of this workshop is to plan innovation opportunities in a selected topic of interest. Teams will conceive offerings that an organization can build and map out future possibilities. Teams will go through a structured innovation process that includes researching the potential audience, understanding the context for the innovation, recognizing new opportunities, conceiving systemic solutions, and demonstrating how innovative new offerings will work. The workshop will guide students to build on some key methods described in the book “101 Design Methods: A Structured Approach for Driving Innovation in Your Organization.”

Learning Objectives
Students will go through all stages of an integrated innovation planning process. Emphasis will be on using structured methods for producing reliable results at all stages. There will also be focus on combining user-driven and business-driven innovations in the context of an organization. Students will also learn about how best to plan for future opportunities and demonstrate their value.

Learning Outcomes
• Students will become familiar with a variety of methods to plan innovations for organizations.
• They will also learn about creating systemic solutions and strategies for organizations.
• Students will learn about user-driven frameworks to drive concepts and plans
• They will develop capabilities to demonstrate the value of proposed solutions and plans

Course Outline
1. Design Process and Methods
2. Sense Intent
3. Know Context & Know Users
4. Frame Insights and Opportunities
5. Explore Concepts
6. Frame Solutions / Make Prototypes
7. Produce Documents / Demonstrations
8. Final presentations

Format & Grading
There will be specific topic discussions and work plan meetings at the beginning of each class. During the later part of each class student teams will focus on their project and share their progress. Students are expected to take a proactive role in defining their work plan and activities throughout the semester. Active participation is expected, both operationally and intellectually.

Students will focus on a single project that runs through the whole course. We will form teams of 3 to 5 students at the beginning of the course. We will make efforts to select a project that is sponsored by an organization to give students a close-to-reality experience.

One third of the grade will be based on in-class performance, particularly on attendance and contribution. The other two-third will be based on the student’s contribution to the project. For this, the emphasis will be on innovative approaches, quality of results, and teamwork. Evaluation of project contribution might also include reviews by teammates.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students. Students may take this course multiple times, non-concurrently, for a maximum of 12 credits towards their degree.
IDN 539 Social and Economic Context of Design

Course Overview
This course examines the broader issues and forces that affect the conditions of how design can be effective within typical organizations. Through exercises and application of frameworks to examine these forces, students learn to recognize and adapt design plans to changing contexts.

Learning Objectives
TBD

Learning Outcomes
TBD

Course Outline
TBD

Format & Grading
TBD

Class Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 540 Planning Implementation

Course Overview
Planning Implementation introduces frameworks and methods for effectively navigating change in organizations. One of the biggest frustrations designers face in the real world is seeing their designs sit on a shelf, or worse, become so bastardized that they are unrecognizable by the time they are implemented. Planning Implementation helps students develop skills – and gives them tools – to more effectively address these issues. The underlying philosophy of the course states that any strategy, innovation or initiative is only valuable if executed successfully.

Learning Objectives
Using cases, current events and students’ experiences, the class will explore several key failure modes that organizations fall into which undermine otherwise worthy initiatives. In addition, students will identify (maybe even create some) principles, actions and measures, which can be used to mitigate risks and improve implementation success. Ultimately, this sensitivity to internal implementation issues should inform more robust designs, more likely to see the light of day.

Learning Outcomes
• Understand the importance of the context in which their designs will be implemented
• Learn how organizations (large, small, for-profit, not-for-profit, governmental, etc.) work, what gets in the way of design implementation, and how to navigate change
• Learn frameworks and models for managing change, and will be able to apply the frameworks to systems-level design initiatives
• Develop confidence and ability to respond to real world environments of leadership and change

Course Outline
1. Introduction to Planning Implementation
2. Leadership
3. Structure
4. Process and Communication
5. People systems and Culture
6. Final presentations

Format & Grading
Classes are conducted as presentations, discussions and work-sessions. Active participation in the class discussions and activities is strongly recommended. Because of the highly integrated nature of organizational change, each class will build on previous classes. Therefore, keeping up with assigned readings will be especially important. As we will discuss the readings and cases during class, students should be prepared to share critical viewpoints and experiences.

Thirty percent of the grade will be based on in-class performance (including attendance, enthusiasm and contribution.) Twenty percent will be based on homework assignments. One half will be based on the final project. For the project, the emphasis will be on the innovative application of methods and models, the quality and logic of the implementation plan, and the impact of the presentation.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 542 Behavioral Economics

Course Overview
This course will review fundamental principles in the emerging field of Behavioral Economics and explore how we can use this understanding to create better and more appealing designs. Any new product, service, or interaction is asking people to make a choice to do something differently than what they are currently doing. While the reason for making these changes can be crystal clear to us - the designers - often these great ideas don’t get adopted. Behavioral Economics (and cognitive psychology) have broadened our understanding of how people perceive and make choices, which is critical in today’s highly competitive marketplaces.

Learning Objectives
• Expose students to the fundamental principles of Behavioral Economics and Cognitive Psychology.
• Develop points of view on how these principles can be folded into typical design challenges.

Learning Outcomes
• Familiarity with theories from Behavioral Economics and their relevance to design work
• Hands-on experience with applying these theories to small projects
• Ability to articulate how the field of Behavioral Economics can inform design problems and solutions

Course Outline
1. A tale of two systems: how brains make choices
2. Time + Loss
3. Compartments + Mental Models
4. Ownership + Expectations
5. Quick Indicators + External Cues
6. Bringing it all together

Format & Grading
This class will be a combination of readings, in-class discussions and exercises, and short writing assignments. Grades will be based on 50% - Class participation (includes discussions and exercises) 50% - Out of class assignments.

Table stakes - show up to class and complete assignments on time. If you need to miss a class, communicate with the instructor ahead of time. Failure to do so will reduce your grade by one letter grade.

Enrollment Constraints
No prerequisites. This course is open to all Institute of Design students.
IDN 543 Communication Strategies

Course Overview
This course introduces students to key concepts and methods to communicate design work. This includes a conceptual shift from communication as transmission of content to collaborative construction to better engage and align stakeholders in design work.

Learning Objectives
< TBD >

Learning Outcomes
< TBD >

Course Outline
< TBD >

Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 544 Diagram Development

Course Overview
This course explores the language of diagrams and similar techniques for increasing communication effectiveness. Designers are often challenged with the development and synthesis of complex ideas, whether they are research outputs, design concepts, or system plans. At the same time, the proliferation of easy-to-use graphic and visualization tools facilitates the creation of visual representations that often emphasize aesthetics over communication. Fundamentally diagrams' strength lies in their ability to present information at various levels of abstraction, to show clearly the inherent structure of information, and to summarize what could be lengthy and cumbersome explanations if represented in other forms. This course looks to explore these fundamentals of diagrams as a language and how to effectively use this language to understand and communicate.

Learning Objectives
The goals of this class is to teach the basics of diagram development, including but not limited to:
• Basic principles of good diagramming
• The various types of information that is well supported by diagrams
• Proficiency in using diagrams as a language including syntax and semantics
• The use of interaction and motion to convey meaning

Learning Outcomes
Students will be able to:
• Apply critical cognitive skills to identify inherent relational structures of a given content
• Acquire the capability to create visual representations that reflect that content structure
• Develop a critical eye to discern and evaluate diagrams they see in everyday life

Course Outline
1. Introduction, principles
2. Sequence diagrams
3. Process diagrams
4. Location / Grouping / Hierarchy diagrams
5. Connection diagrams
6. Synthesis, wrap up

Format & Grading
Students will examine case studies and quickly iterate solutions of their own to learn the language of diagrams. Participation in class discussions and proactive critique are essential.

Enrollment Constraints
No prerequisites. This course is open to all Institute of Design students.
IDN 546 Metaphor and Analogy in Design

Course Overview
This course is for any student interested in how to communicate design work more effectively and more fully to clients, teammates and even ourselves. Metaphors, analogies, similes, allegories, metonymies and other visual/verbal devices have fascinated cognitive scientists, therapists, politicians and speechwriters because they have the power to transform the way people think, and how they act in response. Metaphors allow large amounts of information to be assimilated quickly, complicated ideas to be conveyed simply, alternative perspectives to be experienced viscerally and new inferences to be drawn.

Learning Objectives
Skilled use of metaphor and analogy is tricky, but as designers and design planners we need to understand these powerful tools in a more technical manner and build our expertise in applying them. The focus of this course then is to:
1. Define metaphors, analogies, metonymys—and other variations on the theme—so that we might round out our understanding of what’s possible.
2. Survey various approaches to and sources of metaphors and analogies, noting the principles that make for effective ones and postulating which approach works best in a given circumstance, so that we have a breadth of examples to draw from.
3. Make some of our own; there’s nothing like practice to build skill.

Learning Outcomes
Students completing this course will have a working knowledge of how metaphor and analogy can be used in their design work and have practical experience in applying this communication skill to real world challenges.

Course Outline
< TBD >

Format & Grading
This class will be conducted as lecture and critique. Your discussion and presentation of ideas is critical, to both the success of the overall classroom environment and to your grade.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 548 Advanced Diagramming

Course Overview
This course explores and applies dynamic and interactive qualities to content to create understandable, effective visualizations. We will review current theories and examine real-world examples of data narratives, data visualization and time-based visualizations, analyzing motion, narration, transitions, and other visual properties that can enhance comprehension. As this field is evolving and new tools emerging, the course will also look to define additional principles and hypothesis about good design practices.

Learning Objectives
We are in the midst of a visual revolution: cheaper tools, abundant data, easily available templates, and increasing computing power allow anyone to create visualizations and make stories from them. In spite of our intent, the resulting output is often just as complex as the content itself. This course then will help students:
• Be versed in the different types of dynamic/interactive presentations
• Understand strengths and benefits of dynamic presentations
• Be able to strategize how best to apply dynamic/interactive properties to complex information

Learning Outcomes
• Ability to apply dynamic/interactive properties to presentations
• Ability to critique existing visualizations in a constructive manner

Course Outline
<TBD>

Format & Grading
This is a hands-on course and students will create prototypes of dynamic visualizations as part of their activities.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students. Students should be familiar with the Adobe Creative Suite
IDN 550 Communication Design Workshop

Course Overview
This workshop offers students the opportunity to practice methods for design research, concept development, and rapid prototyping of communication design solutions. The course explores a variety of communication design outlets such as traditional communication media, new communication media, multimodal communications, spatial communication, communication systems, urban communication, and networked objects. Teams will discuss the theory, philosophy, technology, and implementation of such media in the real world to solve design problems.

Learning Objectives
Students will participate and develop skills in the major phases of the conceptualization, design, and implementation of a communication design solution to a real world problem. Students will be able to use iterative approaches to problem definition and framing, user research, analysis, synthesis, prototyping and communication of their plans.

Learning Outcomes
Demonstrated ability to begin with a problem space and create communication design solutions to resolve the problem by creating new potential solutions.

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students. Students may take this course multiple times, non-concurrently, for a maximum of 12 credits towards their degree.
IDN 552 Fundamentals of Visual Communication

Course Overview
This course examines the principles and methods of visual representations that are more readily understandable, supporting perception, cognition and usability. In addition to the basics of visual communication, this course also introduces the idea of balancing the needs of the communicators and the qualities of the topic/offering to guide appropriate choices for visual representation.

Design, being an extremely expansive field, includes experts with highly specialized skills. While excelling in their respective areas, many lack the basics of good visual communication design, relying on commonplace or trendy graphic design expressions. Yet being able to communicate ideas that don’t yet exist is a key part of bringing them to life. This course intends to address this gap and develop this essential skill of any advanced designer.

Learning Objectives
Giving students with minimal-2D visual skills the ability to clearly represent their ideas based on integrating:
- content categories
- offering attributes
- communication goals and audience situations

...while simultaneously learning:
- basic visual communication design methods and principles
- different sign systems—text, pictures, diagrams—for effective and clear communication

Learning Outcomes
After completion of this course, students will be able to demonstrate:
- an improved understanding of information related to describing a designed offering and the various ways in which it can be represented via sign systems
- the ability to create visual representations through applying basic visual communication principles in layout and typography to better organize and visually structure the information

Course Outline
< TBD >

Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students. Students should have working knowledge of the Adobe Creative Suite (InDesign, Illustrator, Photoshop) or equivalent.
IDN 554 Theories of Communication

Class Overview
This course is designed for advanced students who have discovered that communication is central to planning work, and who wish to have more insight as to how to craft content and engage others in that work. This course explores theories of communication from multiple fields for application to design planning, including relevant perspectives from education, social psychology, phenomenology and knowledge management.

Design is a field that is as much about learning as it is about creation or problem solving. Learning, or knowing, is something that both planning teams and organizations must constantly engage in to act in a responsive manner. To do this, design planners need insight about how we come to "know" anything—what are the tools at our disposal, theoretical concepts and activities that we might create to build collaborative knowing? Many theorists agree that communication is central to this.

Learning Objectives
In this course, students are exposed to two classes of communication theory. The first group of theories looks at traditional cognitive models of communication—what needs to be in place to help individuals engage, process and integrate new information? These theories can help inform content design, information systems design and even the fundamentals of presenting work to stakeholders and potential funders.

The second group of theories looks to constructivist theories—how can design leverage and encourage a collaborative construction of meaning? These theories can help designers use space, artifacts, and tools to build shared knowledge and engage constituents in a collaborative, experiential manner. This is an important mode of communication for all designers and planners, whose work requires a deep transformation in thinking and organizational will.

Learning Outcomes
Upon completion of this course students will be able to leverage and apply multiple theories of communication towards practical design activities.

Course Outline
< TBD >

Format & Grading
Students will work individually and collaboratively in the classroom (no outside group assignments) to consider the authors and context of each theory, and derive design principles to turn theory into actionable insights for design teams.

Enrollment Restrictions
IDN 556 Communication in the Planning Process is recommended prior to this course. This course is open to all Institute of Design students.
IDN 556 Communication in the Planning Process

Class Overview
This course teaches students how to use communication methods to accelerate synthesis and give tangible form to valuable information throughout the development process. Students are introduced to relevant theories of language, visual perception, visual representation and communication. Through a mix of lecture, group activities, critique and exercises, students receive hands-on experience to ensure concepts are trained into the process.

Learning Objectives and Outcomes
Upon completion of the course students will be able to articulate and apply communication techniques at three points in the design process.

1. Models to describe the mess
The front end of the planning process is information-intensive and highly analytic. Here we look at models for describing and structuring the resulting mess. This includes visual forms that create simple, compact, coherent representations of complex data.

2. Tools for diffusing research findings inside the organization
In typical business consulting, the research is considered a means to an end, rather than as a separate value stream that can inform an organization separately from the final concepts. In this section, we survey techniques for embodying and diffusing research findings in ways that make sense to the organizational culture you are designing for.

3. Framing techniques for strategic positioning
Getting the story straight so that it’s clear and powerful is a perennial challenge in design planning. The most common mistake is to recite a linear timeline of the project and findings, which takes the fresh energy in the room and spends it on information of secondary importance. What we need to learn is how to lead with knowledge, not process. Framing techniques help break the “agony of square one” and create a new space for thinking that drive emotional and intellectual contact with the work.

Course Outline
< TBD >

Format & Grading
Given the breath and application of the topics involved in this course, students are required to participate in every class. Missing even the first class can significantly impede a student’s ability to absorb all of the material presented. Missing two or more classes will likely keep a student from achieving a passing grade for the course.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 562 Modeling Complexity

Course Overview
This course introduces students to visual techniques to translate complex topics into models, diagrams and frameworks as an effective means of taming wicked content into a knowable, sharable conception of a topic. This skill is increasingly important as many problems that designers are wrestling with involve large-scale problem definition. And include subjects and characteristics too large or numerous to conceptualize using memory and cognition alone.

Learning Objectives
While simple models and frameworks often emerge naturally from design work, truly complex topics are difficult to bound and represent without theories and approaches to guide the process. Throughout this course students will be introduced to:
• A range of visual models and approaches for representing complex content
• A structured process for translating dense topics into coherent visual representations
• Principles of visual design to optimize the reading experience of a complex model

Learning Outcomes
Students emerge from this course:
• Conversant with a variety of models and insight as to how to match various types of models to different kinds of complexity
• Experienced in the mapping of complex topics with first-hand knowledge of the benefits and challenges of this approach
• Equipped to negotiate ambiguous topics, build relevant structures, and navigate issues of scope and content development

Course Outline
< TBD >

Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students. Students should be familiar with InDesign or equivalent page layout software
IDN 564 Information Structuring and Management

Course Overview
This course introduces the basic principles and methods for structuring complex information for effective understanding, identifying problems, and guiding solution development. Graph theory, definitions of relations, and structural patterns of relations are introduced as foundation. Examples of information structuring and management include basics of Structured Planning, Semantic Net, and Interpretive Structural Modeling.

Learning Objectives
< TBD >

Learning Outcomes
< TBD >

Course Outline
< TBD >

Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 566 Systems Approach to Design

Course Overview
This course explores systems thinking and approaches in design. The course reviews historical development of systems approaches and contemporary uses of systems thinking in design. Particular emphasis goes to system modeling methods that facilitate designers to observe, describe, analyze, predict/envision, design, prototype, and evaluate behavior and performance of complex systems from different viewpoints. Topics include:

- Concept and definition of systems
- Closed/open systems
- Viewpoints and aspects
- Types of systems and models such as continuous/discrete and deterministic/probabilistic systems
- Example systems such as interactive systems, information systems, natural systems, organizational systems, social systems, socio-technical systems

Learning Objectives
The primary goal of the course is to understand systems thinking and approaches in design. Specific objectives include:

- Enhancement of recursive thinking between abstraction and concretization in design processes
- Developing capability for rigorous but flexible understanding of domains of concern
- Developing ability for applying different system modeling methods

Learning Outcomes
Upon completing the course students will be able to:

- Articulate an understanding of systems approaches to design
- Apply systems thinking and methodology to design problems
- Leverage skills for developing basic diagrammatic system models

Course Outline
- Historical overview and definition of systems
- System modeling and prototyping
- Types of systems
- Systematic design models
- Systems approach to creative process, planning, evaluation
- Summary and presentation

Format & Grading
Classes will be a combination of lectures, discussions, and readings. Weekly assignments with a final project will be used to apply methods covered. Grading will be based on: Attendance, Contribution to class discussions, Weekly assignments: reading and projects, and final assignment report

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 568 Service Systems Workshop

Course Overview
This course is a hands-on workshop to learn and apply service design methods (service design being an iterative, interdisciplinary, multi-touchpoint, and multi-channel approach) to designing for a user experience. Services in this light are increasingly dynamic, interconnected systems that need to be thoughtfully designed and choreographed. Service components can be tangible design elements—graphic, interaction, product, environments—or intangible elements such as roles, organizational structures, and incentives. Designing for services require new approaches and tools that help designers manage complexity throughout the design process.

Learning Objectives
This course will teach Service Design methods and tools that address designing systems with multiple stakeholders, designed elements, and delivery channels. These tools will be used in a team-based project that starts with identifying an opportunity for a service all the way to crafting a service blueprint that documents the structure of the service. The final service solution will consider both the user experience as well as the operations necessary to support the service.

Learning Outcomes
• Understand the definitions and categorizations of services
• Explore the attributes of quality service experiences and the challenges of delivering one
• Gain experience with the design challenges for large scale systems
• Apply tools and processes to an team-based service design project and produce rough service experience prototypes

Course Outline
1. What is Service Design
2. Good service experiences
3. Service Mapping & Generative Research
4. Services + Data Exhaust
5. Service design tools
6. Service prototyping & evaluation
7. Service implementation
8. Final presentations

Format & Grading
Class will be a mix of lectures, exercises, and team project critiques. Each team will identify their own project topic and go through the process of generative research, concept generation, prototyping, evaluative research, design iteration, and implementation. Grades will be calculated thusly:
• 20% in class assignments
• 20% class participation
• 40% team project assignments
• 20% final project

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students. Students may take this course multiple times, non-concurrently, for a maximum of 12 credits towards their degree.
IDN 570 Structured Planning Workshop

Course Overview
This course is a workshop that applies the Structured Planning process to large and complex problems. Specifically, this workshop considers the ways in which design and systems thinking can help model our future. Through this course we rigorously explore new industries, businesses, services, and categories of products that might appear in a topic area of choice.

The course examines a different topic each year. Students develop integrated plans for responding to complex problems and approach these problems with confidence and optimism. The goal for each project is to develop contextual information thoroughly, propose innovative solutions that take maximum advantage of that information, and integrate those ideas into system concepts that can both be evaluated in their own right and (in a real situation) be a used as strategic guidance for a follow-on, more detailed development project.

Learning Objectives
Three major learning goals set the direction of this course:

• Systems. What is the nature of “systems concepts” where policies, products, processes, activities, events, services and communications act together to achieve multiple goals? What can be done to ensure that a system as devised is as complete as possible, covering all required functions and attaining a high degree of “wholeness” and organic reliability?

• Systematic Methods. What is Structured Planning and how can its tool-kit of systematic methods be used to collect, structure, and synthesize information in projects of greater complexity than can be comfortably dealt with intuitively?

• Teams. How do individuals with different backgrounds work together successfully on teams? What behavioral characteristics are important and what principles of group action need to be put into practice?

Learning Outcomes
• Students will become versant in the tools and steps of Structured Planning and how best to apply them towards complex and real world problems
• Students will develop confidence and leadership through a structured approach to complicated problems
• Students will be able to develop Collections of meaningful concepts and express them as a coherent and grounded system.

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students. Students may take this course multiple times, non-concurrently, for a maximum of 12 credits towards their degree.
IDN 571 Systems and Systems Theory in Design

Course Overview
The course investigates principles and methods for representing and understanding structure and behavior of different types of systems. Various forms of theoretical and philosophical frameworks and methodologies are introduced to model and understand fundamental characteristics of domains of concern from different perspectives. Topics include general systems theory, system modeling, causality, and formalisms. The class will also explore example applications of system concepts and modeling methods in design research.

Learning Objectives
The primary goal of this course is to develop capability for understanding subjects of design and design research through frameworks of system theories and philosophy and also for applying system modeling methods to specific purposes in design research.

Learning Outcomes
• Readings of seminal work in system science
• Basic knowledge and skills of system thinking and methodologies
• Example studies of applying system modeling methods to design research

Course Outline
< TBD >

Format & Grading
• Typical classes will be a combination of lecture + discussion + assignment presentation
• Weekly assignment – reading and exercise (individual -4 weeks)
• Final assignment – a small-scale case study (individual –3 weeks overlapping with weekly assignments)
• Grades will be based on: Attendance, Weekly assignments, Final assignment report, Contributions to class discussions

Enrollment Constraints
This course is one of five required courses for the PhD program and thus has a strong emphasis on learning conceptual theoretical, conceptual, philosophical and scientific foundation of systems. Master level students will be permitted by the instructor based on the level of previous research or academic background as well as enthusiasm for gaining theoretical basis of systems and systems theory.
IDN 572 Platform-based Design Strategy

Class Overview
This course explores how platforms provide a base to accommodate many options that can support diverse contexts and user needs. Platform for this course is defined as an innovation strategy that provides a common set of standards to enable a variety of offerings to be built on top of it, creating higher value for all stakeholders involved.

Learning Objectives
< TBD >

Learning Outcomes
< TBD >

Course Outline
< TBD >

Format & Grading
< TBD >

Enrollment Constraints
No prerequisites. This course is open to all Institute of Design students.
IDN 573 Sustainable Solutions Workshop

Class Overview
Contemporary problems and its solutions can be defined as complex adaptive systems because they emerge from the daily behavior of seven billion people looking for better standards of living when confronting the challenges and opportunities shaped by the unprecedented interconnectivity of the world economy, the global society, and the natural environment. In this course students will learn how to apply design methods and strategic thinking through open innovation practices for leveraging the interconnectivity of markets, technology, finance, and social networks in order to envision sustainable solutions with impact in the local lives and wellbeing of communities.

Learning Objectives
< TBD >

Learning Outcomes
< TBD >

Course Outline
< TBD >

Format & Grading
< TBD >

Enrollment Constraints
No prerequisites. This course is open to all Institute of Design students.
IDN 574 Design Process & Knowledge

Course Overview
This course introduces basics of design methodologies concerning design process models and knowledge representation and management. It discusses multiple viewpoints and aspects of design in order to address complexity of information required to implement human-centered approaches. Interdisciplinary collaboration as well as developing and managing effective design processes, methods, and organizations for enabling innovative design practices will be covered.

Learning Objectives
<TBD>

Learning Outcomes
<TBD>

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 575 Sustainable Solutions Seminar

Course Overview
Even though it is well acknowledged that the unprecedented interconnectivity of the world economy, the global society, and the natural environment has a direct impact in the local lives and wellbeing of communities, yet change makers such as corporations, NGOs, investors, entrepreneurs and government agencies involved in these systems struggle to understand how these forces can shape contexts, circumstances, and experiences, limiting their ability to envision sustainable solutions and livelihoods. In this course students will learn key principles and concepts on complex adaptive systems in relation to human-centered design for understanding how product and service innovation can shape sustainable value webs and marketplaces.

Learning Objectives
<TBD>

Learning Outcomes
<TBD>

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 576 System Modeling and Prototyping

Course Overview
This workshop course introduces system-modeling methods for representing different types and aspects of systems including continuous models, discrete models, probabilistic models, and structural models. System modeling and simulation software packages are used to understand and predict the system behavior. Various forms of physical prototyping are also applied as complementary methods to understand, analyze, explore, and evaluate systems through the development process.

Learning Objectives
<TBD>

Learning Outcomes
<TBD>

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 578 Human System Integration

Course Overview
This course teaches students the principles of Human System Integration (also know as Macro-ergonomics or Socio-technical System Design).

Human-System Integration goes a step beyond traditional Human Factors and is concerned with ensuring that the characteristics and needs of people are considered throughout the system development process; especially with regard to their selection and training, their participation in system operation, and their health and safety. Today’s complex systems need to be designed as a whole system rather than piece-meal components. Hence, this course introduces students to the perspectives and principles that can be used when designing complex systems with people and technical subsystems.

Learning Objectives
Students of this course will learn the following:
• Human System Integration, Macro-ergonomics and Socio-Technical System Design Thinking
• Identification of design concerns for large scale complex systems
• Conducting Task Analysis and Function Allocation for a existing or new system
• Analysis of Teams – co-located and virtual distributed teams
• Integrating the solution in to the organization with human centeredness

Learning Outcomes
At the end of this course, students will be:
• Conversant in system-level design theories like Macro-ergonomics, Socio-technical System Design and Human Systems Integration.
• Able to describe the various approaches and methods of Human System Integration and should be able to use it in a project.

Course Outline
<TBD>

Format & Grading
This course is a semester long workshop and so will include lectures, readings (class readings as well as literature review by self) and hands-on work sessions during the class time. The class will do individual/team projects in understanding a complex systems and re-innovating them from a HSI viewpoint. Grading will be based on: Class participation (40%), understanding of theory and subject matter (50%) and submission of assignments and attendance (10%)

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 502 New Product Definition

Course Overview
This course introduces students to the professional and theoretical aspects of the product definition process. Students will define a new product or service in detail, paying special attention to product positioning and differentiation, user experience, business model, volume forecasting, and "lean" approaches to validating the idea with potential customers.

Before an organization can launch a successful new product or service, it needs a clear, compelling vision for what the offering will be, how it will create value for users, and why it matters. Defining a new product along these dimensions will guide the many decisions and trade-offs that development teams will make as an idea makes the journey from concept to commercial product.

Learning Objectives
Develop a forum and opportunity for students to:
• be exposed to challenges and techniques of early concept development
• practice the application of design methods taught in other courses
• iterate and validate conceptual directions

Learning Outcomes
At the end of this course, students will have been through one cycle of professional-level product definition. Outcomes will depend on effort level, but students should come away with a solid portfolio piece (at the least) and potentially with a validated business concept that demonstrates a real consumer need.

Course Outline
Each week we will tackle a different aspect of product definition. New topics will build upon those from previous weeks. Regardless of the topic area, the class will focus on developing clear, concise, and compelling articulations (graphic and textual) of new products. Each class will begin with a review of student work in development, followed by a brief lecture and in-class activities.

Format & Grading
Students are graded on their class involvement and their assignments. Assignments will not be graded until the final class so that students have a chance to iterate.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 503 Design Connoisseurship

Course Overview
Design Connoisseurship introduces Design as a profession in context of both historical and contemporary practice. Multiple perspectives including the human-centered design process, the role of the senses, an appreciation of craftsmanship and importance of stakeholders will be introduced with methods to assess and solve complex problems. Emphasis will be placed on learning how to articulate issues and measures of success involved in a variety of design problems.

Learning Objectives
• Become fluent in matters of design practice and cultures
• Foster a practical appreciation of the formal design skills that complement the conceptual thinking at the core of ID’s curriculum
• Develop a grounded perspective on design disciplines of greatest interest

Learning Outcomes
• Demonstrate and expanded design vocabulary through in-class exercises and outside assignments
• Become fluent in the state of professional practice of design
• Develop a deeper perspective on where to focus individual energy in the balance of time at ID

Course Outline
• History of Design
• The Human-Centered Design Process
• The Role of the Senses
• Appreciating Craftsmanship
• Building your Vocabulary & Critique
• Considering your Stakeholders

Format & Grading
Classes are conducted as lectures, discussions, demonstrations and breakout sessions. The content of the handouts would also be discussed every class. Emphasis is placed on in-class activities to gain understanding of Design language and artifacts. Part of the class time will be spent on discussing research presentations and readings as required.

• Teamwork outside of class: No
• Approximate number of hours teams are expected to work outside of class: 2 hours per week
• Grades calculated on 60% class participation, 40% daily/weekly assignments

Students will work independently on research of historical milestones in Design and contemporary product, service and communication design. Assignments will take form as presentations on findings, evaluation of designs in the world and solving complex problems. Class discussion will focus on critique and iteration of presentations as developed over the course.

Enrollment Constraints
No prerequisites. This course is open to all Institute of Design students.
IDX 504 Prototyping Methods

Course Overview
This course explores the growing number of prototyping methods for design. Although prototyping is often thought of as coming at the end of the design process to verify a solution, our approach maintains that prototyping needs to happen throughout the process from initial research to storytelling, to concept generation, and lastly to refine and improve a selected direction. Prototyping provides designers with an understanding of user behaviors, foster communication, gives an ability to utilize constraints and communicate their solutions to all participants for effective and insightful design decision-making.

Learning Objectives
Students will gain an understanding of (through short practice exercises and short lectures) fundamental types of prototypes and the logic for when and how to employ these techniques.
• Framework for prototyping: Inspire, Evolve, Validate
• Experience vs. resolution
• Brainstorming
• Inspiration collage
• Franken-prototypes
• Scenarios
• Sketch modeling
• Build to think

Learning Outcomes
• Demonstrate the application of methods covered through prototyping products, services interactions and small-scale environments.
• Able to discern and describe the appropriateness of different methods for different contexts and positions within a design development cycle.

Course Outline
1. Introduction and brainstorming
2. Franken-prototypes
3. Inspiration collage
4. Sketch prototypes
5. Scenarios

Format & Grading
Prototyping exercises will be done independently, however, collaboration among students is encouraged. Classes will consist of studying a range of prototyping techniques, demonstrations of drawing and building techniques, and hands-on work to improve a student’s abilities and craft skills to draw and to build. Exercises will include sketching, concept drawing, building scale mock-ups, constructing scenarios and possibly, 3D modeling. It is anticipated that students with a range of experience levels will benefit from the class. Grades will be based on the student’s contribution to discussion and the quantity, quality, and progress of his/her work. Quality work will be highly tangible, conceptually strong, and visually clear.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 506 Form and Materials

Course Overview
This course explores a fundamental challenge of embodying a solution in a physical form: what materials and forms are the best choices? While many technical requirements for creating products define the materials to use and drive product form, designers are also actively defining a company’s brand expression through form and materials. This course looks to examine influences of advanced technology, environmental concerns, and competitive positioning on material and form choices. Topics discussed include: products and performance, craft and maker movement, emotion and brand, and form and material futures.

Learning Objectives
Students will gain a strong understanding for the role materials play in the design of products, the influences on those choices, and how the interplay of form and materials create significant user experiences and beautiful products. Students will gain knowledge of material use as it affects form, brand identity, technology expression, ergonomics, manufacturing methods, and cultural preferences.

Learning Outcomes
Upon completion of this course students will be able to:
• Understand how desired performance drives materials and form
• Articulate fundamentals of 20th century product form and materials
• Evaluate the cultural and social implications of product form and material choices
• Effectively conduct form trends and materials research

Course Outline
1. Introduction
2. Performance materials and form
3. Craft maker
4. Emotion and brand
5. Field trip
6. Futures

Format & Grading
Topics are discussed in a round-robin style on a weekly basis with students. Depending on class size teams may be formed. A small weekly report will likely be the preferred format of homework.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 508 Modes of Human Experience

Course Overview
"User Centeredness" is an understanding of a complex and wide range of influences that affect how people respond to the designed world. This course introduces students to the principles and surrounding factors of the human experience and how to incorporate these perspectives into their work. Combined physical, cognitive, social, cultural, and emotional factors comprise the totality of the human experience and thus are central concerns to fully understand and become "user centered".

Learning Objectives
This course will provide a comprehensive introduction to principles of five basic modes (factors) of the human experience: Physical, Cognitive, Social, Cultural, and Emotional. Students will learn the historical context of these principles as well as contemporary application in various fields of design.

Learning Outcomes
• Know and communicate issues concerning the modes of human experience and their principles for better design
• Able to incorporate appropriately insights from exploring the modes of experience to be user-centered and innovative

Course Outline
1. Physical factors
2. Cognitive factors
3. Social factors
4. Cultural factors
5. Emotional factors

Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 510 Design Development and Implementation

Course Overview
This course covers an overview of development processes from concept to scalable market offering. Additionally, we will address the issues of cost, sustainability and discuss the Maker Movement to see how and where they fit into the development and implementation process.

Learning Objectives
To foster understanding of design development process, and to provide practical knowledge foundation that will enable students to speak intelligently about implementing the products and services that they define.

Learning Outcomes
<TBD>

Course Outline
<TBD>

Format & Grading
This course includes a series of lectures combined with discussions and a comprehensive project. Emphasis is placed on understanding the core principles for developing marketable offerings. Students are encouraged to actively participate in class activities as a part of a group as well as individually. Grading will be based on attendance, project, and participation.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 512 Product Design Workshop

Course Overview
This course is an opportunity for students to exercise their design muscles throughout an entire product development experience from framing through ideation to final concepts. The design process is rarely the clean linear path it is often depicted as. Navigating the nonlinearity, as well as the ambiguity that often accompanies it, is something every experienced designer must be able to do.

Learning Objectives
The goal of this course is to link specific topics of design theory to practice including:
• Framing user needs and desires
• Identifying insights
• Transforming insights into design principles
• Brainstorming ideas and developing prototypes
• Prioritizing solutions and recommendations
• Developing and communicating value

Learning Outcomes
Upon completion of the course, students will be able to manage tasks across the various phases of the design process. They will be able to incorporate various methods and tools during a design project and demonstrate their usefulness in a tangible product concept. The product concept will have an internal and consistent logic that reflects a deep understanding of the problem and solution areas explored.

Course Outline
1. Define direction and concept
2. Design development through prototyping
3. Deliver final product solution through strong communications and presentation

Format & Grading
External sponsors may be used during this course to further represent real world problems and provide the variety of perspectives often involved in design projects. The topic focus of this workshop is defined at the beginning of each semester.

Students with a range of experience will be part of this class. Evaluation will be based on your contribution to class discussions and reviews, and the quantity and quality of your work. Quality work is substantive, conceptually strong, and visually clear.

Enrollment Restrictions
IDX 504 Prototyping Methods is recommended prior to this course. This course is open to all Institute of Design students. Students may take this course multiple times, non-concurrently, for a maximum of 12 credits towards their degree.
IDX 514 Product Architecture and Platforms

Course Overview
This course introduces the concept of product architecture and platform to explore their possible applications to different types of products from different viewpoints. Product architecture is the physical and conceptual structure that integrates product components and subsystems into a coherent mechanism to perform intended behavior and functions. It also reflects rationale and intention of the design such as functions, methods of use, methods of maintenance, and manufacturing. Traditionally, product architecture is implicitly addressed as a part of a core design concept. As the complexity of products increases, the concept of product architecture becomes a critical instrument for systematically bridging various requirements to design solutions.

Learning Objectives
This course introduces the concept of product architecture and platform to explore their possible applications to different types of products from different viewpoints and further expands the concept to systems, services and business from human-centered viewpoints.

Learning Outcomes
At the completion of this course students will be able to:
• Describe the strengths and weaknesses of a design solution from a platform perspective
• Apply theories and approaches to emerging designs to make them stronger and more impactful

Course Outline
<TBD>

Format & Grading
Case studies will be conducted to investigate and discuss ways of implementing the concept on real products. A final project will attempt to develop different product architectures and platforms based on different concerns and viewpoints.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 518 Interaction Design Methods

Course Overview
This course introduces methods for effectively describing the dynamic nature of interaction. Beyond the basic concepts of interaction, underlying theories and design principles will also be discussed to examine understanding user needs, modeling, prototyping, designing, and evaluating interactive systems.

Learning Objectives
The course will cover the following topics:
• Historical development and nature of interaction design
• Cognitive and physical foundations of interaction
• Models of users and interaction
• Unified Modeling Language (UML)
• Interaction methods and principles
• Design approaches and design environments
• Usability and evaluation

Learning Outcomes
• Students will be able to understand, design, and evaluate interaction quality of proposed designs
• Apply methods to consistently describe interactions for the purposes of ideation, exploration, and validation
• Articulate the various roles of products, systems, human agents and organizations in dynamic interaction designs

Course Outline
< TBD >

Format & Grading
Much of the course will focus on the discussion of design cases from product design, media design, communication design, and software design.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 520 History of Interaction Design

Course Overview
This course examines key thought leaders in interaction design, their innovations, and the technology and business contexts that shaped the environment for their work. We will identify important technologies and innovations for human/computer interaction and seek to forecast their future capabilities. We will review and assess successful and failed designs to better understand the elements that led to significant design breakthroughs. The course will cover specific interaction metaphors and discuss the merits and constraints of each including: Command lines, Text Editors, WIMP (Windows, Icons, Menus and Pointing), Direct Manipulation interfaces, Gesture, Touch, Multi-touch, Voice Interaction, and other affordances.

Learning Objectives
Students will gain experience in identifying use problems or opportunity areas that are affected by social and technological trends. They will be able to identify baseline events and map important progress events. They will be able to create representations suitable for environmental scans and offering trend lines. They will examine the importance of ecosystem elements that frame user acceptance and commercial success.

Learning Outcomes
After concluding this course, the student will have gained perspective on the field on interaction design, be able to identify key thought leaders, and explain the innovations and circumstances that led to important progress for interaction design. Also, they will have gained an understanding of emerging design and technology trends that will help them identify the potential for future design breakthroughs.

Course Outline
1. Interaction Design Definition, ENIAC, Punch Cards, Mice, WIMPs, and PCs
2. Interactive Touch Based Systems
3. Wearable Computing
4. Mobile, Gesture, and Haptics
5. Speech I/O, Image Understanding, Augmented Reality
6. Context Aware Systems and Robotics
7. Final presentations

Format & Grading
A final assignment will include an individual presentation that demonstrates investigation into an area of interest and the ability to represent and articulate the relevant technology trends to a broad audience. Students are graded on their classroom involvement (30%), their individual project (50%), and in class assignments (20%).

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 522 Persuasive Interaction Design

Course Overview
This course examines interactive media and focuses on improving the engagement between a provider (e.g. product or service provider) and a consumer (e.g. users, stakeholders, purchasers). Given today’s emerging technology platforms, these interactions would likely occur via a web site, an application, or a product (such as a mobile device). Using the principles of persuasive technologies and design, we will explore theories and techniques to make an offering engaging enough through its interactions to support preferred behavior (such as repeated use, more effective use, or goal achievement) by consumers and to build a ‘digital engagement’ of either enduring quality or an actionable resolution. Also, we’ll explore classic rhetorical structures that may help us create a more purposeful connection between the vendor and their clients.

Learning Objectives
Students will learn terms, models, and theory that will help them assess and frame persuasive opportunities, conceive persuasive interactions to support behavior change, and define a project approach with higher likelihoods for success. Also, they will become conversant in classic rhetorical structures, concepts, and terminologies so that they can better explore digital engagement.

Learning Outcomes
Students will be able to assess end user needs and design solutions that will help support them in their participating in their own behavior changes.

Course Outline
2. Aristotle’s Rhetorical Devices, Fallacies
3. Social Technographics and Project Presentations

Format & Grading
Students are graded on their classroom involvement (30%), their individual project (50%), and in class assignments (20%).

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 524 Interaction Design Workshop

Course Overview
This workshop will explore persuasive interaction design as a technique to help people practice new, desired behavior changes. In particular, we will explore the use of data from “quantified self” devices and/or social media as mechanisms to support behavior change over a sustained period. The course will offer students the opportunity to practice methods for design research, concept development, interaction design, rapid prototyping, and concept validation.

Learning Objectives
Students will participate and develop skills in the major phases of user experience and interaction design by using an iterative approach to problem definition and framing, user research, analysis, synthesis, prototyping and communication of their plans.

Learning Outcomes
< TBD >

Course Outline
< TBD >

Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 526 Digital Development Workshop

Course Overview
This course is designed to teach current and emerging methods and tools to develop ideas into interactive deliverables. The focus of the course is to explore the sweet spot between design and development that plays a critical role in the design process. This role combines knowledge of technology and aesthetics to bridge the chasm between engineering and design.

Learning Objectives
Throughout the course students will learn how to effectively communicate their design intent by producing prototypes and interactive systems. Students will learn how to capture feedback and iterate quickly. And most importantly, develop an opinion of what it means to arrive at a well-designed product. Some of the course’s topics include:
• Motion best practices, animations and transitions
• Designing patterns for good cognitive feedback
• How to work seamlessly with developers for a better workflow
• Communicating Interactivity
• Designing for alternative input methods touch and gesture
• Ways to communicate atypical design concepts

Learning Outcomes
Coming away from the class, students will:
• Understand how basic development/prototyping knowledge can be used to produce meaningful design deliverables
• Learn what makes an effective prototype and how to gather feedback from stakeholders.
• Apply the concepts covered in class to give effective critiques and feedback.
• Learn which tools are available and how to make the most of them for any given project.

Course Outline
• Modern design tools and technologies
• Digital design crash course
• Why and How of Interactive Client Deliverables
• Motion best practice and tooling
• UI Design Best Practices
• Introduction to prototyping with code
• Designing with Data
• Playing nice with Developers
• Alternative prototyping devices
• Final Presentations and review

Format & Grading
Each class will be divided into a lecture (1.5hr) and workshop (2hr). Each class will start with a lecture or discussion of previous week’s assignment. Afterwards, students will be presented with a real-word scenario to apply the lecture material. Grades will be based on: 50% Weekly/Biweekly assignments, 20% class participation, 10% Ability to critique, 20% final project. Above all, students need to bring a “boot camp” mentality to learn a lot of tools and techniques in short timeframe.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students. Although not required, familiarity or exposure to basic programming concepts will be helpful for class assignments as will familiarity with Adobe After Effects, Illustrator, and Photoshop.
IDX 528 Prototyping Interactions

Course Overview
This seminar is a survey of interaction models, prototyping methods, and tools borrowed from computer programming and product design. This review will help designers work at the intersection of social, cultural and technological contexts. The course will also touch on topics in cognitive psychology, sociology, and anthropology with computer science and design.

Learning Objectives
• Expose students to methods of prototyping useful across different stages of interaction design
• Develop the skill to effectively explore relationships between intangible ideas/data and the formal elements that make an idea accessible
• Gain experience with supporting the creative process, at either the individual scale and/or a collaborative team scale

Learning Outcomes
At the end of the seminar, students should be able to envision, evaluate, and communicate interaction design ideas using the multiple layers of sketches, prototypes and interactive peripherals.

Course Outline
1. Introduction to interaction prototyping
2. Low fidelity prototyping/wireframes.
4. High Fidelity Compositions.
5. Wizard of Oz prototypes.
6. Presentation/Communicating prototypes.

Format & Grading
< TBD >

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 530 Interaction Design for Immersive Systems

Course Overview
This course explores issues in design for interactions that are enabled by affordances available in ubiquitous computing, mixed reality, and virtual reality environments.

Learning Objectives
<TBD>

Learning Outcomes
<TBD>

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 532 Interaction Design for Embedded Systems

Course Overview
This course explores interaction design principles, opportunities, and issues for embedded systems. It includes evaluating and creating product concepts for vertical markets and various levels of computing performance, modality affordances, and constraints.

Learning Objectives
Students will learn theory, models, and vocabulary for understanding aspects of embedded systems and will consider the design constraints and opportunities presented in those environments.

Learning Outcomes
Students will be able to analyze and discuss embedded systems using contemporary concepts and create interactive experiences that will make effective use of them.

Course Outline
< TBD >

Format & Grading
Students will work on individual projects.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 534 Interactive Space

Course Overview
This seminar will examine different variations of interactive and reactive spaces. The seminar will concentrate on the theory and construction of, identities and characteristics of actors embedded in, and the technology employed in the design of such spaces.

In a world mediated by computing, we live our lives in intersections between the virtual world and the physical world. Physical architecture is now often augmented, and at times, supplanted by virtual or hybrid architectures. In this seminar, students will be exposed to the continuum between physical and virtual, focusing on interactive concepts in virtual space (such as Second Life, MMORPGs), physical space (such Smart Homes, Networked Cities), or hybrids of the two.

Learning Objectives
Students will use a lecture + case-study method to study and critique examples of interactive spaces. Through these examples, students will gain the ability to evaluate the technological, economic, and socio-cultural implications of interactive spaces and places which offer new ways of working, playing, praying, learning etc.

Learning Outcomes
Students will be able to analyze and discuss interactive spaces using contemporary concepts, theories, and research, as well as create interactive spaces in place of or in conjunction with traditional brick and mortar environments.

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 536 Extensions of Media and Technology

Course Overview
This seminar engages students in a critical discussion about contemporary media and technology and the socio-cultural contexts in which they are situated. Theoretical notions as well as contemporary critique of media, technology and their appropriations will be explored through lecture and discussion sessions.

Learning Objectives
Students will gain critical understanding of the extensions of media and technology in specific social and cultural contexts.

Learning Outcomes
Students will be able to analyze and discuss how media and technology extend beyond their technical purview into the lives of everyday users. Using these contemporary concepts, students will be able to create interactive experiences that are better suited to the specific social and cultural contexts of users.

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 538 Networked Cities

Course Overview
This course will explore the relationships between people and socio-technical systems with respect to the future of living and working in cities. Specific topics may include: emerging innovation spaces and user-driven innovation; privacy and surveillance; collaborative, open source and sharing economies; distributed and networked forms of organizing; citizenship, the role of the public and public space; social innovation and sustainability. Rather than focusing on designing solutions, this course emphasizes the discovery of language and terminology, the definition of new questions and approaches, and the creation of artifacts, probes, scenarios and prototypes that are important for thinking about emergent, future-oriented areas of design.

Learning Objectives
Students will become familiar with key theories from communications, science and technology studies and design in order to develop a nuanced understanding of the relationships between people, technologies and places. Emphasis is placed on applying user research methods (ethnographic observation, qualitative interviewing, data analysis) in order to reframe issues, define design guidelines and create artifacts, probes, scenarios and prototypes.

Learning Outcomes
• Become familiar with theories from communications, science, and technology studies
• Develop a sophisticated, critical perspective on the relationships between people, technologies and places
• Use ethnographic observation, qualitative interviewing, with secondary research and data analysis
• Gain experience with methodologies such as inventive methods, critical making, design fiction, critical and speculative design along with guidelines for the creation of artifacts, probes, scenarios and prototypes.

Course Outline
1. Introduction to Networked Cities
2. History of Communication Technology / Ethnographic Observations
3. Social Construction of Technology / Qualitative Interviews
4. Actor Network Theory / Secondary Research
5. Urban Computing and Urban Informatics / Ecosystem Maps
6. Innovation Networks and Innovation Spaces / Data Analysis
7. Values in Design / User Flows
8. Collaborative Cities / Paper prototyping
9. Networked Economy / Scenarios
10. Networked Labor / Wireframes

Format & Grading
Class time will be focused on lectures and discussions, hands-on activities and field trips as well as individual and group review and critique of ongoing project work. The course will be reading intensive; students will read approximately 30-60 pages of graduate-level material per week during the first half of the course. This course is also research-intensive. About half of the semester (50%) will be spent on gaining a deep understanding of the topic. The second half of the semester (50%) will be spent on using methodologies such as inventive methods, critical making, design fiction, critical and speculative design to create artifacts, probes, scenarios and prototypes that reframe existing issues and assumptions.

Grading will be based on: 20% Class Participation, 30% Weekly Assignments, 50% Final Project

Enrollment Restrictions
IDN 504 Observing Users recommended prior to this course. This course is open to all Institute of Design students.
IDX 540 Networked Objects

Course Overview
This workshop will explore the relationship between digital technologies - new media, urban screens, sensors and radio-frequency identification chips (RFID), mobile and wireless technology, and ubiquitous computing – as they are embedded into physical products/artifacts, spaces and environments as well as architecture and buildings, which is commonly referred to as the “internet of things.”

This workshop takes a critical perspective on technology drawing on theories from communications, science and technology studies and design. The goal of the class is to experiment with and prototype emergent networked objects in order to learn about the opportunities, affordances and constraints of integrating them into our everyday life.

Learning Objectives
Students will become familiar with key theories from communications, science and technology studies and design in order to develop a nuanced understanding of the relationships between people, technologies and places. Emphasis is placed on using a critical design approach to prototyping emergent networked objects. Students will use interaction design methods such as ecosystem maps, paper prototypes, process flows, scenarios, wireframes in order to create rich narratives for products, services and systems.

Learning Outcomes
• Become familiar with theories from communications, science and technology studies
• Develop a sophisticated understanding of the relationships between people, technologies and places
• Gain experience in prototyping using a critical design approach
• Learn to evaluate prototypes as tools for thinking
• Gain experience in interaction design methods such as paper prototyping and well as creating scenarios and wireframes

Course Outline
1. Critical perspective about technology / the “internet of things.”
2. Existing technologies / reflection on opportunities and constraints
3. Emergent networked objects / critical design, critical making, design fiction and speculative design approaches

Format & Grading
Class time will be focused on lectures and discussions, hands-on activities and field trips as well as individual and group review and critique of ongoing project work. The class will be reading intensive and it is expected that students will read approximately 30-pages of graduate level material per week.

Grading will be based on: 20% Class Participation, 30% Weekly Assignments, 50% Final Project

Class Restrictions
IDN 504 Observing Users recommended prior to this course. This course is open to all Institute of Design students.
IDX 542 Analysis + Synthesis in Design

Course Overview
Design analysis is primarily concerned with generating insights that drive the development of new products, services, and communications. The basic question of design analysis is “what is our driving insight(s) that will guide the development of our solution?” Although there is a clear focus on the user, this mode of analysis also includes business and technical issues and frameworks. Design synthesis is concerned with generating solutions that act on the insights developed in design analysis. These solutions can be combination of to new products, services, interactions, and communications.

This course is an introduction to the typical process and tools designers use to understand fuzzy problems and develop insightful directions to pursue. It will start with a review of different approaches to analysis and synthesis. Students will then work on a real world project, allowing them to progress through the major phases of the process, including problem framing, creating frameworks for analysis, using existing frameworks for analysis, generating insights, and establishing a point of view.

Learning Objectives
Students enrolled in this course will learn a variety of approaches modes and tools of analysis and synthesis that generate deep insights and innovative solutions. Typical heuristics along with more elaborate and structured approaches will be covered. Both generative as well as evaluative techniques will be included to maximize exposure to the field of design and its philosophy.

Learning Outcomes
When completed with this course, students will be able to:
• Describe the role of analysis and synthesis in the design process
• Outline a range of approaches and methods, highlighting their strengths and weakness
• Select analysis and synthesis methods appropriate for a client and problem
• Execute the selected analysis and synthesis methods in the context of a design project

Course Outline
1. Solving business problems
2. Product and engineering design
3. Design thinking
4. Strategy formulation
5. Start up thinking
6. Lean thinking

Format & Grading
First 6 weeks – Class will begin with a lecture that introduces the week's analysis/synthesis approach. Students (working in small teams that will change each week) will then have the remainder of the class to finish a simple, in class project to practice and apply the methods. For homework, students will create a critical reflection piece about the methods, including the following content:
• Best uses of the methods
• Limitations of the methods
• Ways to broaden and deepen the methods
• How I might use them on current and future projects?
Second 6 weeks – Students will be assigned to a team and will be provided a real client design problem. The student team will be responsible for assessing the key issues and then selecting the right combination of analysis / synthesis methods to solve the case. The students will then execute the project. The faculty will primarily act as a mentor / coach for this half of the class.

Enrollment Constraints
No prerequisites. This course is open to all Institute of Design students.
IDX 548 Innovation Methods

Course Overview
The course will present an overview of some of the key principles that drive “Design Innovation” followed by a broad look at the design innovation process, various methods, and frameworks. Based on the book “101 Design Methods: A Structured Approach for Driving Innovation in Your Organization”, this course will cover seven modes of innovation: sense intent, know context, know users, frame insights, explore concepts, frame solutions, and realize offerings. The course will also discuss how design innovators and innovation leaders in organizations can effectively use this learning for research, training, project, and strategic applications.

Learning Objectives
Students will go through all stages of the innovation process and practice the use of several structured methods. By applying these methods on a project students will learn about the benefits and limitations of each method. This learning will help them make decisions about which method to use as they encounter various innovation challenges. They will also learn about the kind of information needed as inputs for using these methods as well as the nature of outputs generated.

Learning Outcomes
Student will be able to:
• Understand the value of using structured methods for an innovation process
• Articulate a variety of methods for innovation, their benefits and limitations in practice
• Select the most appropriate methods for specific innovation challenges at hand

Course Outline
1. Integrated Innovation: Drivers, Strategies, Modes, Mindsets, and Methods
2. Sense Intent: Trends Matrix, Intent Statement, From … To Exploration
3. Know Context: Eras Map, Analogous Models, Competitors-Complementors Map
4. Know People: User Observation Database, User Pictures Interview, Image Sorting
5. Frame Insights: Observation to Insights, Insights Sorting, Descriptive Value Web
6. Explore Concepts: Concept Generating Matrix, Concept Sorting, Persona Definition
7. Frame Solutions: Concept Evaluation, Solution Storyboard, Solution Roadmap
8. Realize Offerings: Strategy Roadmap, Implementation Plan, Team Formation Plan
9. Cultivating an innovation culture in organizations
10. Project Presentation and feedback

Format & Grading
The course is intended as a series of presentations mixed with hands-on exercises and discussions. Teams of 3 to 5 students will be formed at the beginning of the course. Each team will select a project topic and work on the application of key methods introduced in the class.

Active participation contributing to the topic discussion is encouraged. Students are expected to take a proactive role in defining their work plan and activities throughout the course. Half of the grade will be based on in-class performance, particularly on contribution to discussions and application of methods during hands-on exercises. The other half will be based on the student’s contribution to the project. For this, the emphasis will be on innovative approaches, quality of results, and teamwork. Evaluation of project contribution might also include reviews by teammates.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 550 Building and Understanding Context

Course Overview
This course will improve critical thinking skills when wrestling with the wide variety of input and insight that often accompanies design initiatives.

Understanding the context of a particular design challenge is critical to ensuring an insightful and reliable solution. Most design challenges today require an astute understanding of the many dynamics at play to see a path forward. Context in this sense is the surrounding landscape of trends and influences across all aspects of design from brand, form, and interaction to platforms, IP, and underlying business models. The course will include basic overviews of argumentation, secondary research, and group-based discussion methods.

Learning Objectives
• Provide a forum for students to build a repertoire of approaches to quickly understand the context of any design challenge
• Hone critical thinking skills to question the validity of reference information and conclusions drawn from them
• Expose students to contemporary issues in the field of design

Learning Outcomes
• Students will be able to collect, organize, and interpret secondary information for the purposes of problem orientation
• Student will be comfortable debating points of view developed as a result of building a context of understanding

Course Outline
<TBD>

Format & Grading
Classes will have lectures on basic tools and frameworks for context building and critique. However, most classes will be focused on identifying and discussing the situation surrounding of a variety of existing products, services, and environments. The bulk of the course will revolve around in-class reviews of contextual assessment assignments.

Enrollment restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 552 Managing Interdisciplinary Teams

Course Overview
This course will teach methods and tools that focus a team's creativity and analysis on the right deliverables, and explore how the basic functional methods of the business world—things like schedules, budgets, emails and meetings—can be informed by design thinking leadership to be more effective for teams composed of multiple disciplines.

In both professional and academic careers, there is an increased need for the skills and experience required for managing and leading inter-disciplinary teams. Producing results, on time and on budget, is a critical part of leadership—and doing so while keeping a team motivated, enthusiastic, and engaged in the final output is the sign of an effective team leader.

Learning Objectives
This class is focused on teaching the principles and theories of managing an interdisciplinary team, and then applying these theories as a manager in a team setting. Although based on management theory commonly applied in for-profit enterprises, this course will also prepare students for the various aspects of designing, implementing, managing, and maintaining a collaborative, interdisciplinary academic research project.

Learning Outcomes
• Students will be gain valuable and direct experience in managing a team comprised of different disciplines through a typical design challenge
• Students will be coached on effective engagement strategies and understand their own leadership styles

Format & Grading
Students will be asked to manage a team of undergraduate students in the IPRO 397 program. The IPRO 397 faculty will work with, monitor, and coach the graduate students while they are managing the 397 teams. The students will be responsible for managing a team, but they will be closely observed by the 397 faculty for coaching and guidance. IPRO 397 will meet on either Tuesday evening from 6:15 – 9:30, Thursday afternoon 3:15 – 5:50, and Friday morning 9:00 – 11:40. Students should block out ONE of these times / sections on their schedule.

Each class will follow a similar structure:
• Review what happened in the 397 class the previous week: what worked, what did not, and why?
• Lecture: topic of the week (the topics have been selected to be useful / relevant to what will be occurring in the 397 class that week).
• Outline the plan for this week, including integrating the lecture content into the coaching plan.

Course Outline
1. Team forming, chartering and activation
2. Making plans / communication
3. Motivation and vision
4. Handling criticism / providing critique
5. Improvising when things go wrong
6. Diligence and deliverables
7. Fostering creativity
8. Decision-making
9. Leadership types and styles
10. Team and individual assessment
11. Preparing and managing a team near deadlines

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 553 Engaging Stakeholders in Innovation

Course Overview
This course focuses on the social dynamics of design as an agent of change and innovation, introducing students to simple frameworks to help them get ideas off the ground and gain support within their organizations. As leaders in large organizations wonder where their next big idea will come from, individuals and teams within these organizations wonder how to get their great ideas to gain traction and attention among executives and peers. The void between ideas and sponsorship gets wider and wider the larger and more hierarchical organizations become, and designers usually struggle to get their ideas to “speak for themselves” in the midst of conflicting priorities.

Learning Objectives
The course will explore cognitive models and simple methods to engage key stakeholders and facilitate organizational buy-in. This is not a process of “idea socialization” or “checking boxes,” but rather of iterative engagement and ongoing organizational dialogue through design leadership to increase the probability that innovation efforts will have consistent and robust sponsorship across different levels of the organization.

Learning Outcomes
By the end of the course, students will be able to:
• Use methods and frameworks to gauge objectives and expectations of different stakeholders around innovation investments and efforts
• Be comfortable designing and facilitating innovation sessions with different types of stakeholders
• Create “boundaries” and “white space” around design projects and innovation portfolios in order to guide stakeholders and give them room to contribute ideas in order to create buy-in

Course Outline
• Team formation, theories of engagement
• Assessing current organizational and external factors to create a case for change through design, evaluating key stakeholders and understanding their motivations
• Creating a sense of visionary aspiration
• Cohering teams around hypothesis/ideas/strategies to close the gap between the present and the desired situation
• Determining the key enablers and barriers to execute change strategies, sharing/delegating responsibilities with/among key stakeholders and project teams
• Final presentations

Format & Grading
Class time will be spent putting methods, principles and frameworks into practice through team activities. The course will be very hands-on, facilitation of a diverse range of stakeholder sessions will be the main type of engagement activity practiced, and EVERY student is expected to lead the facilitation of at least one session or a large part of a session during the course.

We will work in teams of 3 to 4 people. Classes 1 and 2 will be mainly lecture-based, and student activities will focus on team formation and familiarization with key topics. Starting on week 3, every class will include a facilitation demonstration by the professor, followed by practice sessions facilitated by individuals/teams, and closed with a presentation of useful methods and frameworks. Grades will be base on: 30% Individual facilitation, 30% Team assignments, 20% Class participation, 20% Attendance

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students. This course is mainly aimed at students in their second year of the MDES program.
IDX 560 Analysis + Synthesis for Non-Designers

Course Overview
This course is an introduction to the typical process and tools designers use to understand fuzzy problems and develop insightful directions to pursue. The techniques of the field of design are becoming an integral part of many innovative efforts within and across organizations. Understanding the underlying nature of this distinct approach to problem solving will help those in practically any industry be stronger at finding insights that lead to new products, services, interactions, and communications.

Learning Objectives
Students enrolled in this course will learn the modes and tools of analysis and synthesis that generate deep insights and innovative solutions. Typical heuristics along with more elaborate and structured approaches will be covered including:
• Problem framing
• Creating and using existing frameworks for analysis
• Generating insights
• Establishing a point of view
• Exploring and evaluating solutions

Learning Outcomes
When completed with this course, students will be able to:
• Describe basic design processes and how they leverage inductive / abductive / deductive thinking
• Distinguish between initial framing and reframing of problems
• Use pre-existing frameworks to aid in problem solving activities
• Know what makes for good design principles and how they are used
• Facilitate and contribute to productive ideation sessions
• Cluster and combine concepts to develop platforms, concepts systems, and higher-level strategies
• Understand the basics of sketching and storytelling to help communicate new ideas

Course Outline
1. Overview of different analysis approaches / problem framing
2. Creating a framework for analysis
3. Assessing desirability: user focused frameworks
4. Assessing viability: business focused frameworks
5. Assessing viability: capability and technology frameworks
6. Creating custom frameworks and generating a point of view
7. Why Synthesis?
8. HMW Statements, Open-Ended Approaches
9. Structured Approaches
10. Additional Methods and Storytelling
11. Concept Evaluation and Workshop Facilitation
12. Final Presentation

Format & Grading
<TBD>

Enrollment Constraints
Open to all graduate students of IIT. (Students of the Institute of Design should enroll in IDX 542)
IDX 562 Multidisciplinary Prototyping for Entrepreneurs

Course Overview
This course reviews the growing array of techniques and tools used in the field of design to quickly examine the nature of a design challenge and its potential solutions. Physical, digital, 2-dimensional, and 3-dimensional forms will be explored.

Learning Objectives
<TBD>

Learning Outcomes
<TBD>

Course Outline
<TBD>

Format & Grading
<TBD>

Enrollment Restrictions
None.
IDX 597 Special Topics: Ethics in Design

Course Overview
This course is an exploration into the places where rules haven’t been made yet. This course will not offer a legal and ethical checklist, but it will give you the tools to understand deeply what you do as a designer and how it impacts the world around you.

Learning Objectives
Topics will include but not be limited to:
• Balancing cultural values (globalization vs localization) and the role of authenticity
• Sustainability of the environment vis a vis consumerism and consumption business models
• The responsibility of design to address social ills (do designers really speak for people or consumers?)

Learning Outcomes
You will leave the course able to make a clear, grounded argument for the kind of designer you are and the kind of projects you believe in.

Course Outline
<TBD>

Format & Grading
Over 6 weeks, we will go over core readings by the most influential thinkers in design. We will discuss the way their viewpoints have shaped design and their possible relevance to the future, applying them to real projects to test their validity and scope.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 597 Special Topics: Leadership and Innovation

Course Overview
This hands-on course focuses on how to be an effective leader of innovation and how to make innovation happen within large organizations. We know that leadership is the #1 predictor of innovation outcomes in large organizations. Therefore, being a strong leader is a skill that will serve designers well in their careers. Throughout this course, students will cultivate their intrinsic leadership skills, learn how to influence others, and increase their ability to navigate the practical challenges of making innovation happen in large organizations.

Learning Objectives
This class explores leadership at 3 levels, all examined within an innovation context:

• Leadership of Self: “How do I challenge my own orthodoxies, be an inspiration to others, and lead through example?”
• Leadership of Others: “how do I motivate and guide my direct team, influence people within my span of control, and influence other people I work with?”
• Leadership of Organizations: “how can I improve the innovation outcomes and culture of the organizations in which I work?

Learning Outcomes
• Become a more effective innovation leader: gain self-awareness of one’s strengths and weaknesses; understand how to leverage personal strengths and adapt style where required to be a more effective influence and inspiration for others
• Build higher performing innovation teams: build the right talent and dynamics for innovation success, influence others, reduce decision making biases
• Gain practical tools to overcome barriers and create successful innovation in large organizations: understand what it takes to create and commercialize successful breakthrough innovation in a corporate or large organization context, and apply the right tactics to overcome those challenges

Course Outline
1. What is leadership?
2. Leading self
3. Leading others
4. Decision biases
5. Leadership in large organizations
6. Leadership action plan

Format & Grading
• Theory and lecture will be minimal, however a mix of case studies and current academic research will be used to introduce the principles underlying the experiential project work.
• Throughout the course an in-class simulation “game” will be played that will take students through the lifecycle of a company trying to generate breakthrough innovation. Teams of students have to work together to drive the desired outcomes, while facing all of the real challenges that prevent innovation from happening in the real world. We’ll debrief after each simulation, and discuss how leadership plays a role in overcoming these challenges.
• Out of class assignments will include individual experiments and reflection essays, and group work to prepare for the in-class simulation.
• Grading is based on quality of class participation, team work, and individual work. No exams given.

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDX 597 Special Topics: Innovation Narratives

Course Overview
In both professional and academic careers, there is an increased need for storytelling skills and self awareness. TED Talks have truly changed the way we expect content to be delivered. Creating passion-filled, compelling, and effective stories is a critical part of leadership. Class time will be focused on unpacking and exploring five unique approaches to arranging and presenting information for the sake of storytelling. We have words. We have visual elements. We have the ability to interpersonally communicate through body language, personality, and tone of voice.

Learning Objectives
Using real projects, the course will cover five unique techniques for storytelling, visual narrative as it relates to storytelling, offer time for in-class critique, and showcase how to utilize unique personality and ability to tell the best possible story to win over audiences.

Learning Outcomes
Students will:
1. be less dependent on slides to deliver content by developing a consciousness of visual narrative
2. become familiar with useful story arcs for presenting innovations
3. apply theoretical knowledge through interacting with the class and gaining feedback in the moment
4. be more self aware of how their own interpersonal communication style can enhance their ability to tell stories.

Course Outline
Pre-work: Come to class with an innovation idea that’s worth pitching. If you don’t have one, we’ll give you one.

Week 1 The Making of Stories: Introductions, Stoking, Visual Narrative: What to show and what to say?
HW: Building from your insight, create your 3-minute story using pitch story canvas, watch videos provided for inspiration

Week 2 Start-Up Pitch Presenting: HW: Building from your insight, create your 3-minute story using nested loops, watch videos provided for inspiration

Week 3 Nested Loops Story Presenting: HW: Building from your insight, create your 3-minute story using sparklines, watch videos provided for inspiration

Week 4 Sparklines Story Presenting: HW: Building from your insight, create your 3-minute story using the petal structure, watch videos provided for inspiration

Week 5 Petal Structure Story Presenting: HW: Building from your insight, create your 3-minute story using in medias res, watch videos provided for inspiration

Week 6 In Medias Res Story Presenting, Conclusions, Wrap-Up of Class

Format & Grading
Classes start on time. It is expected that all students will be prepared to begin critiques at the start of class. 50% in class participation, 50% weekly stories

Enrollment Restrictions
No prerequisites. This course is open to all Institute of Design students.
IDN 685 PhD Principles and Methods of Design Research

Course Overview
This course surveys a range of research methods from different scientific traditions including science, social science, engineering, and design.

Through a deep reading of monographs (dissertations that have been published as books) from the social sciences and design fields, the following approaches will be discussed: experimental vs. field research, inductive vs. deductive reasoning, positivist vs. grounded theory traditions, quantitative vs. qualitative research, comparative vs. longitudinal studies, descriptive vs. generative methods, and method-driven vs. question-driven research as well as the combination of these traditions into mixed methods approaches. For example, what counts as data? How is it collected and analyzed? What is the overall purpose of the research in these various traditions and how are contributions made and measured?

Learning Objectives
Students will become familiar with key methodological approaches from science, social science, engineering and design in order to provide a strong basis for their individual research. Emphasis is placed on surveying different methodological traditions in order to understand their strengths and weaknesses.

Learning Outcomes
• Students will become familiar with research methods from different scholarly traditions
• Students will develop their own perspective on the methodological approach that they may pursue in their individual research
• Students will gain exposure to previous doctoral research, including its strengths and weaknesses

Course Outline
1. Qualitative Research
2. Quantitative Research
3. Data Collection
4. Data Coding and Analysis
5. Design Research
6. Final Presentations

Format & Grading
Class time will be focused on detailed discussions and close readings of methodological texts from different scientific traditions and scholarly monographs from leading social scientists and designers. Grades will be based on: 20% Class Participation, 30% Weekly Assignments, and 50% Final Project

Enrollment Restrictions
This class is limited to doctoral students at the Institute of Design.
IDN 687 PhD Philosophical Context of Design Research

Course Overview
This course surveys the major philosophies and theories that underpin design research through exposure to some of the most significant scholars and public intellectuals of the last 100 years. Specifically, the following perspectives and traditions will be discussed: pragmatism, structuralism, activity theory, phenomenology, actor network theory, theories of culture and symbolic interaction. For example, what do these traditions offer the field of design and how might we advance these perspectives through design practice? How have these different philosophical traditions become embedded in current philosophies of design research and work?

Learning Objectives
Students will become familiar with key philosophical traditions in order to provide a strong basis for their individual research. Emphasis is placed on surveying different traditions in order to understand their strengths and weaknesses as well as their historical and current contributions to the field of design.

Learning Outcomes
• Students will become familiar with philosophical traditions from different disciplines in the social sciences
• Students will develop their own perspective on the theoretical approach that they may pursue in their individual research
• Students will gain exposure to leading scholars in the social sciences that have made some of the most significant philosophical contributions in the past 100 years

Course Outline
1. Pragmatism and structuralism
2. Phenomenology and activity theory
3. Theories of Culture and Symbolic Interaction
4. Actor network theory
5. Theories of Democracy and Change
6. Final Presentations

Format & Grading
Class time will be focused on detailed discussions and close readings of canonical texts from different philosophical and theoretical traditions. Grading will be based on: 20% Class Participation, 30% Weekly Assignments, and 50% Final Project

Class Restrictions
This class is limited to doctoral students at the Institute of Design.
IDN 689 PhD Research Seminar

Course Overview
This course is a ‘full court’ seminar in which all doctoral students are invited and encouraged to participate and support your doctoral research. The purpose of this doctoral seminar is to stimulate critical, constructive and generous discussion of PhD students’ research and writing in progress, to continue cultivating a lively and supportive intellectual design research community. Weekly readings will also be included to foster discussion.

Investigation and discussion by faculty and students of topics of interest from different perspectives such as building a design research discourse (reading research papers critically, selecting among publication venues); investigating alternative philosophical bases for design research (comparing empirical, pragmatic, and phenomenological approaches); or exploring methodological and theoretical conflicts in design research.

The core assignment is a completion of a paper or article for a peer-reviewed conference or journal. Alternately, the writing for the course could be a draft dissertation chapter or full doctoral research proposal, based on the guidance of your PhD advisor.

Learning Objectives
Encourage and expose PhD work to support the design research community of the Institute of Design and beyond

Learning Outcomes
Students will be able to progress on their own work and develop a rich set of critiques of each other’s work

Course Outline
Weekly discussions as set by the instructor

Format & Grading
Each week will include discussion of core readings, discussion rounds of doctoral students' plans and progress (3 core readings, writing plans), and presentations by doctoral students (critiques of recent PhD dissertations, writing-in-progress). Each student will meet 1:1 with the instructor in relation to writing plans and for review comments on draft writing.

• Identify 3 core research articles that are key works for your doctoral research (one or more can run counter to your thesis, argument is good!)
• Choose a recent PHD-design dissertation to read and write a brief methodological critique with discussion of key concepts, epistemological stance and ontological perspective, generation of knowledge for design. (Critique assignment description will be provided.)
• Each PHD candidate will be asked to present his or her writing-in-progress or research-in-progress during the semester.

Final assignment is full draft of writing for peer-reviewed conference or journal, section of dissertation proposal, or dissertation chapter.

Enrollment Restrictions
This seminar is for ID doctoral students only. Students may take this class multiple times for a total of 12 credits toward their degree.