ADVANCED TOPIC: DESIGN THINKING, BRAINSTORMING & CREATIVITY FOR INNOVATION

IE University
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Academic year: 22-23
Degree course: FOURTH
Semester: 1º
Category: COMPULSORY
Number of credits: 3.0
Language: English

PREREQUISITES

There are no mandatory pre-requisites.

SUBJECT DESCRIPTION

"Good design is design that changes behavior for the better. I think it needs to take into account the context of the environment, of the human condition, the culture and then attempt to make the things you do—make us do them better, make us do better things. It encourages us to change the way that we live." ~ Jon Kolko

Design thinking describes the process of applying the design cycle and mindset to problem-solving. The design cycle typically comprises diverse teams working through interconnected phases of empathic user-centered research, creative thinking, prototyping, testing and implementing or returning to any of the other phases to refocus. Design thinking is not a new idea, but continues to gain traction and popularity in the business world as startups, entrepreneurs, and companies like Apple, Disney, IDEO, P&G, Google, Nike, and Starbucks publicly credit it with successful innovation and further integrate design into their respective corporate cultures. Design thinking is seen as offering a new approach better suited for dealing with ever-increasing pressures for growth and innovation.

Great. So... what is it, how does it function, and why bother? This practical course aims to answer those questions, and, in the process, demystify the faddish glamour which may currently obscure much of the value of design thinking. Design thinking can help business professionals improve their organization's innovation equation, help design professionals use their skills to manage teams and generate profit centers, and help normalize expectations on both sides. In this course we will use a few human-centered design methodologies which are often seen in tandem with design thinking, and familiarity with which are becoming non-negotiable in the professional world.

Though design as a craft requires years of dedicated education and talent to master, design thinking, as a problem solving approach, does not. However, the human-centered focus, and the rigor and creativity required to maintain that focus over the entire course of a project, sets design thinking apart from other methods of problem solving.

OBJECTIVES AND SKILLS

The course aims to train students in applied creativity models for creating and building business opportunities, from conceptualization to detail.

We understand and transmit the importance of the placing people (user / client) at the center of new opportunity development, and embrace the culture of design and prototyping.

Through regular attendance and active participation in the course, students will learn to:

1. How to keep people at the center of all parts of the process.
2. Recognize and apply human centered design and how it is manifested in different design and development methodologies.
3. Work in multidisciplinary teams which are comfortable with ambiguity, reframe failure as a learning experience, and bring emotion into business decisions in effective ways.
4. Apply systematic processes for converting data into insights, asking rich questions, ideation, experimentation, iteration, and implementation of solutions; and to articulate concrete actions that impact strategy, design and business.
5. How to innovate not just based on people's current needs, but thinking about the mid and long term impact.

METHODOLOGY

The course will be taught employing IE's Liquid Learning methodology. Liquid learning is a transformational and interactive educational experience that transcends single methodologies and platforms to blend physical, digital and natural environments so that students obtain a world-class education no matter their location or situation. Students will learn alongside one other and work together in teams. Hybrid brings together the human, digital and natural worlds into a seamless whole and enables IE University to be a truly global campus. The Liquid Learning methodology combines three essential elements for a complete and dynamic learning experience: synchronous interactions, asynchronous interactions and individual inquiry and discovery.

Synchronous Interaction is learning that happens in live, in real-time. For example, attending classes (lectures, discussions, labs, studios) in-person or virtually, working with classmates on team projects in a work-room or video-conference platform, or getting help and feedback from professors in-person or online.

Asynchronous Interaction and Individual Inquiry and Discovery are learning experiences that happen interactively and asynchronously using collaboration tools and digital platforms. For example, debating topics in a digital forum, critiquing the work of classmates posted in a digital gallery, working on a proposal or project using a collaborative document-sharing platform, or getting help and learning support in messaging-based system.

Almost all team work will be done in Miro.

The course will be divided into 3 modules. Each module will consist of synchronous and asynchronous interaction and will have a theoretical and practical component. Students are expected to apply what they are learning not only to their group projects but also to the broader real-world context.

Module I: Introduction to Human Centered Design and Methodologies, Problem Space
Module I will serve as an introduction to human centered design and the methodologies which make use of the approach with a focus on design thinking. During this module, we will begin our course-long project by receiving the challenge and entering into problem space. Students will learn the necessary tools to devise a viable project challenge, perform research, and use tools and mindsets to analyze the data and then synthesize provocative insights which will form the basis of the concrete problem they will solve. Students will focus on real people with real problems in the real world, not abstractions or hypothetical simulations. Key deliverables for this module will be sacrificial concepts, research plans, visualizations, insights, and problem statements.

Module II: Solution Space
Module II is when students will transition from Problem Space to Solution Space. Answers to the problem questions will be sought via a process of ideation, so that teams may begin testing with artifacts as quickly as possible and through as many iterations as time will allow. Key deliverables for this module will be artifacts and evidence from the ideation, prototyping, and testing processes. Students will also begin a personal design thinking project in this module.

Module III: Communication, Implementation, Delivery
Module III moves the teams' focus from evolving suitable solutions to delivering those solutions into the world effectively. Great attention will be paid to the form and function of communication methods at this stage of the project. Key deliverables for this module will be final presentations and reports, as well as final delivery of the personal design thinking projects, peer evaluation, and a personal reflection.

Teaching methodology	**Weighting**	**Estimated time a student should dedicate to prepare for and participate in**
Lectures	13.33 %	10 hours
Discussions	13.33 %	10 hours
Exercises	26.67 %	20 hours
Group work	26.67 %	20 hours
Other individual studying	20.0 %	15 hours
TOTAL	100.0 %	75 hours

PROGRAM

The following program is tentative. Although we will cover all of the listed topics, the selected readings, activities and pace of the class depends on group performance. Additionally, we may have to rearrange some sessions in order to accommodate guest speakers or field trips. Unless otherwise noted, you are expected to complete all corresponding reading BEFORE attending the session.

TISDD is an acronym for *This Is Design Doing*, the primary textbook for the course.

SESSION 1 (LIVE IN-PERSON)

Topic(s): Course Overview. Expectations. Evaluation Criteria. Introduction to Human Centered Design, Design Thinking, and the Challenge.

Reading: TISDD Chapters 1, 2, & 4. (See Bibliography)

Activities: Lecture. Discussion. Group work.

Book Chapters: This is service design doing (Chapters 1, 2, & 4) (See Bibliography)

SESSION 2 (LIVE IN-PERSON)

Module I: Introduction to Human Centered Design and Methodologies, Problem Space.

Topic(s): Introduction to Ecosystem Research and Research Plan.

Reading: TISDD Chapter 5.1-5.2. (See Bibliography)

Activities: Lecture. In-Class Debate. Discussion.

Book Chapters: This is service design doing (Chapter 5.1-5.2) (See Bibliography)

SESSION 3 (LIVE IN-PERSON)

Module I: Introduction to Human Centered Design and Methodologies, Problem Space.

Topic(s): Ecosystem & Research Plan feedback.

Reading: TISDD Chapter 11. (See Bibliography)

Activities: Interactive video explaining main concepts and showing examples. Team work and feedback on Miro board. Individual Reading Assignment.

Book Chapters: This is service design doing (Chapter 11) (See Bibliography)

SESSION 4 (ASYNCHRONOUS)

Module I: Introduction to Human Centered Design and Methodologies, Problem Space.

Topic(s): Introduction to mapping for data analysis.

Reading: TISDD Chapters 3 and 5.3-5.4. (See Bibliography)

Activities: Lecture. In-Class Debate. Discussion. Interactive video explaining main concepts and showing examples. Groupwork – Brainstorm research topic and do research. Group meetings with the professor to discuss research questions.

Book Chapters: This is service design doing (Chapters 3 and 5.3-5.4) (See Bibliography)

SESSION 5 (LIVE IN-PERSON)

Module I: Introduction to Human Centered Design and Methodologies, Problem Space.

Topic(s): Feedback to mapping for data analysis.

Reading: None.

Activities: Team work and feedback on Miro board. Individual Reading Assignment.

SESSION 6 (ASYNCHRONOUS)

Module I: Introduction to Human Centered Design and Methodologies, Problem Space.

Topic(s): Introduction Synthesis & Insights.

Reading: The Selfish Gene, Chapter 11. Exposing the Magic of Design, Chapter 2.

Activities: Lecture. Discussion. Groupwork.

Book Chapters: The Selfish Gene (Chapter 11) (See Bibliography)

Book Chapters: Exposing the Magic of Design (Chapter 2) (See Bibliography)

SESSION 7 (LIVE IN-PERSON)

Module II: Solution Space.

Topic(s): Feedback on Synthesis & Insights.

Viewing : Game of Thrones: How Power Really Works. How to Uncover Valuable Design Insights, Cristóbal Perán. Frog Design, 2020.
Activities: Team work and feedback on Miro board. Individual Reading Assignment.
Video: Game of Thrones: How Power Really Works (Youtube)
Other / Complementary Documentation: How to Uncover Valuable Design Insights (frog.co)

SESSION 8 (LIVE IN-PERSON)

Module II: Solution Space.
Topic(s): Introduction to Ideation. Introduction to Personal Design Thinking Project.
Reading: TISDD Chapter 6. (See Bibliography)
Activities: Lecture. Discussion. Groupwork.
Book Chapters: This is service design doing (Chapter 6) (See Bibliography)

SESSION 9 (LIVE IN-PERSON)

Module II: Solution Space.
Topic(s): Feedback on Ideation.
Reading: None.
Activities: Team work and feedback on Miro board. Individual Reading Assignment.

SESSION 10 (LIVE IN-PERSON)

Module II: Solution Space.
Topic(s): Prototyping & Testing.
Reading: TISDD Chapter 7. (See Bibliography)
Activities: Lecture. Discussion. Groupwork.
Book Chapters: This is service design doing (Chapter 7) (See Bibliography)

SESSION 11 (LIVE IN-PERSON)

Module II: Solution Space.
Topic(s): Business Case and implementation plan.
Reading: TISDD Chapter 8. (See Bibliography). There Are 9 Types of Businesses, article.
Activities: Lecture. Discussion. Groupwork.
Article: There Are 9 Types of Businesses (AUG 8, 2017) (INC)
Book Chapters: This is service design doing (Chapter 8) (See Bibliography)

SESSION 12 (LIVE IN-PERSON)

Module II: Solution Space.
Topic(s): Feedback on Business Case and implementation plan.
Reading: None.
Activities: Team work and feedback on Miro board. Individual Reading Assignment.

SESSION 13 (LIVE IN-PERSON)

Module III: Communication, Implementation, Delivery.

Topic(s): Communication Plan

Viewing: TED's Secret to great public speaking.

Activities: Lecture. Discussion. Groupwork.

Video: TED's Secret to great public speaking (Youtube)

SESSION 14 (ASYNCHRONOUS)

Module III: Communication, Implementation, Delivery.

Topic(s): Presentation Dry-runs and feedback. Delivery of Personal Design Thinking Projects.

Reading: None

Activities: Presentation first drafts, feedback on presentations, office hours.

SESSION 15 (LIVE IN-PERSON)

Module III: Communication, Implementation, Delivery.

Topic(s): Final Presentations.

Reading: None

Activities: Final Presentations.

BIBLIOGRAPHY

Compulsory

- Marc Stickdorn, Markus Edgar Hormess, Adam Lawrence, Jakob Schneider.. (2018). *This is Service Design Doing.* 1st edition. O'Reilly Media. ISBN 9781491927182 (Printed)

Recommended

- Richard Dawkins. (2016). *The Selfish Gene.* OUP Oxford. ISBN 0198788607 (Digital)

Only Chapter 11

- Jon Kolko. (2015). *Exposing the Magic of Design.* OUP USA. ISBN 0190276218 (Digital)

Only Chapter 2

EVALUATION CRITERIA

Design Thinking Group Project (35%): As part of the course, students will be asked to complete a project following human centered design methodologies. The assignment will consist of four parts: an exploration in the domain and ecosystem related to the challenge, analyzing and synthesizing the collected data, developing and testing solutions to the defined problem, and communicating a holistic implementation or launch. Student groups will document the projects using visualization tools and reports, and the class will be responsible for providing peer feedback for other groups' work and presentations. I will discuss the project in further detail in the first two sessions. I will also provide detailed instructions and post them on Campus online.

Individual Design Thinking Project & Reflection (20%): As part of the course, you will work individually on a personal design thinking project related to your own life. We will dedicate time throughout the course to develop the project and students will be asked to complete a peer evaluation and personal reflection as part of the final assessment. The guidelines and expectations, including the evaluation rubric will be introduced during session 3 and further discussed throughout the course.

Continuous Evaluation (25%): Students will have several in-class and asynchronous assignments in which they will work as individuals and in groups to apply the tools and methodologies that they are learning in various assignments. These assignments will complement the theoretical components of the course and help students gain a broader understanding of how to use human centered design methodologies such as design thinking, lean startup, and agile workflows. They will contribute to the students' theoretical knowledge and serve as an opportunity to apply what you are learning to real-world situations. Aomong these will be quizzes, peer evaluations, and short personal reflections.

Class Participation and Engagement (20%): Class participation and engagement will be evaluated based on the quality (not quantity) of your participation in class discussion, online forums and other activities that take place during synchronous and asynchronous sessions. The most important component of your participation is the content of what you are saying. A high quality comment reveals depth of insight, rigorous use of case evidence, consistency of argument, and realism. People who speak often but whose comments lack substance will not be rewarded in the same way that people who speak less frequently but with rich content that furthers the class discussion. That said, your attempts at participation should not be such that the instructor has to "go looking for you". You should be attempting to get into the debate on a regular basis. Listening is an equally important component of class participation. Please be mindful of how much you are speaking versus listening and ensure that this class is an environment in which all of us are encouraged to do both. Students who are disruptive or disrespectful will be asked to leave the classroom and will be counted as absent for that day. No exceptions.

Finally, you might want to avoid being classified as one of the following types of students:

- ***Repeaters****: students who, consciously or unconsciously, make comments that are really just repeats/rephrasing of what has already been said (by other students, or yourself). This is a waste of time and does nothing to move the conversation along.*
- ***Ramblers****: students who take a lot of time to say simple things or may tell long personal/professional stories, or roam into irrelevant topics, or simply make low quality comments just to participate. They waste valuable time and prevent other students from being able to participate.*
- ***Space Cadets****: Students who have been distracted (by Whatsapp, Insta, Facebook, etc.) or who have stopped paying attention and then, later on, when they realized they have missed a term or concept, ask you about it even though it has already been discussed.*

Criteria	Percentage	Comments
Group Design Thinking Project & Presentation	35 %	
Individual Design Thinking Final Project & Reflection	20 %	
Continuous Evaluation	25 %	
Class Participation & Engagement	20 %	

PROFESSOR BIO

Professor: **ANDREW PETER WALLACE MCCARTHY**

E-mail: apmccarthy@faculty.ie.edu

Andrew PW McCarthy is a designer, consultant, and educator. Andrew relocated from New York City to Madrid about a decade ago and works internationally as a designer, art and creative director, and innovation consultant in multinationals and a great many startups, advising and leading organizations to deliver impact via innovation processes, creativity, strategy, customer and user experience, and design. Andrew studied philosophy and the history of math and sciences, then design, and now teaches design and creativity, innovation processes, and entrepreneurship as an Associate Professor at IE, and Visiting Professor at Trinity College Dublin and other schools. Andrew is the founding and current Academic Director for the Master in Customer Experience & Innovation at the IE School of Human Science and Technology. Over the course of the past twenty years, Andrew has developed hundreds of projects, delivered courses, conducted masterclasses, and facilitated workshops with thousands of students and participants on almost every continent. Andrew speaks and moderates at events and conferences, practices improv and plays music, and lends his voice to ads and audiobooks, his daughters' bedtimes, and the startlement of animals great and small.

OTHER INFORMATION

Technology in the Classroom – It is my preference that all students connect to Zoom during the sessions we meet, including students in the hybrid classroom. This means that I encourage and expect students to bring their laptops and chargers to class. That said, if I catch you using the laptop inappropriately during class, I will give you a warning. If you are caught a second time, you will be kicked out of the classroom and marked as absent for that day. I am very strict about this. The use of mobile phones will not be permitted under any circumstances during this course.

Assignments – I know that things can happen unexpectedly and it is impossible to prepare in advance for everything that life throws at you. For this reason, I will grant each students a 24 hour grace period on ONE assignment (except the group project) during the course of the semester. For all other late assignments, your grade will drop 5% each day that it is late.

Attendance – Attendance at all scheduled classes is mandatory and essential for success in the course. Missing more than 30% of class sessions will result in an automatic fail of the course. If you miss class for any reason, you are responsible for getting notes from classmates. If you have questions about any assignments please send me an email. Under most circumstances, students who miss a class in which a presentation, mid-term, or final exam is held will not be granted an exception or given an opportunity to do a make-up assignment or exam. However, if illness or other circumstances prevent you from adhering to the assignment/presentation due dates stated in this syllabus, an exception may be granted at the discretion of the professor. In all cases, the student must provide official documentation (e.g., from a medical doctor, counsellor) to the professor within 24 hours of the missed due date. If you are unable to make it to a session, I appreciate an email letting me know, but absences will only be excused for extraordinary circumstances and with valid evidence documenting your absence.

I'd also like to remind you that attendance is not just about showing up, it is about being an active listener and contributor to class discussion. Please come to class on time, with questions and opinions about the readings and lectures. I will plan the sessions to be active and engaging, but this format only works well if you are present, both physically and mentally. I have zero tolerance for lateness, disrespect of me or your peers or unruliness. I will ask students who do not come to class prepared to be active and engaged to leave the classroom. These students will be marked as absent.

Office Hours –Due to the changeable nature of my schedule, I will not have set office hours. If you would like to speak with me, we can arrange to meet before or after class or you can email me for an individual appointment. Most of the time I will prefer virtual meetings if not scheduled around class hours, as I come to campus primarily for class sessions.

Per University Policy:

Each student has 4 chances to pass any given course over two consecutive academic years (regular period and July retake period). Failure to pass students who do not comply with the 70% attendance rule during the semester will lose their 1st and 2nd chance, and go directly to the 3rd one (they will need to enroll again in this course next academic year). Grading for retakes will be subject to the following rules:

Students who failed the subject in the first regular period will have to do a retake in July (except those not complying with attendance rules who are banned from this possibility and must automatically re-enroll the following year).
Dates and location of the July retakes will be posted in advance and will not be changed under any circumstances. Please take this into consideration when planning your summer. In the event that you decide to skip the opportunity to re-sit for an exam during the re-take period, you will need to enroll in the course again for the following academic year and pay for the corresponding costs.

The maximum grade that a student may obtain in the re-take exam is 8 out of 10.
Students in the 3rd call will be required to attend 50% of the classes. If there is a schedule overlap, a different option will be discussed with the professor in order to pass the subject.
Students failing more than 18 ECTS credits after the June-July re-sits will be asked to leave the program.

Students with Special Needs:

To request academic accommodations due to a disability, please contact Jessica Tollette via email at: jessica.tollette@ie.edu.

Student Privacy Statement:

At times, students may disclose personal information through class discussions. It is expected that all members of the class will respect the privacy of their classmates. This means that the information disclosed in the class will not be repeated or discussed with other students outside of the course.

Decisions about Grades:

Decisions about grades are made very carefully, and are final at the end of the course. If you have questions regarding a certain grade or you would like to receive personal feedback, you must request a meeting with me to discuss grades on specific assignments before the last session of the course. Any disputes regarding grades must be resolved before the final session. “Extra credit” or makeup assignments will only be allowed under extenuating circumstances at the sole discretion of the course professor.

ACADEMIC INTEGRITY

Unless you are specifically instructed to work with other students in a group, all of your assignments, papers, projects, presentations, and any work I assign must reflect your own work and thinking.

What is academic integrity? When you do the right thing even though no one is watching. The core values of integrity, both academic and otherwise include: honesty, fairness, respect, responsibility, and trust. Academic Integrity requires that all students within Instituto de Empresa (IE) act in accordance with these values in the conduct of their academic work, and that they follow the rules and regulations concerning the accepted conduct, practices and procedures of academic research and writing. Academic Integrity violations are defined as Cheating, Plagiarism or other violations of academic ethics.

Cheating and plagiarism are very serious offenses governed by the IE student code of conduct. Any student found cheating or plagiarizing on any assignment or component of this course will at a minimum receive a "0" on the affected assignment. Moreover, the student will also be referred to the University Judicial System for further action. Additional penalties could include a note on your transcript, failing the class, or expulsion from the university.

It is important to note that, while the list below is comprehensive, it should not be considered exhaustive.

Cheating includes:

1. An act or attempt to give, receive, share, or utilize unauthorized information or unauthorized assistance at any time for assignments, papers, projects, presentations, tests or examinations. Students are permitted to mentor and/or assist other students with assignments by providing insight and/or advice. However, students must not allow other students to copy their work, nor will students be permitted to copy the work of other students. Students must acknowledge when they have received assistance from others.
2. Failure to follow rules on assignments, papers, projects, presentations, tests or examinations as provided by the course professor and/or as stipulated by IE.
3. Unauthorized co-operation or collaboration.
4. Tampering with official documents, including electronic records.
5. The impersonation of a student on presentations, exercises, tests or an examination. This includes logging onto any electronic course management tool or program (e.g. Black Board, etc.) using someone else's login and password.

Plagiarism includes:

- Using the work of others and attempting to present it as your own. For example, using phrases or passages from books, articles, newspapers, or the internet and not referencing them properly in your document. This includes using information from others without citing it, misrepresentation of cited work, and misuse of quotation marks.
- Submitting an assignment or paper that is highly similar to what someone else has written (i.e., minimal changes in wording, or where the sentences are similar, but in a different order).
- You don't have to commit "word for word" copying to plagiarize – you can also plagiarize if you turn in something that is "thought for thought" the same as someone else.

Other violations of academic ethics include:

- Not acknowledging that your work or any part thereof has been submitted for credit elsewhere.
- Misleading or false statements regarding work completed.
- Knowingly aiding or abetting anyone in committing any form of an Academic Integrity violation.

CODE OF CONDUCT IN CLASS

- Be on time: Students arriving more than 5 minutes late will be marked as "Absent". Only students that notify in advance in writing that they will be late for a specific session may be granted an exception (at the discretion of the professor).
- If applicable, bring your name card and strictly follow the seating chart. It helps faculty members and fellow students learn your names.
- Do not leave the room during the lecture: Students are not allowed to leave the room during lectures. If a student leaves the room during lectures, he/she will not be allowed to re-enter and, therefore, will be marked as "Absent". Only students that notify that they have a special

reason to leave the session early will be granted an exception (at the discretion of the professor).

- Do not engage in side conversation. As a sign of respect toward the person presenting the lecture (the teacher as well as fellow students), side conversations are not allowed. If you have a question, raise your hand and ask it. It you do not want to ask it during the lecture, feel free to approach your teacher after class. If a student is disrupting the flow of the lecture, he/she will be asked to leave the classroom and, consequently, will be marked as “Absent”.
- Use your laptop for course-related purposes only. The use of laptops during lectures must be authorized by the professor. The use of Social Media or accessing any type of content not related to the lecture is penalized. The student will be asked to leave the room and, consequently, will be marked as “Absent”.
- No cellular phones: IE University implements a “Phone-free Classroom” policy and, therefore, the use of phones, tablets, etc. is forbidden inside the classroom. Failing to abide by this rule entails expulsion from the room and will be counted as one absence.
- Escalation policy: 1/3/5. Items 4, 5, and 6 above entail expulsion from the classroom and the consequent marking of the student as “Absent.” IE University implements an “escalation policy”: The first time a student is asked to leave the room for disciplinary reasons (as per items 4, 5, and 6 above), the student will incur one absence, the second time it will count as three absences, and from the third time onward, any expulsion from the classroom due to disciplinary issues will entail 5 absences.