COURSE SYLLABUS

DESIGN THINKING

IFSA Barcelona

US semester credit hours: 3
Contact Hours: 45
Course Code: ID310-05
Course Length: Semester
Delivery Method: Face to face
Language of Instruction: English

COURSE DESCRIPTION

Design thinking is a powerful approach to solving a wide variety of problems across many different disciplines. It is so flexible and useful that for some people it starts to become a way of life – they simply can't stop themselves from using design thinking to sort through and solve challenges and pursue opportunities. However, at its core design thinking relies on creativity and unless one has already unleashed their innate creativity, then design thinking's power is constrained. Therefore, in this truly interdisciplinary course, students build their "creative confidence," learn design thinking, and apply these skills to a variety of challenges. The outcomes of this course are applicable to a variety of disciplines and professional pursuits.

COURSE DELIVERY

Much of this class is experiential in that students will learn concepts and frameworks, and also put them into action. Thus, prior to class, students are expected to have read the assigned material, met with their teammates, and conducted relevant research and performed exercises so that they can make the most of their time in class. Active participation is required.

In many meetings, the instructor will provide an overview the topic and then facilitate a group discussion, drawing out relevant themes, following up on specific lines of inquiry, and prompting students' thoughtful engagement with the topic. There are occasions when students will work on exercises and design challenges with their teammates during class time so that the instructor can help facilitate and guide their process.

Students are encouraged to bring their prior learning experiences into class discussions (based on experiential learning theory) and to make cognitive connections between this course and others whenever possible (based on the philosophy of integrative learning).

The class meets twice per week over the course of a semester.

STUDENT LEARNING OBJECTIVES

Students who successfully complete this course will:

1. Rediscover their innate creativity and build their creative confidence.

2. Learn and put into practice design thinking principles.
3. Work in teams of two or three to design a solution to a challenge or opportunity.
4. Write a coherent and persuasive design-thinking plan.
5. Orally present their design.
6. Become aware of additional resources for further research on design thinking.
7. Make cognitive connections between learning in this course and other learning experiences in IFSA Barcelona.

COURSE OUTLINE

Meeting	Date	Topic	Activity & Work Due
1		Orientation to the course	Review syllabus, due dates, and expectations
2		Creative confidence and "mindmaps"	1) Read *Creative Confidence*: Preface, Intro, and Ch. 1 2) Focus class discussion on authors' thesis and views of creativity 3) Explain and do "Creativity Challenge" #1 on pages 212-216
3		Overcoming fear of failure ***1st paper due***	1) Read *Creative Confidence*: Ch. 2 ***2) Due: Individual reflection paper on fear of failure*** 3) Focus class discussion on sources of fear of failure and ways to overcome them 4) Explain and do "Creativity Challenges" #2 and #3 on pages 217-221
4		Inspiration	1) Read *Creative Confidence*: Ch. 3 2) Focus class discussion on sources of inspiration. 3) Explain and do "Creativity Challenge" #4 on pages 222-224
5		Working in teams: Theories	1) Read *Creative Confidence*: Ch. 6 (Team) 2) Read Amabile et al.'s *IDEO's Culture of Helping* 3) Discuss different views of working in teams
6		Working in teams: Exercises	1) Explain and do "Creativity Challenge"#5 in *Creative Confidence* pages 225-227 2) Explain and do "Creativity Challenge" #6 in *Creative Confidence* pages 228-230

			3) Explain and do "Creativity Challenge" #7 in *Creative Confidence* pages 231-232
7		Taking action	1) Read *Creative Confidence*: Ch. 4 (Leap) 2) Focus class discussion on "do something mindset" and what prototyping can be 3) In pairs, practice developing "storyboards" (see pages 138-139)
8		Intro to design thinking	1) Before class, review Stanford University's Virtual Crash Course in Design Thinking: https://dschool.stanford.edu/resources-collections/a-virtual-crash-course-in-design-thinking 2) In class, watch the video and do the design exercise (redefining the gift giving experience) (https://dschool.stanford.edu/resources/virtual-crash-course-video)
9		Design thinking exercise, part A	See instructions at end of syllabus
10		Design thinking exercise, part B	See instructions at end of syllabus
The instructor will have assessed students' engagement in the creativity processes to date, and provide feedback to students (Course engagement: 1st portion of course).			
11		Getting ready	1) Read *Design Thinking for the Greater Good*: Ch. 1 and Ch. 2 2) Discuss areas of similarity and difference in concepts already covered 3) Put students in design teams (of 2 or 3); these are the teams they will stay in for the rest of the semester and with whom they will work on the "big design challenge" 4) Students meet as a team and discuss with each other several problems that might be good candidates for them to a design solution (put ideas on sticky notes and stick to white board)
12		Design case study 1	1) Read *Design Thinking for the Greater Good*: Ch. 3 (US Health and Human Services) 2) Discuss key issues and process in the case 3) Students work in teams and settle on one problem/idea they will work on the rest of the semester
13		Empathize ***1st team paper due***	***1) Due: Teams' 2-page paper summarizing how they arrived at their idea*** 2) Student teams take their idea out for a spin on campus and in the city, talk to as many

			people as possible about their idea, secure and write down feedback
14		Design case study 2	1) Read *Design Thinking for the Greater Good*: Ch. 4 (Kingwood Trust) 2) Discuss key issues and processes in the case 3) Student teams work on their design projects
15		Problem identification	Student teams work on their design projects, focus on identifying the problem based on what they learned from the empathy stage
16		Design case study 3	1) Read *Design Thinking for the Greater Good*: Ch. 5 (Monash Medical Center) 2) Discuss key issues and processes in the case 3) Student teams work on their design projects
17		Ideating	Student teams work on their design projects; focus on ideating and creating as many ideas to solve problems as possible
18		Design case study 4	1) Read *Design Thinking for the Greater Good*: Ch. 6 (Fostering Community Conversations in Iveragh, Ireland) 2) Discuss key issues and processes in the case 3) Student teams work on their design projects
19		Prototyping A	Student teams work on their design projects; focus on building a prototype
20		Prototyping B	Student teams work on their design project; focus on building a prototype
21		Feedback ***1st prototype due***	***1) Due: First prototype*** 2) Student teams present prototypes to class; record feedback
22		Design case study 5	1) Read *Design Thinking for the Greater Good*: Ch. 5 (US FDA) 2) Discuss key issues and processes in case 3) Student teams revise their prototypes based on feedback
23		Prototyping C	Student teams revise their prototypes
24		Testing	Student teams take their prototypes back out to the community to "test" them and collect more feedback
25		Design case study 6	1) Read *Design Thinking for the Greater Good*: Ch. 8 (United Cerebral Palsy) 2) Discuss key issues and processes in case 3) Student teams work on their design projects
26		Spreading design thinking	1) Read Design Thinking for the Greater Good: Part III (only pages 245-274) 2) Discuss key ideas and processes 3) Student teams work on their design projects
The instructor will have assessed students' engagement in the creativity processes to date, and provide feedback to students (Course engagement: 2nd portion of course).			

27		Designing	Student teams work on their design projects
28		Designing	Student teams work on their design projects
29		**Final presentations**	***Teams 1-4 present their design projects to a group of "stakeholders" (students, instructor, and guests)***
30		**Final presentations** ***Teams' final papers***	***1) Teams 5-8 present their design projects to a group of "stakeholders" (students, instructor, and guests)*** ***2) Due: teams' final papers***

REQUIRED READINGS

Amabile, T., Fisher, C. M., & Pillemer, J. (2014). IDEO's Culture of Helping. *Harvard business review*, *92*(1-2), 54-61.

Kelley, D., & Kelley, T. (2013). *Creative confidence: Unleashing the creative potential within us all*. Crown Pub.

Liedtka, J., Azer, D., & Salzman, R. (2017). *Design Thinking for the Greater Good: Innovation in the Social Sector*. Columbia University Press.

EVALUATION METHODS

An essential element of this course is rediscovering creativity and engaging in creative processes (such as design thinking). However, traditional grading schemes have had the unintentional consequence of suppressing students' creativity. Yet we cannot ignore that the vast majority of educational institutions, including this one and the one from which you came, must "grade" students' performance. (Did you know that first semester, first-year students at MIT only receive a "Pass" or "No Pass" in their courses, and when a student gets a "No pass" it is not even recorded on their official transcripts? This is to encourage students to be creative and take risks.)

Therefore, most of the grading in this course will be based on the students' *engagement in the processes of creativity and design thinking*. Some may say this is "subjective" but it is no more "subjective" than the act of grading an essay or even crafting an exam.

Combining the need to encourage creativity with the need to assign grades, the course instructor will provide specific requirements and grading standards for the course. Your final grade in the course will be comprised of the following course requirements:

A summary of the course deliverables is listed below:

Action	Key dates
1. Individual reflection paper on fear of failure	By 3rd meeting
2. Course engagement: 1st portion of course	Between 10th and 11th meetings
3. First team paper: 2-page paper on idea	By 13th meeting
4. First prototype	By 21st meeting

5. Course engagement: 2nd portion of course	Between 26th and 27th meetings
6. Team presentation	Last two days of class
7. Team paper	Last day of class
8. Course engagement: final of course	At the end of the semester

1. Individual reflection paper on fear of failure (5% of course grade):
By the 3rd meeting, students will submit a 3-5 page paper (double-spaced) reflecting on their own fear of failure. From where did it come? How old were you when you first realized you were afraid to fail? Describe (if any) some things in your life that helped you overcome such fears.

Grading rubric
- Thoughtfulness: 65%
- Quality of writing: 35%

2. Course engagement: 1st portion of course (15% of course grade):
After the 10th but before the 11th meeting the instructor will assess students' engagement in creative *processes* (not how creative they are, or their performance, but how seriously they have engaged in the exercises and discussions).

Grading rubric
- Commitment to the readings and class discussions on the readings: 35%
- Level of engagement in the class exercises from *Creative Confidence*: 35%
- Engagement in the design thinking exercise: 30%

3. First team paper (5% of course grade):
This is only a 2-page paper submitted by each team that summarizes how the team settled on their idea. The primary purpose of this paper is to keep the teams on track.

Grading rubric
- Thoughtfulness: 35%
- Engagement with design-thinking process: 35%
- Quality of writing: 30%

4. First prototype due (10% of course grade):
By the 21st meeting the teams' first prototypes are due. Teams will also present their prototypes to the class. This is an important checkpoint to make sure the student teams are on track.

Grading rubric
- Visual effectiveness of prototype: 50%
- Completeness of prototype (is it "done"?): 25%
- Engagement with the design-thinking process: 25%

5. Course engagement: 2nd portion of course (20% of course grade):
After the 26th but before the 27th meeting, the instructor will assess students' engagement in creative *processes* (not how creative they are, or their performance, but how seriously they have engaged in the classroom discussions and the design project).

Grading rubric
- Commitment to the readings and class discussions: 40%
- Engagement in their team's design project: 60%

6. Team presentation (15%):

Each team will have 12 minutes to present their design project to the entire class on one of two days. Following the presentation there will be 5 minutes for questions/comments.

Grading rubric

- Creativity of total solution: 30%
- Quality of prototype: 30%
- Creativity of the presentation: 15%
- Clarity of presentation: 15%
- Professionalism of presentation: 10%

7. Team paper (15%)

Each team will submit an 8 to 10 page paper (double spaced). This paper will describe the problem and solution. Additionally, it will articulate how the team followed/used design-thinking during each step of the process.

Grading rubric

- Engagement with design thinking process: 25%
- Creativity of total solution: 25%
- Quality of prototype: 25%
- Quality of writing: 25%

8. Course engagement: final portion of course (15% of course grade):

At the end of the semester, the instructor will assess students' engagement in the creative *processes* (not how creative they are, or their performance, but how seriously they have engaged in design-thinking and team project).

Grading rubric

- Engagement in their team's design project: 100%

Timely Submissions

Assignments submitted after the deadline will be accepted at the discretion of the course instructor and generally only in the event of a documented illness or emergency.

ACADEMIC INTEGRITY

Any academic endeavor must be based upon a foundation of honesty and integrity. Students are expected to abide by principles of academic integrity and must be willing to bear individual responsibility for their work while studying abroad. Any academic work (written or otherwise) submitted to fulfill an academic requirement must represent a student's original work. Any act of academic misconduct, such as cheating, fabrication, forgery, plagiarism, or facilitating academic dishonesty, will subject a student to disciplinary action.

IFSA takes academic integrity very seriously. Students must not accept outside assistance without permission from the instructor. Additionally, students must document all sources according to the instructions of the professor. Should your instructor suspect you of plagiarism, cheating, or other forms of academic dishonesty, you may receive a failing grade for the course and disciplinary action may result. The incident will be reported to the IFSA resident director as well as your home institution.

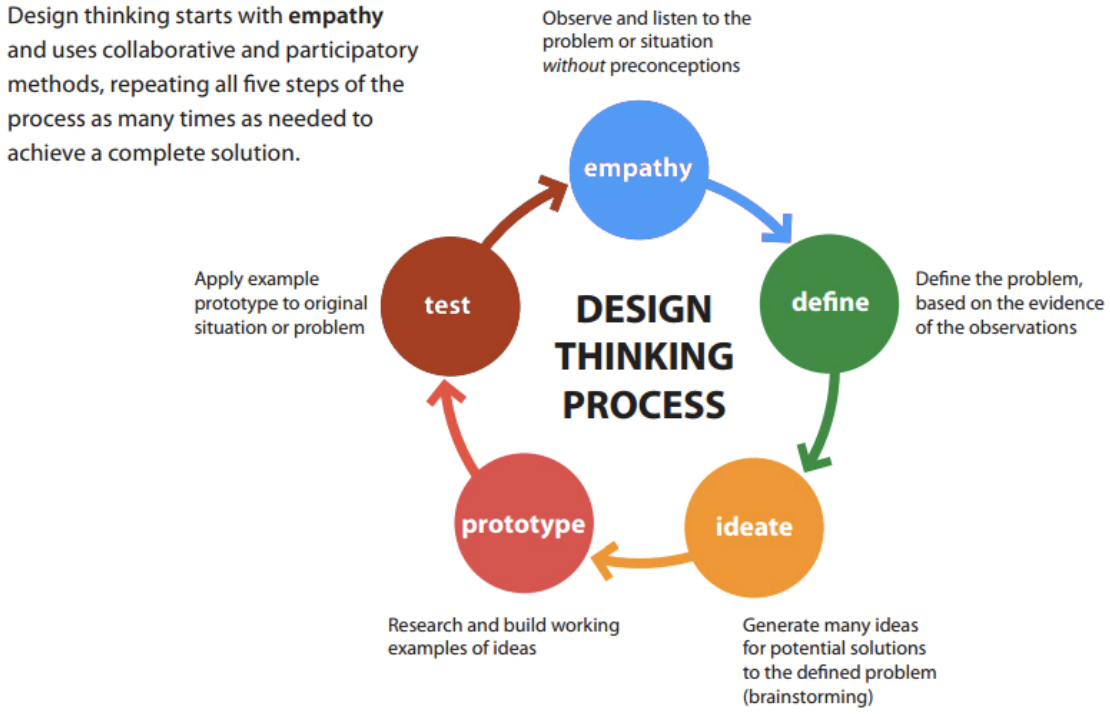
DESIGN THINKING EXERCISE: Part A

Learning Objective: Engage all of the participants in a *mini design challenge*. People will be asked to think about and design a space that promotes creativity.

Materials needed:

- Post-It notes pads (One per participant)
- One whiteboard per team (or design notebook)

Design Thinking Overview (10 min):



Getting organized (2 min):

- Put people into groups of 3
- Find a table and whiteboard
- Get a stack of Post-It notes and a sharpie (or pen).
- Prepare for the mini design challenge instructions.
- Things will be moving fast so please pay attention to my instructions. I will be interrupting you **a lot** !

Empathy (8 min total):

For the purposes of this exercise, we will substitute talking to other students, professors, staff and other stakeholders with talking among your teams.

- ***Your goal is to design a space that promotes creativity***.

In 6 minutes

- *"Describe a space where you feel creative. What makes it so?"*

- *"Can you remember a time when you felt energized working in a space? What was special about it?..."*

In 2 minutes

- Identify interesting similarities and differences in your responses

Problem Identification (8 min.):

- Talk about the campus' many spaces and how well you think they do or don't promote creativity.
- *"What makes them promote creativity?*
- *"What makes them inhibit creativity?"*

Ideating (17 minutes total):

In 13 minutes:

- Generate ideas about what a creative space should or could look like.
- Don't feel constrained by your perceptions of what you think is possible here. If you think that your idea might be too expensive or too complicated, it doesn't matter at this stage of the process. Just get your ideas out.
- When you have an idea, say it out loud to your partners, write it down on the Post-It note, and place it on the whiteboard. It will help make sure everyone is aware of the ideas coming out. And, it is important that the ideas are **visually** represented.
- Think of Post-Its as **"material"** just like actions, movements, sounds in improv are "material"
- Try to explore every idea at least a little even if you have misgivings. Not every idea is good. But every idea can lead to a good one.
- If you are familiar **with improv, this is the "yes and"** model. Someone gives an idea. Someone else says "yes and…" elaborates on the idea. Avoid "yes but." You can pivot to a new line of thinking after a while.

In 4 minutes:

- Look at the ideas you have generated. Cluster the ones you think are related.
- As a team decide on the three most ***interesting*** features that you think should make it in the final design (not necessarily realistic or feasible)
- Then decide on your team's favorite
- Start sketching your space on paper or the whiteboard

Prototyping (30 minutes):

From your sketch, ***build*** your prototype using materials laying around in this room, draw it out "scene by scene" on a whiteboard, or make a storyboard

DESIGN THINKING EXERCISE: Part B

Test (50 min):

- Teams take their prototypes "out for a spin"

- 35 min: They will walk around campus/the city with their prototypes and solicit feedback from students, faculty, staff, or anyone they meet
- 15 min: They will come back to the the classroom and revise their prototypes based on some of the feedback they've received

Communicate (20 min):

After students revise their prototypes, they will present their spaces to the class

Debrief (10 min):

- It was probably a little frustrating for some of you to be so pressed for time. There is a purpose behind that. A goal is to bias people toward ***action***.
- It is a rare opportunity when we have the time fully consider every single possibilities and wanting to do so can lead to paralysis.
- ***The idea here is to try something***. Learn what must be learned and adjust. Iterate.
- Clearly, a few more steps go into design before we call the architects. The first few rounds of this can be a little unfocused but again, this is on purpose. We want to avoid simply running toward the solutions we already have in mind.
- Thanks for going along!