

## **DTX 499 Multidisciplinary Innovation Studio SP 2024**

### **Course Description & Overview**

You've learned about design thinking and human-centered design, and now you have an opportunity to apply your skills to a project with a design partner. Design thinking requires design practice, especially on real-world challenges that truly require cross-disciplinary creative and critical thinking.

During this semester, you will work in cross-disciplinary teams to put design thinking tools to work. You will be assigned to a semester-long project where you will conduct research, synthesize learnings, propose concepts as well as potentially prototype designs, and plan for the implementation and launch of your team's final designs. You will engage in presenting the story of your team's ideas and progress to your instructor, classmates and design challenge partner.

We will match each team with appropriate resources for guidance and inspiration, along with making sure you have access to the audience who will be impacted by your designs, so your team can collaborate with stakeholders throughout the semester.

### **Class Time Contributions & Expectations**

Students who thoughtfully engage with the material in class as well as in their teams typically assimilate, integrate and demonstrate more mastery of the material than those who are passive. Frankly, the class is far more compelling and informative when participants share their relevant knowledge and ask intellectually curious, respectful questions. In recognition of contribution within that spirit, a portion of your grade will be directly related to attendance and participation both in and outside of class.

### **Learning Outcomes & Objectives**

- Acquire and apply knowledge of performing the processes of human-centered design to complete a real-world design challenge.
- Acquire knowledge of multidisciplinary design work, leading to a proof-of-concept, prototype, or relative implementation and/or launch project outcome.

1

- Develop collaboration skills through team work with students from multiple disciplines.
- Refine communication skills through reaching out and interacting with faculty members, partners, stakeholders, and communities.
- Demonstrate knowledge of structured presentation and business storytelling skills
- Participate in authoring and telling the 'business story' of a potential solution (product or service)

## Resources & Required & Suggested Texts (e.g. books, readings, etc.)

- Lawrence, L., Shehab, S., Tissenbaum, M., Rui, T., & Hixon, T. (2021, April). *Human Centered Design Taxonomy: Case study application with novice, multidisciplinary designers*. (pdf will be provided by instructor)
- Pressman, A. (2019). *Design Thinking: A Guide to Creative Problem Solving for Everyone*. Routledge.
- Kurnoff, J., Lazaarus, L., (2021) *Everyday Business Storytelling*. John Wiley & Sons, Inc. ● Lewrick, M., Link, P., & Leifer, L. J. (2020). *The Design Thinking Toolbox: A Guide to Mastering the Most Popular and Valuable Innovation Methods*. John Wiley & Sons, Incorporated.
- Stickdorn, M., Hormess, M., Lawrence, A., Schneider, J. (2018). *This Is Service Design Doing*. O'Reilly Media, Inc.

## Evaluation

### Attendance

Unless otherwise stated, punctual attendance at regular (in-person or virtual) class meetings is expected and required. If you think that you will not be able to attend one or more of our class meetings, please let me know *at least* 24 hours in advance.

Enrollment in this course includes the expectation of **100% attendance**. Because this course is heavily dependent on team collaboration, absence from a single class session will jeopardize the quality of your individual contribution and you should expect, negatively impact your grade.

Absence from 2 or more class sessions within a single semester will result in a failing grade. No excuses for missed classes are necessary or accepted. If the grade you are earning is unacceptable to you, please notify the instructor and drop the course before the last date permitted.

If you are ill, have a family emergency, have technology problems, lose the internet, whatever, you are expected to proactively communicate with your instructor. Please prioritize your well being over this class, if you need to.

### Accountability

All this being said, please thoughtfully consider:

- Not attending class, missing lectures and discussion, and absence from your assigned team working sessions will mean that the work you contribute will be weaker. Staying on schedule as much as possible will set you up to succeed. If for some reason you are not able to meet your commitments, you are expected to notify your instructor *and* your teammates at the earliest opportunity.

- A purpose of this course is to work as a team to develop and communicate innovative ideas.

Lack of timely contribution puts you and/or your whole group at risk; be sure to communicate proactively and regularly with your group members to discuss how to coordinate with and support each other throughout the semester. All students are expected to be communicative, consistent, reliable and dependable. Follow through and follow up. It is my expectation. It is your responsibility.

### **Participation & Activities**

You are welcome to participate in this class in whatever way is most useful to you. In “typical” college classrooms, participation looks like active verbal contributions in large group conversation during class meetings, but we understand that this model doesn’t fit everyone’s personality type, abilities, and cultural norms. If it works better for you to listen attentively and take notes during class, do that. Please, do your best to actively participate in discussions and activities. Should concerns arise about your participation, your instructor will reach out to discuss them with you. In the absence of that, assume you are meeting participation expectations.

You are expected to read assigned material *before* attending class so that you can ask informed questions and elevate the level of classroom discussion. Come prepared.

This class relies heavily on collaborative team work. Every team member is expected to substantially contribute to the design challenge. If a situation arises where a group member does not attend, participate and contribute, speak with your instructor as soon as possible.

It is also likely that teams will need to meet outside of class to address the nature of the design challenge and the tasks required. Please expect to independently coordinate, communicate and collaborate with your teammates. All team members are expected to attend class *and* team meetings. Prepared. You should know with whom you will be meeting, on what topic and where, and have reviewed, in advance, any necessary materials. Preparation is a demonstration of respect that enables you to make substantive contributions.

Finally, professional, respectful conflict of *ideas* is a healthy part of team dynamics. Your willingness to trust your team and engage in constructive, respectful debate should be an indication of your passion for the design challenge and a commitment to the creation of value for your team and the project design partner. The outcome of respectful (idea) debate, should be an agreed upon course of action and team commitment to observable, project progress.

***Don’t:*** Divvy and Assign ***Do:*** Unite and Conquer

### **Digital Presentation Recordings (Video and/or Photo)**

We will be video recording team presentations. The recording(s) are used as an instructional tool to support presentation reflection, evaluation and improvement. Recording by any other

means is not permitted. Videos will be posted for teams to review in a location TBD.

In addition, photos may be taken of teams (by the instructor) during presentations.

If you have privacy concerns or questions about this digital recording policy, please contact the instructor before the end of the first week of class. After that time, your lack of objection will be considered implied consent to be recorded for the aforementioned purposes.

### **Classroom conduct**

Class meetings will include lecture, activities and relevant, respectful, discussion is encouraged and welcomed. These behaviors make the learning environment more enjoyable for all participants.

Cell phones should be turned off or on silent. You are expected to refrain from any strictly unnecessary digital activity like texting, emailing, and web browsing as well as recreational gaming and social media interactions during class.

Refrain from taking photos of other students, your instructor or teaching assistants unless you have first obtained express verbal or written consent. Demonstrate respect for individual privacy.

If you need to utilize the restroom or have a personal crisis during class, discreetly dismiss yourself, as necessary. Your instructor also understands that human, personal and family issues occur.

Section 1-201(b) of the UIUC Student Code states that "It is expected that students enrolled in the university will conduct themselves at all times in accordance with accepted principles of responsible citizenship and with due regard for the rights of others." Additionally, our goal is to run an inclusive, safe, and accommodating classroom and to provide a supportive learning environment for all students. We have a zero-tolerance policy for attacks of a personal nature or statements denigrating another on the basis of race, sex, religion, sexual orientation, age, linguistic background, ability or disability, physical appearance, or national/regional origin. Those who engage in such behaviors will be asked to leave the classroom and counted absent for the day.

We respect each student's right to respond to the name and pronoun of their choice and the right of all people to be treated with dignity and respect. If you see a way to make the class feel more inclusive, safe, and accommodating, we encourage you to share your ideas.

### **Outside of Classroom Conduct & Digital Discretion**

Our design challenge partner has entrusted us with access to and management of a wide

variety of potentially proprietary data, information or intellectual property as a part of Innovation Studio. All students are expected to demonstrate a respectful level of confidentiality, particularly outside of the classroom. Be discrete and mindful of project discussion, where you discuss it and with whom. Additionally, please refrain from authoring posts on social media or other public online forums that relate to the design challenge without first obtaining partner permission in consultation with your instructor.

### **Strategies for Success**

Your success is important to us. Quality and growth demand your effort, self-discipline, and commitment. We suggest the following strategies in not just this class, but in every class you embark on at UIUC:

- Make every effort to actively engage in the course content.
- When doing collaborative work, schedule time for it and communicate. - Be accountable to yourself and your working group. Design challenges are inherently collaborative. Rely on one another, be there for each other, communicate. - Ask questions (in class and/or via email) whenever you need further insight. We welcome your questions, constructive feedback, and suggestions. Developing a respectful dialogue with your instructor(s) should be a top priority for all students. - If you are having trouble understanding or completing course material, please consult us ASAP. We can be reached by email or other indicated channels to schedule an appointment.
- Observe, share, discuss, and debate ideas. Please think of your instructor and fellow students as your colleagues.
- Cultivate an open mind, a desire to learn, a bias toward outcomes and a passion for contributions you are proud of.

### *Grading Guidelines & Considerations*

Grades are assigned to individuals based on instructor assessment of substantive contribution to the team project (components and the whole) as well as individual contribution indicators. Additionally, your instructor will also consider peer evaluation of team member effort, communication and content contribution as well as attendance (in-class and team meetings) and respectful participation.

Attendance and Participation	25%
Concept Development	25%
Midterm Presentations	25%
Final Presentations	25%

### Graduate Students

Graduate students are also required to complete weekly reflections and submit a final case study/paper at the end of the class. Please see graduate student specific *addendum* for these guidelines. Grading criteria for graduate credit is as follows:

Attendance and Participation	15%
Concept Development	20%
Midterm Presentations	20%
Final Presentations	20%
Reflections/Final Case Study/Paper	25%

The grading scale for this class is based on 100 total possible points. And at the end of the semester, your final grade will be assigned using a standard A, B, C, D, F scale, including pluses and minuses.

**A+, A** 93 - 100 **A-** 90 - 92

**B+** 87 - 89

**B** 83 - 86

**B-** 80 - 82

**C+** 77 - 79

### **Qualitative Grading**

**C** 73 - 76 **C-** 70 - 72 **D+** 67 - 69 **D** 63 -

66 **D-** 60 - 62 **F** Below 60

There are four presentation opportunities that represent a significant majority of the gradable work for this course. When subjectively evaluating these presentations and their content, this qualitative guide will be utilized:

A: Demonstrates an outstanding understanding of human centered design concepts, taxonomy goals and tools. Communicates an outstanding, conversational, story utilizing the business storytelling framework. Displays growing subject matter expertise (relative to design challenge) and exhibits enthusiasm for learnings and ideas generated to directly address design challenge.

B: Demonstrates a good understanding of human centered design concepts, taxonomy, goals and tools. Communicates an engaging, conversational, story utilizing the business storytelling framework. Displays some subject matter expertise (relative to design challenge) and exhibits enthusiasm for learnings and ideas generated to address design challenge. C: Demonstrates incomplete understanding of human centered design concepts, taxonomy, goals and tools.

Communicates a story utilizing the business storytelling framework with notable errors/omissions. Minimal subject matter expertise (relative to design challenge). D or F: Demonstrates very poor or absent understanding of human centered design concepts, taxonomy, goals and tools. Unable to communicate a logical story utilizing the business storytelling framework. Evident lack of understanding of subject matter (relative to design challenge) and absence of learnings or quality of ideas generated. Zero credit for presentations not participated in.

### **Land Acknowledgement Statement**

As a land-grant institution, the University of Illinois at Urbana-Champaign has a responsibility to acknowledge the historical context in which it exists. In order to remind ourselves and our community, we will begin this event with the following statement. We are currently on the lands of the Peoria, Kaskaskia, Piankashaw, Wea, Miami, Mascoutin, Odawa, Sauk, Mesquaki, Kickapoo, Potawatomi, Ojibwe, and Chickasaw Nations. It is necessary for us to acknowledge these Native Nations and for us to work with them as we move forward as an institution. Over the next 150 years, we will be a vibrant community inclusive of all our differences, with Native peoples at the core of our efforts.

### **Academic Integrity**

The University of Illinois at Urbana-Champaign Student Code should also be considered as a part of this syllabus. Students should pay particular attention to Article 1, Part 4: Academic Integrity. Read the Code at the following URL: <http://studentcode.illinois.edu/>.

Academic dishonesty may result in a failing grade. Every student is expected to review and abide by the Academic Integrity Policy: <https://studentcode.illinois.edu/article1/part4/1-401/>. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask the instructor(s) if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

### **Disability Statement**

Every human being learns, thinks, works, writes, and moves through the world differently. Consequently, I am committed to making this course flexible and accommodating to account for both difference and disability in this classroom, including in instances of physical disability, mental illness, and/or learning disability.

As part of this commitment, I try to present all course materials in multiple modes whenever possible, giving you the opportunity to participate and engage with different materials as you see fit. (And, really, this is one of the things this course is all about!) However, if any class materials, practices, or policies are in any way keeping you from being successful, please let me know by email or in person. I am more than happy to work with you!

Additionally, if you have a disability, you are strongly encouraged you work with UIUC's Division of Disability Resources and Educational Services (DRES) to document your needs and request accommodations. They are an invaluable resource, and they can help us both better understand commonly helpful types of accommodations. You can contact DRES at 1207 S. Oak St., Champaign, (217) 333-1970, or via email at [disability@illinois.edu](mailto:disability@illinois.edu).

### **Family Educational Rights and Privacy Acts (FERPA)**

Any student who has suppressed their directory information pursuant to Family Educational Rights and Privacy Act (FERPA) should self-identify to the instructor to ensure protection of the privacy of their attendance in this course. See [https://registrar.illinois.edu/academic\\_records/ferpa](https://registrar.illinois.edu/academic_records/ferpa) for more information on FERPA.

### **Mandated Reporter Status and Sexual Assault Resources**

Please know that, while I care greatly for my students and am happy to lend an ear in support when asked, under Title IX, I (along with your other teachers) am designated as a mandated reporter. This means I am required to disclose reports of sexual misconduct to the University or law enforcement. If you are a victim of sexual violence and are ready to speak to an advisor but unsure of whether you want to file a report, you do have access to confidential advisors and other confidential resources through the university and community. You can find information about those and other related resources at <http://www.wecare.illinois.edu/resources/students/>.



**Week-by-Week Course Schedule – *subject to change***

Date	Week No.	Description	Working Time	Reading assignments	Other Assignments
Jan 16	1	Introductions - instructor, assistants, and classmates. Course Syllabus, Overview of topic, Expectations & Approach, Icebreaker exercise, Meet our design partner & Introduction to Design Challenge		HCD Taxonomy: Case Study	Ice breaker in class Stand Out strengths Reflections & impressions & Questions for Project partner next week
Jan 23	2	Teams assigned, Team organization: Scheduling tool, Team expectations for collaboration HCD Understand: Explore, Observe, Empathize Reprise Design Challenge	Y	Chapter 1 &2: Design Thinking book by Pressman	Conduct secondary research (read). Primary research: Q& A with partner. Complete and turn in Team based documents. Build a Stakeholder List
Jan 30	3	HCD Synthesize: Debrief, Organize, Define, Interpret	Y	Chapter 3: Design Thinking book by Pressman	Personna - What problem are you trying to solve and for whom? Stakeholder mapping, journey maps, JTBD
Feb 6	4	Presentation basics. Business Storytelling overview Introduction of Peer Evaluation form	Y	Everyday Business Storytelling - communication framework	Presentation Perspectives – begin building framework of deck
Feb 13	5	Ideate: Brainstorm, Propose	Y		How might we... Falling leaves
Feb 20	6		Y		
Feb 27	7	Rehersal: Mid-Term Presentation Class share-out, peer thoughts, and reactions	Y		Complete Peer evaluations, watch video presentations, incorporate feedback

Mar 5	8	Mid-Term Presentation – includes design partner. Design Partner thoughts, and reactions			Turn in PowerPoint, Turn in Peer Eval, Watch video final presentations
Mar 12	9	SPRING BREAK – no class	Y		

9

Mar 19	10	Ideate: Narrow, Plan. Prototyping. Introduction of Value Proposition	Y	This is Service Design Doing book. Value Proposition article & canvas	Turn in Value Proposition canvas draft (one per team)
Mar 26	11	Prototyping, Introduction of Business Model Canvas - planning tool	Y	Business Model Canvas article & canvas	Turn in Business Model canvas draft (one per team)
Apr 2	12	Prototyping & Team project working time	Y		
Apr 9	13	Prototyping & Team project working time	Y		
Apr 16	14	Implement: Develop, Evolve, Sustain Prototyping & Team project working time	Y		
Apr 23	15	Rehearsal: Final Presentation. Class share-out, peer thoughts, and reactions	Y		Complete Peer evaluations, watch video presentations, incorporate feedback
Apr 30	16	Final Presentation - include design partner Design Partner thoughts and reactions			Turn in PowerPoint Turn in Peer Eval Grad students: Turn in Final paper
May 2		UIUC Reading Day	N/A		

FINAL S	FINALS	No Class	N/A		
------------	--------	----------	-----	--	--

### **Closing request from your instructor**

I am confident you will pour over this document with a detailed eye and rapt attention. Ergo, I have a humble request. Should you encounter typos, grammatical atrocities, obvious errors or omissions, please bring them to my personal attention at the end of a class session. You may receive a small token of my appreciation of your keen eye and attention to detail. =0)