Shaping the Corporate Future Through Systems and Design Thinking

July-August 2017

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Office Hours: By appointment. I will also be available via email or telephone for any consultation

Required Course Text: None

Reference Texts: (For reference only)

- Ackoff, Russell, L. (2006). *Idealized Design: Creating an Organization's Future*. Upper Saddle River, NJ: Wharton Publishing.
- Suarez, J. G. (2004). *Leader of One: Shaping Your Future through Imagination and Design.* Charleston, SC: Amazon, CreateSpace
  http://www.amazon.com/dp/1494401363
- Kelley, T. & Kelley, D. (2013). *Creative Confidence: Unleashing the creative potential within us all.* New York: Random House.

NOTE: Additional readings may be announced and posted in Canvas, and may be provided in class.

Course Description: Adaptive and enduring organizational transformation requires an understanding and a general view of the organization as a system. Failure to do so leads at best to isolated pockets of success within an organization and to the sub-optimization of functions, which has proven to be insufficient to pursue world-class competitiveness. The approach in this course is aimed at enhancing the overall understanding and application of systems thinking and design thinking theory and frameworks to positively influence the future. This course will highlight the importance of leveraging *design* as the vehicle through which strategic choice is manifested. This course will offer real life stories, applications, examples, and lessons extracted from many years of consulting, research, implementation, and teaching in corporations and government agencies. The course format is team-based, highly interactive, experiential and relatable to practitioners. The course is aimed developing design thinkers and helping them explore business possibilities with confidence, exploit new opportunities with resolve, and make courageous choices that will help them shape the future.

Course Outcomes - Upon completion of this course, student teams and individual participants are expected to:

(1) Retain the principles and the terminology used in the applications of systems thinking strategies and methods. Participants will know the parlance, be able to use the tools, and to have an understanding of how it all fits to create an integrated idealized design.

(2) Immerse in scouting the future. Success factors, such as the ingenuity, adaptability, and flexibility to chart your way through uncertainty, dealing with complex problems, and mastering the challenges of value creation, management of interactions and planning for the future cannot be taught in the abstract. Dynamic course activities along with the course project will serve as means and context for building your capacity to sense, respond, anticipate and lead the future.

(3) Apply the Contemplation-Desire-Design-Creation cycle to effectively migrate from concept to development

(4) Challenge assumptions and uncover new pathways to the future. Understand the process of "scouting the future" and develop, score and interpret the results of the application of "concentric circles thinking" and anticipatory decision-making frameworks.

(6) Embrace "learning-by-prototyping" and appreciate the role of rapid iterations, failure, and adaptability to overcome the obstructions in the way of new value creation.

(7) Leverage the power of empathy and story-telling methods to prompt meaningful dialogue and anticipate concrete needs, problems, or conditions.

(8) Engage in dynamic problem solving and "problem-dissolving" and master the framework *Observe-Engage-Immerse* to inspire creative design.

Course Expectations -

- Immerse yourself in the reflection activities, take each activity seriously and appreciate the applicability and potential of each key earning point in your career and life as a whole
- Contribute to the in-class discussion with your observations and insights
- Commit to team processes and activities
- Commit to be punctual, focused and prepared for each class

Guiding themes - Upon completion of the course, participants should be able to recognize:

- Why it is imperative to proactively activate and influence the future and learn how to go about it
- The typology of planning and the role of interactive planning in creating the future
- How to initiate the process of idealization and how to re-create the next iteration of the "system" from a clean slate
- How can we listen and learn from the past without letting it frame our future
- How to leverage "thoughtless acts" and exploit opportunities in our environment
- How to challenge assumptions to uncover new ways to reframe old problems
- How to enhance our decisions by uncovering and assessing the ripple effect of positive and negative implications
- The impact of the C-D-D-C cycle in shaping the future

Course Evaluation

Your grade in this course is based on four components totaling **500**. The larger share goes to the final course **team project** that is the result of the integration of systems thinking methodologies, a strategic exploration tool, and the application of *Idealized Design*. This is an integrative project that requires team effort (200 pts). It is essential that you work effectively as a team to bring your project to a successful completion. The second component is measured by the output of a team deliverable,

uncovering unintended consequences (100 pts), which will be initiated in class, and submitted as an appendix to the final team paper. The third component assesses your individual mastery of two design frameworks, as measured by user and faculty feedback. (170 pts). The first is *designing an experience* 85 points and the second, *designing a product* 85 points. Both activities will be facilitated and completed in class and your output will be collected and graded. The last component of the grading is general class participation (30 pts). Following a description of each grade component.

Final Team Project*:* 200 points (Final Paper is 190 pts and 10 pts which will be assessed based on the peer evaluation of your contribution to the final team project.)

(1) Your individual grade on the team project will be calculated based on your team grade, adjusted by an evaluation of your team participation by your fellow team members. Peer evaluations will be confidential. You will assess each team member based on the following criteria:

- *Participation in team meetings* - Did the team member participate actively in team meetings and seem prepared?
- *Fair workload* - Did the team member take on his/her share of the overall workload?
- *Quality of work* - Was the quality of the team member's work high, adequate, or inadequate (required re-working by another team member).
- *Team interaction skills* - Did the team member interact effectively with other members of the team? Did the member handle conflicts constructively? Did the member communicate effectively with other team members?

Written Format of Team Project

An example of a format for the paper is given below.

Specifications: 1.5 spacing; Times New Roman Font, 1 inch margins all around, sub headers.

- **Title and Team Members (**Cover page with full names of each team member and a phone number for the team leader)
- **Table of Contents**
- **Nature and context of the Project (**organizational setting, type of product, service, innovative idea, etc.)
- **Issue** – brief review of the aim you were pursuing and which outcomes you focused on attaining
- **Methodology** (integration of systemic thinking, Idealized Design, problem dissolution, concentric circles thinking, interviews, research, surveys, etc.)
- **Background** (1 to 2 pages). Brief review of the evolution of the project idea, what was the inspiration, the need or flash of insight
- **Strengths** (≈ 1 to 2 pages). Overview of what perspective (expertise, skills, knowledge) each team member contributed.
- **Idealized Design** (≈ 2 to 3 pages). (Description of your ideal feature in a cohesive/integrated whole).
- **I-W Pathways** (≈ 2 pages)(Description of meaningful pathways with accompanying bridges and strategies).
- **Challenges** (≈ 2 pages). Current challenges for implementation and application of problem dissolution)
- **Recommendations** (≈ 1 pages). Description of specific strategies and problem dissolution initiatives you have for addressing the challenges or obstructions. Recommendations should link to topics, tools, and methods addressed in class.
- **Team Reflections and Lessons Learned** (≈ 2 pages). *This section should include lessons learned from the Idealized Design experience and from the execution of the team project (i.e., what you have learned in terms of designing, developing, and pursuing your team aim). Your write-up for this part should be a reflection based upon a team discussion of these issues. Everyone should be involved in writing this part.*

- **References**. You should use footnotes to cite all of the references you have used throughout the paper. In addition, you may (if desired) provide a section entitled "Additional Readings" at the end of the paper to indicate other relevant reading materials.
- **Appendices.** Appendices always add to the depth of a paper. Provide samples of any designs created and place in the appendix if you have them.

Uncovering unintended Consequences: 100 points
2. This in-class activity is designed to help teams uncover the unintended and typically unanticipated implications of their actions or strategic choices. Executives will be evaluated based on the quality of the implications, how well they integrate the rules for good implications as well as the guidelines for scoring, interpreting, and briefing this strategic exploration tool. The output of this activity will be added to an appendix in the final paper.

Design Activities: 170 points
3. Designing an experience and designing a product: **Interviewing for empathy activity (85) and building creative confidence (85):** These assignments are designed to help you understand a person's thoughts, emotions, and motivations, so that you can bring that perspective into your design considerations. By better understanding the choices, behaviors, preferences, desires, aspirations, etc., you can "design" to address those needs. These assignments will be initiated and completed in class. Students will be evaluated based on the quality of the questions and their translations of the questions into a design prototype.

The following general criteria will be used in assessing the final projects and class presentations:
- *Clarity and Organization* - Is the content is easy to understand and the logic easy to follow? Were the Systems and design tools and methods applied appropriately?
- *Visual display of information* - Have visual aids been used effectively to support the presentation content?
- *Creativity* – Is the project and the presentation creative, original, relevant, insightful, and connected to an overarching aim.
- *Oral presentation* – Do the behaviors of the presenters generate a strong interest and enthusiasm, passion, commitment about the topic? Is the narrative logical?

General Class Participation Scale: 30 points

- **30-25 points:** Student is fully engaged, proactively volunteering for class activities, answers questions, makes comments, or asks questions that demonstrate he or she has prepared thoroughly or is genuinely interested. Student is fully immersed in class activities and completing activities on time. Student proactively posts or brings to class information supporting class discussion such as video links, articles, book references, consistently synthesizes the "nuggets" of learning at the end of class. Student volunteers to make mini-presentations in class and is always s prepared when randomly selected to debrief and article or video in class. Student listens respectfully to other students' contributions and builds off of their ideas. Student stays on topic and holds off-topic comments and thoughts for another time. Student comes prepared for class with materials available either on paper or digitally. Student does not demonstrate any disengagement behaviors (surfing the web, Facebook, texting, or sleeping) during the case discussion. Please note, that just showing up is not enough to receive a high participation grade at the end of the semester. Also, there are in-class activities that will be collected and count as participation for that day. A sign-in sheet will be collected on random days.

- **24-19 points:** Student consistently participates in discussion, answers questions, asks questions, or makes comments that demonstrate he or she has read the material or watched the videos. Student may go off-topic occasionally in comments or questions.

Student listens respectfully to other students' contributions and builds off of their ideas. Student comes prepared for class with materials available either on paper or digitally. Student does not demonstrate any disengagement behaviors (disinterest in the subject, completing other assignments, surfing the web, Facebook, texting, or sleeping) during the case discussion but routinely is arriving late or leaving early thus adversely impacting class activities. Student may leave the classroom during activities to address personal matters.

- **18-13 points:** Student participates in discussion once or twice, but does not fully engage with the discussion/group activities and/or student continually goes off topic with his/her questions and comments. Student listens respectfully to other students' contributions and builds off of their ideas. Student comes prepared for class with materials available either on paper or digitally. Student demonstrates sporadic disengagement behaviors (surfing the web, working on homework for another class, departing early, arriving late, texting, or sleeping) during the class discussion.

- **12-7 points:** Student participates in discussion at least once, but does not fully engage with the discussion and/or any comments made are off-topic. Student listens respectfully to other students' contributions. Student comes prepared for class with materials available either on paper or digitally. Student demonstrates routine disengagement behaviors (surfing the web, Facebook, texting, or sleeping) during the case discussion and has missed important class activities.

- **6-1 point:** Student does not participate in discussion and does not show evidence of having read or watched the material assigned. Student inconsistently listens respectfully to other students' contributions. Student comes sporadically prepared for class with materials available either on paper or digitally. Student demonstrates chronic disengagement behaviors (surfing the web, Facebook, texting, or sleeping) during the case discussion and has a tendency to miss important team activities. Student does not send the Professor a courtesy communication indicating he or she is not attending a portion of class for unexpected reasons and does not display any interest in catching up with the material covered during the absence, including reaching out to their team.

Course Grades:
Your individual and group project and participation will be combined according to the point values shown above, and final course grades computed based on the scale, shown below. *There will be no rounding.*

Points	Grade
490-**500**	A+
471-489	A
452-470	A-
433-451	B+
414-432	B
395-413	B-
376-394	C+
357-375	C
338-356	C-

320-337	D+
301-319	D
290-300	D-
0-289	F

General Rules of Engagement

The class format relies heavily on activities, reflection, discussion and participation by students. Thus, active engagement is critical for learning as an individual and as a group. For success in the course, you are expected to take a high level of responsibility for your own learning and that of others. In order to achieve the learning goals, please come prepared to participate in class discussions, exercises, and individual and team activities. You are responsible for:

1. On-time completion of all deliverables
2. Fostering a climate of respect, collaboration, and full engagement
3. Please note that the dynamic and experiential nature of the course cannot be replicated if you cannot attend a portion of it. Attendance is critical.

Classroom Guidelines

In an effort to create a classroom environment that remains conducive to learning please abide to the following:
1. Avoid side communications, texting and email
2. Turn phones to vibrate mode
3. Keep your attention on the lecture, team exercises, and discussion at all times
4. Adhere to UMD's code of ethics
5. Video or audio recording of the session is not permitted

Academic Integrity

Academic integrity means that you are expected to approach all assignments within the spirit of the class rules and UMD's ethical standards.

 OPEN NOTES Allowed: Final project

 USE BOOK Allowed: Individual reflection and for final project

 SEARCH ONLINE Allowed: Individual reflection and final project

 ASK FRIENDS **NOT** allowed for peer review

 WORK IN GROUPS Allowed: Final team project, I-W, Team final

Special Needs

Any student with special needs (e.g., documented learning or physical disabilities that may impact performance) should discuss this with me, as soon as possible.

Course Contents and Timeline: Due to the unique culture and personality of each class, timing for the course may shift due to frequency of discussion. Keep in mind that the interactive and compressed nature of the course may cause a slight deviation from this flow. Adjustments may be necessary as the session progresses.

Day	Date	Topic	Activities
F	7/29	- Course overview and introduction - Rules of engagement - Expectations	Read course syllabus carefully and come prepared to address any issues.
		- Imperative of creating the future - Planning about the future - The CDDC Cycle - Identifying the problem - Types of Content of the Mind - Design thinking as the systems methodology—science, art and design - Operating Principles of design thinking	*Class activities:* 1. Fluency and Flexibility 2. Yes but…Yes and…
S	7/30	- Physical-Logical-Emotional system - The Typology of planning - Interactive Idealized design - Understanding assumptions - Assessing implications	*Class activities:* 1. I like, I wish, What if 2. The Mega Wheel 3. Scoring, Interpreting, and developing strategic bridges and barriers *Videos:* 1. Mobility 2088 2. The AT&T story 3. 3. Land Airbus Simulation
		- Team Formation - Synthesis	*Class activity:* 1. Reflect and share

Day	Date	Topic	Activities
S	8/5	- Course overview and introduction - Expectations	
		- The relevancy of design and its universality in business - What is good design? - Operating Principles of design thinking - From fear to trust: Daring to lead the future - Changing without a crisis: Empathize with your end user	*Class activities:* 1. The biggest fan 2. Designing the ideal cart 3. Thoughtless acts 4. Interviewing for empathy 5. What might we create for…

		• A system for holistic design	
S		• Tackling wicked problems through problem dissolution • Asking questions to evoke a story, not just an answer, and translate the story into a design opportunity • Storytelling—Real life case • Embracing creative confidence • Creating a culture for radical collaboration	*Class activities:* 　1.　Designing for your partner *Videos:* 　1.　ABC Nightline The Deep Dive 　2.　Do not cross--cross 　3.　Why-How-What 　4.　Creative confidence
		• Course synthesis	*Class activity:* 　1.　Reflect and share 　2.　Course evaluation