Design Inquiry and Research

General Information

<table>
<thead>
<tr>
<th>MBA Program</th>
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<tbody>
<tr>
<td><strong>Course number</strong></td>
<td>MIS 5303</td>
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<tr>
<td><strong>Credit hours</strong></td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Course dates and times</strong></td>
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<tr>
<td>Class meets Fridays 9:00-3:00 on the following dates: 1/30, 2/6, 2/13</td>
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<tr>
<td>Required Design Challenge participation 2/20 4:00-6:30 and 2/25 9:30-5:00</td>
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<tr>
<td><strong>Course location</strong></td>
<td>Speakman 113</td>
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Instructor Information

<table>
<thead>
<tr>
<th>Instructor</th>
<th>James Moustafellos</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phone</strong></td>
<td>204-4386 (office)</td>
</tr>
<tr>
<td><strong>Email</strong></td>
<td><a href="mailto:jamescm@temple.edu">jamescm@temple.edu</a></td>
</tr>
<tr>
<td><strong>Office Location</strong></td>
<td>209f Speakman</td>
</tr>
<tr>
<td><strong>Office Hours</strong></td>
<td>Tuesday and Thursday 11:00-1:00 or by appointment</td>
</tr>
</tbody>
</table>

The preferred method of contact is email

Competency Prerequisites/Co-requisites

<table>
<thead>
<tr>
<th>Prerequisite Competencies</th>
<th>None</th>
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<tbody>
<tr>
<td>Co-requisite Competencies</td>
<td>None</td>
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Course Overview

This course forms a foundation of approaches, skills and working methods to be applied throughout the MBA experience. It is less about a distinct subject and more about how to effectively meet the business challenges of a rapidly changing, technologically driven global world.

This course introduces the concept of Business Design, a holistic approach to management that combines the analytical strengths of traditional business education with the qualitative research, idea generation and the ability to synthesize information from design education. It is a balance of quantitative and qualitative thinking.

Design Inquiry is a question-based framework to structure this problem solving process to create innovative solutions that are user-centered, socially, culturally and functionally meaningful and economically sustainable.

The following are five behavioral indicators of Design Inquiry. They are the course level objectives and outcomes:
1. **Sensory approach to problem solving:** Demonstrate an ability to approach complex problem solving experientially by mobilizing all sensory devices of the problem solver.
   - Think through visual means (diagram, map, draw and produce visual images)
   - Rely upon tacit knowing
   - Apply an aesthetic and holistic assessment of alternatives
2. **Open-ended approach to problem solving:** Demonstrate an ability to approach complex problem solving through exploration without predisposed solutions
   - Engage uncertainty and accept risk
   - Avoid premature closure through iterations
   - Enjoy improvisation
   - Embrace change
   - Discover unexpected outcomes
3. **Empathic approach to problem solving:** Demonstrate an ability to approach complex problem solving through understanding others
   - Focus on the human side
   - Empathize with customers
   - Engage in deep (authentic) listening
   - Consider hidden stakeholders
   - Discover unmet needs
4. **Multi-dimensional approach to problem solving:** Employ multiple perspectives and productively deal with conflicts and paradox
   - Entertain multiple alternatives with different models
   - See the whole
   - Engage in analytic-synthetic loops
   - Reconcile conflicting objectives
5. **Making ideas and solutions physical:** Translate concepts and ideas into life
   - Prototype
   - Role play
   - Use scenarios
   - Construct personas

### Competency Map

<table>
<thead>
<tr>
<th>MBA Learning Goal</th>
<th>Competency</th>
<th>Skill</th>
<th>Competency Measurement or Demonstration</th>
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<tbody>
<tr>
<td>Learning Goal</td>
<td>(Primary) Influential Communication [See course level objective 3]</td>
<td>Active listening</td>
<td>Demonstrated through research interviews and the ability to synthesize stakeholder input and needs into final proposals. Demonstrated in project teamwork and ability to listen and hear ideas and contributions of team members. Measured through peer evaluations.</td>
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<tr>
<td></td>
<td>(Primary) Influential Communication [See course level objective 3]</td>
<td>Written and oral communication</td>
<td>Measured through quality of written narratives of stakeholder interviews and observations</td>
</tr>
<tr>
<td>Learning Goal</td>
<td>(Primary) Influential Communication</td>
<td>Visual communication</td>
<td>Demonstrated through ability to convey research and ideas to team members and classmates</td>
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<tr>
<td>(Primary) Influential Communication</td>
<td>[See course level objectives 1 and 5]</td>
<td>Presentation skills</td>
<td>Demonstrated through team’s ability to construct and convey a logical, complete and compelling story around project proposal</td>
</tr>
<tr>
<td>(Primary) Business Reasoning</td>
<td>[See course level objectives 2 and 4]</td>
<td>Identify Sources of Relevant Information and Data for Problem Scenario</td>
<td>Demonstrated through the ability to compile relevant information from multiple, varied and unexpected sources.</td>
</tr>
<tr>
<td>(Primary) Business Reasoning</td>
<td>[See course level objectives 2 and 1]</td>
<td>Visualization: Communicating message through imagery</td>
<td>Demonstrated through the use of visual means throughout the design process and the inclusion of effective visual representations in the final proposal</td>
</tr>
<tr>
<td>(Primary) Business Reasoning</td>
<td>[See course level objectives 2 and 4]</td>
<td>Draw from Conceptual and Real-World Events to Propose Solutions/Changes to Business Strategies</td>
<td>Demonstrated through how effectively the insights derived from research are translated into innovative proposals</td>
</tr>
<tr>
<td>(Primary) Business Reasoning</td>
<td>[See course level objectives 1, 3 and 4]</td>
<td>Articulate Holistic, Multi-Perspective View of Business</td>
<td>Demonstrated through the number of stakeholders considered (including internal, external and hidden stakeholders), the personas developed, and how well their potentially conflicting needs are resolved in the project proposal</td>
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<tr>
<td>Learning Goal</td>
<td>(Secondary) Leadership</td>
<td>Assuming a leadership role in team settings</td>
<td>Measured through peer evaluations</td>
</tr>
<tr>
<td>(Secondary) Identify and Evaluate Business Opportunities</td>
<td>Opportunity recognition and screening</td>
<td>Demonstrated through the identification of unmet stakeholder needs how well they are translated into viable proposals</td>
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Teaching Methods

This course uses a studio-based format to emphasize experiential learning through hands-on engagement of ideas and concepts. The course format includes brief lectures and presentations, discussions and active learning workshops. Individual work and teamwork are combined to allow students to engage projects through personal and collaborative explorations.

Qualitative research based upon ethnography complements the more traditional prioritization of quantitative analysis in management education. Ethnographic research is based on fieldwork, observing people in their natural settings and immersing oneself in the research context. Research methods include: observing, interviewing (descriptive, semi-structured and structured), conducting archival or secondary research, and collecting and reading cultural artifacts. An ethnographic approach to research is an open-ended emergent learning process that is holistic, flexible, creative, interpretive, iterative and includes discovery.¹ These skills are essential to achieving the competencies listed above and influence achievement of many other competencies including: Implementation Management, Cross-Cultural Effectiveness, and Ethical Management.

Course Materials

Required

Required readings are listed in the course schedule.

Recommended

The following articles and books are supplementary materials for those who are interested in learning more about this topic:


Martin R and Austen H, The Art of Integrative Thinking, Rotman Management, Fall 1999


Course Schedule
Due to the ambiguous and exploratory nature of UNSTRUCTURED research projects, the following course schedule, readings and assignments may change to respond to student progress and needs as the project evolves. Any changes will be announced in class.

30 January / Class 1: An approach to working, understanding and envisioning

Introduction to Business Design and Design Inquiry

- [course overview]
- Introduction to Business Design/Design Inquiry and their relevance to MBA education
- Team building
- What is Design?
- Foundations of working methods
- Design process
- Iterations
- Analytic-synthetic loops
- Authentic listening
- Thinking through visual means
- Discovering unexpected outcomes
- Collaborative working methods
- Introduction to Ethnographic Research and fieldwork
- Introduction to Interviewing and writing narratives

Readings due:
“The 10 Faces of Innovation” http://www.fastcompany.com/54102/10-faces-innovation

Boland and Collopy, Managing as Designing: Design Matters for Management (PDF on blog)

6 February / Class 2: All you can do to understand a situation and its context and stakeholders

Research Methods + Analysis

- Assembling a personal repository of tools for research and data collection
- Teamwork to share information collected and to develop a framework for assessment.
- Analyzing information from observations and fieldwork and synthesizing them into key insights
- Understanding the power of people and stories
- Developing personas
- Discovering unmet needs
- Developing a strategy and formal research plan for your project: What do you have? What do you need? What is missing?
- Introduction to Experience Mapping and visualizing complex systems

Readings due:
“Informing our Intuition: Design Research for Radical Innovation”

Usability.gov Personas
Assignment due:

**Part 1: You will conduct ethnographic observation research related to your project.**

1. You must take at least 20 different pictures of a situation relevant to your project domain of interest. Photos should present a range of perspectives from general overview images to very specific details and situational context.

2. Take at least 5 minutes worth of video clips.

3. Write a 1 page (full page) summary of your key OBSERVATIONS and INSIGHTS. Be very methodical and rigorous in your analysis. Follow the specific formatting guidelines in the syllabus.

4. Write a 1 page research summary documenting in detail your research PROCESS.

**Part 2: You must interview at least 3 people who represent stakeholders for your project.**

You want to learn as much as you can about them and their personal relationship to the project domain of interest. Write a 1-2 page (full page minimum) personal portrait telling their “story”. Provide details and insights into their personalities, choices, preferences, and personal intellectual and emotion drivers. This is a story – not a Q&A summary.

The interview assignments are opportunities to understand the relationship between PEOPLE and SITUATIONS. Your goal is to understand what people want and need. Successful interview assignments usually involve multiple interviews and several pages of transcribed conversation that are summarized and distilled into a meaningful narrative. If your interview is very brief or cut short – I strongly suggest doing another until you have sufficient material.

13 February / Class 3: *Making sense of information*

**Synthesis and Visualizing Solutions**

- Bringing it all together
- Building on key insights and brainstorming potential solutions
- Visualizing information and systems
- Team members will share visual representations and create a consolidated system representation.
- Class concludes with strategies for documenting and communicating your research and a plan for a project presentation.

Readings due:

“Using Customer Journey Maps to Improve Customer Experience”

“7 Tips on Better Brainstorming”
[https://openideo.com/blog/seven-tips-on-better-brainstorming](https://openideo.com/blog/seven-tips-on-better-brainstorming)

*Brainstorming Doesn’t Work: Try This Technique Instead*

Assignment due:

Individually prepare a visual representation of your project as a system. Use Powerpoint (or other graphic software that enables you to generate a jpeg or pdf file) to create your representation. You may use any graphic tools, animations or effects to communicate your idea – but they must enhance communicating your ideas and you may only use 1 slide. THIS IS A VISUAL REPRESENTATION, NOT A PRESENTATION.

Conduct any additional research to understand you persona’s unmet needs and fill any gaps in the general research identified by the team.

19 February: Client Presentations in MKTG 5301

- Teams present their research to their client.

Assignment due:

Integrated Presentation (PPT) and Report Section (Word) for MKTG 5301 will be submitted to MIS 5303 Google Drive folder for grading.

You will be graded on the quality of your research and insights developed and your ability to translate these into actionable proposals for your client. You will also be graded on your ability to effectively communicate your insights and proposals VISUALLY and verbally in your presentations.

[20-25 February CHALLENGE PROJECT PARTICIPATION]

Students are required to participate in the annual Fox Design Challenge, a civic innovation student competition. GMBA students will be placed on interdisciplinary teams with other undergraduate and graduate students from Temple and the Philadelphia region and a limited number high school students. There will be approximately 2 GMBA students per team.

Kick-off: Friday 2/20 4:00-6:30 Alter Hall MBA Commons

Competition: Wednesday 2/25 9:30-5:00, The Hamilton Garden, Kimmel Center

13 March: Final Deliverable

- We will not formally meet on this day.
- Pairs of students who worked together on a Design Challenge team will submit summaries of their Design Challenge proposals using the guidelines provided.

- Teams will submit peer assessment for each team member in writing with an explanation.
Policies & Procedures

Grading Policy

The final grade for the course will be determined as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Class participation</td>
<td>10%</td>
</tr>
<tr>
<td>Individual research assignments (4)</td>
<td>40%</td>
</tr>
<tr>
<td>- Fieldwork Research+Process</td>
<td>(10%)</td>
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<tr>
<td>- Research Insights</td>
<td>(10%)</td>
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<tr>
<td>- Interviews</td>
<td>(10%)</td>
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<tr>
<td>- System Mapping</td>
<td>(10%)</td>
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<tr>
<td>Team design workshops</td>
<td>10%</td>
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<tr>
<td>Final project presentation</td>
<td>10%</td>
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<tr>
<td>Final project report</td>
<td>10%</td>
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<tr>
<td>Design Challenge Project Summary</td>
<td>20%</td>
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</table>

Individual assignments and the Design Challenge Summary will be given grades of 0-100. Teams will be given grades for the workshop activities, project presentation and project report on the following scale: Pass High (90), Pass (80), Pass Low (70), Fail (60).

At the end of the course, team members will provide peer assessments of the performance of each student on their team and an explanation for the grade given.

Individual grades for group work will be adjusted up to 10 points above or below the team grade to reflect each student’s individual contribution to the team. Adjustments will be based upon the instructor’s evaluation of the work performed. Peer assessments will provide context for this evaluation.

The final course grade uses the letter grades A-F.

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<thead>
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<th>Scale</th>
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<tbody>
<tr>
<td>94 – 100</td>
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<td>90 – 93</td>
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<td>87 – 89</td>
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<td>83 – 86</td>
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<td>80 – 82</td>
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<tr>
<td>77 – 79</td>
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<tr>
<td>Below 60</td>
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</tbody>
</table>

Class participation: The course will be conducted primarily as a discussion and activity-based class. Students are expected to be fully engaged and participate in the discussion and activities and to contribute to the process of constructing knowledge. The class participation grade will reflect the instructor’s judgment of the quality and quantity of a student’s contribution during class sessions.
Criteria for the class participation grade include attendance, punctuality, level of preparation, professionalism, and the ability to answer questions, discuss readings, and contribute to group activities.

- Attendance for the class sessions is mandatory. Given the intense nature of the workshops and the importance of group interaction, it is not possible to replicate the experience or make up the work missed.
- Tardiness disrupts the flow of class activities and often leads to having to repeat announcements or instructions. Entering and leaving the room during the class similarly distracts both students and the instructor and conveys a disregard for the material being discussed.
- You are expected to complete all assignments and study the assigned course readings for a given day before coming to class. Students will be called upon to present research or to discuss issues covered in the assigned readings. You are encouraged to engage in critical thinking and to challenge ideas without showing disrespect for the ideas of others.
- Effective participation has much more to do with the quality than with the quantity of your interaction.

Individual Assignments: These assignments are a documentation of your individual research conducted in preparation for the group projects. The goal of these assignments is to facilitate discussion and group work in the class. **Since these assignments are essential for your group projects, no assignments will be accepted after the start of class on the date due. Late assignments will receive a 0 credit.** Please bring 2 printed copies of your assignments – 1 to turn in and 1 to use with your team. Assignments must follow the format below.

Individual Learning Assignments REQUIRED FORMAT: All writing assignments for the course should conform to the following format requirements: 11-point Times Roman, double-space, and one inch margin all around. Papers should be 1 FULL PAGE minimum and up to 2 pages maximum. This format is to help you understand the required length of your assignments in order to have sufficient content. Papers that violate the format requirement will be penalized.

**Plagiarism Policy**

Plagiarism and academic dishonesty can take many forms. The most obvious is copying from another student’s exam, but the following are also forms of this:

- Copying material directly from the Internet (or another source) without a proper citation crediting the author
- Turning in an assignment from a previous semester as if it were your own
- Having someone else complete your lab assignment and submitting it as if it were your own
- Signing someone else’s name to an attendance sign-in sheet
- Use of assignments completed in one class as any part of a project assigned in another class
- Sharing/copying homework assignments.
- Use of unauthorized notes during an examination
- In cases of cheating, both parties will be held **equally responsible**, i.e. both the student who shares the work and the student who copies the work.
Of course, behavior like this will not be tolerated in this class. Penalties for such actions are given at my discretion, and can range from a failing grade for the individual assignment, to a failing grade for the entire course.

If you use text, figures, and data in reports that was created by others you must identify the source and clearly differentiate your work from the material that you are referencing. If you fail to do so you are plagiarizing. There are many different acceptable formats that you can use to cite the work of others (see some of the resources below). The formats are not as important as the intent. You must clearly show the reader what is your work and what is a reference to somebody else’s work.

Plagiarism is a serious offence and could lead to reduced or failing grades and/or expulsion from the university. The Temple University Student Code of Conduct specifically prohibits plagiarism (see http://www.temple.edu/assistance/udc/coc.htm).

The following excerpt defines plagiarism:

Plagiarism is the unacknowledged use of another person’s labor, ideas, words, or assistance. Normally, all work done for courses — papers, examinations, homework exercises, laboratory reports, oral presentations — is expected to be the individual effort of the student presenting the work. There are many forms of plagiarism: repeating another person’s sentence as your own, adopting a particularly apt phrase as your own, paraphrasing someone else’s argument as your own, or even presenting someone else’s line of thinking in the development of a thesis as though it were your own. All these forms of plagiarism are prohibited both by the traditional principles of academic honesty and by the regulations of Temple University. Our education and our research encourage us to explore and use the ideas of others, and as writers we will frequently want to use the ideas and even the words of others. It is perfectly acceptable to do so; but we must never submit someone else’s work as if it were our own, rather we must give appropriate credit to the originator.


For a more detailed description of plagiarism:

Princeton University Writing Center on Plagiarism:
http://web.princeton.edu/sites/writing/Writing_Center/WCWritingRes.htm

How to successfully quote and reference material:

University of Wisconsin Writers Handbook
http://www.wisc.edu/writing/Handbook/QuotingSources.html

How to cite electronic sources:

Electronic Reference Formats Recommended by the American Psychological Association
http://www.apastyle.org/elecmedia.html

References and Resources

Temple University Student Code of Conduct
http://www.temple.edu/assistance/udc/coc.htm
Disabilities Disclosure Statement

Any student who has a need for accommodation based on the impact of a disability should contact me privately to discuss the specific situation as soon as possible. Contact Disability Resources and Services at 215 204 1280 in 100 Ritter Annex to coordinate reasonable accommodations for students with documented disabilities.

Student and Faculty Rights and Responsibilities

Freedom to teach and learn are inseparable facets of academic freedom. The University has a policy on Student and Faculty and Academic Rights and Responsibilities (Policy #03.70.02) which can be accessed through the following link:
http://policies.temple.edu/getdoc.asp?policy_no=03.70.02.

Student Concerns Guidelines

The Grievance Procedure is available on the Fox Web Site
http://www.fox.temple.edu/cms_academics/dept/advising/students/grievance-procedures/