

MIDDLE EAST TECHNICAL UNIVERSITY
Department of Business Administration

Course Number and Title: BA 4148- Interdisciplinary Problem Solving (3-0)3

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Course Description: Faculty members at universities have become increasingly specialized and separated into different disciplines. Almost all courses are taught according to the viewpoint of the discipline that they are from. As a result, students taking the course become accustomed to thinking within the silo that they are in. Capstone courses generally attempt to connect some of the silos within their discipline but usually stop at the limits of their broad discipline. However, real life problems often require contributions from many disciplines and the integration of knowledge across many silos. This course uses a team-based, experiential, and interdisciplinary learning model to solve real life innovation problems from corporate partners. Using their learnings from different disciplines, team members will be able to identify the major parties involved in the issues, their driving forces and possible directions that this may take. They will be able to cooperate with industry partners and academic mentors. This will help students practice and sharpen important analytical and collaborative skills that they will need to be successful in the business world.

Textbook: There will be no official textbook. However, students will have to make use of a large number of online sources, Newspapers and Magazines from the Business Press. Students are encouraged to use both Turkish and Foreign material.

Suggested readings

- o Alexander Osterwalder, 2013. “A Better Way to Think About Your Business Model” Accessed online at <https://hbr.org/2013/05/a-better-way-to-think-about-yo>
- o Steve Blank, 2013. “Why the Lean Start-Up Changes Everything.” Accessed online at <https://hbr.org/2013/05/why-the-lean-start-up-changes-everything>
- o Andrea Ovens, 2015. “What Is a Business Model?” Accessed online at <https://hbr.org/2015/01/what-is-a-business-model>
- o “Method: Prototype for empathy.” Accessed online at <https://dschool.stanford.edu/wpcontent/themes/dschool/method-cards/prototype-for-empathy.pdf>
- o “Method: Prototype to test.” Accessed online at <https://dschool.stanford.edu/wpcontent/themes/dschool/method-cards/prototype-to-test.pdf>
- o Dam, Rikke Friis and Siang, Teo Yu. 2017. “What Kind of Prototype Should You Create?” Accessed online at <https://www.interaction-design.org/literature/article/what-kind-of-prototype-should-you-create>
- o Brown, Tim. 2008. “Design thinking.” Harvard Business Review, 86 (6), 84-92.
- o Kaygan, Pınar and Aydinoglu, Arsev Umur. 2017. “The role of space in interdisciplinary collaboration in design education.” International Journal of Technology and Design Education, doi:10.1007/s10798-017-9407-2

Course Objectives: This course will allow students to work as a team to find creative solutions using design thinking tools and methods. They will face an interdisciplinary real-life problem and prepare a strategy in order to formulate a solution through cooperating with an industrial partner as an interdisciplinary team. Finally, they will demonstrate abilities to plan, manage and present the results of their projects by presenting it to a diversified audience (managers of private and public sectors...etc.) and preparing a professional report.

Course Outline

Week 0. Introduction (11.03.2022)	Introduction to Design Factory & Course & Mentors
Week 1. Introduction & Networking (18.03.2022)	Distribution of brief & Introduction of the project topics by project partners.
	Speed networking
	Assignment I: Team proposals with project preferences
Week 2. Interdisciplinary Collaboration (25.03.2022)	Business Models & Entrepreneurship
	Interdisciplinary collaboration and teams
	Team-project topic match will be announced.
	Assignment II: Have you ever been to? (Videos of team members departments)
Week 3. Understand & Observe (01.04.2022)	Presentation of team videos
	Field and User Research
	Brainstorming Techniques
	Assignment III: Brainstorming
Week 4. Define & Ideate (08.04.2022)	Presentation of Mind Maps and Field Research
	Persona and scenario building
	Assignment IV: Presentation on Field Research and Persona and scenarios
Week 5. Iteration & Mentor Feedback (15.04.2022)	Presentation of Persona and Scenarios
	Iterations and Mentor Feedback
	Work on your project as a team. Arrange meetings with your mentors and/or project partners.
	Assignment V: Submission of Problem Definitions
Week 6. Presentation I & Mentor Feedback (22.04.2022)	PRESENTATION I: Problem Definitions
	Work on your project as a team. Arrange meetings with your mentors and/or project partners.
	Assignment VI: Project Report I
Week 7. Iteration & Mentor Feedback (29.04.2022)	Work on your project as a team.
	Arrange meetings with your mentors and/or project partners.
Week 8. Iteration & Mentor Feedback (06.05.2022)	Work on your project as a team.
	Arrange meetings with your mentors and/or project partners.
Week 9. Prototype & Test (13.05.2022)	Seminar on Prototyping and user test
	Work on prototype and prototype plan as a team.
	Arrange meetings with your mentors and/or project partners.
Week 10. Iteration & Mentor Feedback (20.05.2022)	Seminar on Intellectual property rights
	Work on your project as a team. Arrange meetings with your mentors and/or project partners.
	Assignment VII: Submission of Presentation II & Poster
Week 11. Presentation II (27.05.2022)	PRESENTATION II: Detailed Design
	Assignment VIII: Project Report II

Week 12. Prototype & Test (03.06.2022)	Work on the prototype as a team.
	Work on your project as a team. Arrange meetings with your mentors and/or project partners.
Week 13. Prototype & Test (10.06.2022)	Team project work on a prototype.
	Meetings with mentors and/or project partners.
Week 14. Rehearsals (17.06.2022)	Rehearsal for the closing ceremony
Week 15. Presentation III & Rehearsals (24.06.2022)	PRESENTATION III: Present the final design with your solution in detail.
	Assignment IX: Final Project Report
Closing Ceremony	To be announced in class

Course Grading: This course will be graded based on assignments, presentations, project reports, attendance & participation, posters, mentor evaluations and peer evaluation of group members.

SUBMISSIONS

GRADING (%)

Assignment I: Team proposals with project preferences	-
Assignment II: Have you ever been to?	-
Assignment III: Brainstorming	5
Assignment IV: Field Research and Persona and Scenarios	5
Presentation I : Problem Definitions	10
Project report I	10
Presentation II	10
Project report II	10
Presentation III	25
Final Project Report	15
Attendance	10