

MIDDLE EAST TECHNICAL UNIVERSITY
Department of Business Administration

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

Catalog 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 Coordinators: Adil Oran, Özlem Özdemir

Project Mentors: Serkan Alkan, Arsev Umur Aydınoglu, Aydan Erkmen, Ebru Aydın Göl, Murat Göl, Y. Eren Kalay, Ozan Keysan, Buğra Koku, Erhan İlhan Konukseven, Afşar Saranlı, Uluç Saranlı, Arzu Gönenç Sorguç, Elif Sürer, Onur Tolga Şehitoğlu, Barış Yazıcı, Yiğit Yazıcıoğlu

Assistants: Müge Kruşa Yemişcioğlu, Anıl Koç

Course outline

Week 1. Introduction (22.10.2021)	Speed networking
	Business Models
Week 2. Interdisciplinary Collaboration (05.11.2021)	Distribution of brief & Introduction of the project topics by project partners Team-project topic match announced.
	Forming the student teams
	Assignment I: Team proposals with project preferences
	Workshop: Interdisciplinary collaboration and teams
	Assignment II: Have you ever been to? (videos of team members departments)
Week 3. Understand & Observe (12.11.2021)	Presentation of the team videos.
	Persona and scenario building.
	User research techniques and application.
	Assignment III: Persona and scenario building
Week 4. Define & Ideate (19.11.2021)	Brainstorming to explore project topics. Assignment IV: Mapping the project topic Iterations and Mentor Feedback
Week 5. Iterations and Mentor Feedback (26.11.2021)	Work on your project as a team. Arrange meetings with your mentors and/or project partners.
	Assignment V: Field and User Research
Week 6. Prototype & Test (03.12.2021)	Prototyping and user test presentations.
	Assignment VI: Conceptual Design Phase
Week 7. Presentation I: Problem Definition (10.12.2021)	Presentation of work carried out so far. Two problem definitions.
	Presentation I board and the Power Point file
Week 8. Iterations and Mentor Feedback (17.12.2021)	Team project work. Meetings with mentors and/or project partners.
Week 9. Iterations and Mentor Feedback (24.12.2021)	Team project work. Meetings with mentors and/or project partners.
Week 10. Presentation II: Detailed Design (31.12.2021)	Present design proposal with complementary solutions in detail.
	Presentation II board and the Power Point file
	Project report I (should be submitted after presentation)
Week 11. Iterations and Mentor Feedback (07.01.2022)	Team project work. Meetings with mentors and/or project partners.
Week 12. Presentation III: Final Design (14.01.2022)	Present one final design proposal with complementary solutions in detail.
	Presentation III board and the Power Point file
	Project report II (should be submitted after presentation)
FINALS. Closing Ceremony	Closing Ceremony, open to project partners and public. Schedule will be announced later

SUBMISSIONS –**GRADING (%)**

Assignment I: Team proposals with project preferences	-
Assignment II: Have you ever been to?	5
Assignment III: Mapping the project topic & Field research plan	-
Presentation I board and the Power Point file	15
Project report I	5
Assignment IV: Prototype plan	-
Presentation II board and the Power Point file	15
Project report II	5
Presentation III board and the Power Point file	40
Project report III	5
Attendance and participation in teamwork	10
Total	100