

**MIDDLE EAST TECHNICAL UNIVERSITY**  
**Department of Business Administration**

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

**Course Coordinators:** Özlem Özdemir

**Design Factory Coordination Team:** Arzu Gönenç Sorguç, Barış Yazıcı, Serkan Alkan, Anıl Koç, Mert Akol, Şevval Çöloğlu

**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 Global resources.

**Suggested readings**

Brenner, W., & Uebernickel, F. (Eds.). (2016). *Design thinking for innovation: Research and practice*. Springer. <https://doi.org/10.1007/978-3-319-26100-3>

**Course Objectives:** This course will allow students to work as a team to find creative solutions using design thinking, system 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 them to a diverse audience (managers of private and public sectors...etc.) and preparing a professional report

**Note:** There is a “student selection process” before the registration of this course and for this semester, the deadline to fill the application form to attend this selection is 23 September, 3:00pm. Selection is based on the project topic and expertise level.

Open to students from all departments. Application Link:

[https://docs.google.com/forms/d/e/1FAIpQLSd-5wloVKB90GciEeNivp7Damcgm7SOHoVOQXKRm2C5r6Tw\\_Q/viewform?usp=sharing&oid=102607850419647047523](https://docs.google.com/forms/d/e/1FAIpQLSd-5wloVKB90GciEeNivp7Damcgm7SOHoVOQXKRm2C5r6Tw_Q/viewform?usp=sharing&oid=102607850419647047523)

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|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Week 1 Introduction &amp; Team Building</b><br><i>(02.10.2026)</i>             | Introduction to Design Factory                                                                                                                |
|                                                                                   | Design Thinking in new Era                                                                                                                    |
|                                                                                   | Interdisciplinary collaboration and teams                                                                                                     |
|                                                                                   | In Class: Speed networking & Games                                                                                                            |
| <b>Week 2 User Research &amp; Data Mining</b><br><i>(09.10.2026)</i>              | To-do: Presentation of “Have you ever been to?”                                                                                               |
|                                                                                   | User Research                                                                                                                                 |
|                                                                                   | Data Mining                                                                                                                                   |
|                                                                                   | In Class: Data Mining Implementation                                                                                                          |
|                                                                                   | <b>Assignment I: Have you ever been to? (Videos of team members departments)</b><br><br><b>Assignment II: User Research &amp; Data Mining</b> |
| <b>Week 3 Brainstorming &amp; Persona</b><br><i>(16.10.2026)</i>                  | Problem Introduction and THY Company Presentation                                                                                             |
|                                                                                   | To-do: Presentation of Field and User Research & Data Mining                                                                                  |
|                                                                                   | In Class: Brainstorming & Mind Map                                                                                                            |
|                                                                                   | Persona and scenarios                                                                                                                         |
|                                                                                   | <b>Assignment III: Submission of Persona &amp; Problem Definition</b>                                                                         |
| <b>Week 4 AI</b><br><i>(23.10.2026)</i>                                           | To-do: Presentation of Persona & Problem Definitions                                                                                          |
|                                                                                   | AI Usage                                                                                                                                      |
|                                                                                   | AI Regulations and Data Protection (TBD)                                                                                                      |
|                                                                                   | In Class: AI Usage workshop                                                                                                                   |
|                                                                                   | <b>Assignment IV: Submission of Initial Ideas</b>                                                                                             |
| <b>Week 5 Initial Presentations</b><br><i>(30.10.2026)</i>                        | To-do: Presentation of Initial Ideas (at least3)                                                                                              |
|                                                                                   | In Class: Staff Feedbacks                                                                                                                     |
|                                                                                   | <b>Assignment V: Project ReportRev1</b>                                                                                                       |
| <b>Week 6 Mentor (Academic &amp; Industrial) Feedbacks</b><br><i>(06.11.2026)</i> | <b>To-do: Submission of Project ReportRev1</b>                                                                                                |
|                                                                                   | In Class: Workshop & 1-1 feedbacks on Presentation                                                                                            |
|                                                                                   | Assignment VI: <b>Submission of Presentation I: Go/No Go</b>                                                                                  |
| <b>Week 7 Go / No-Go Presentations</b><br><i>(13.11.2026)</i>                     | To-do: Presentation of Presentation I: Go/No Go                                                                                               |
|                                                                                   | In Class: Project development with mentors                                                                                                    |
| <b>Week 8 Business Models</b><br><i>(20.11.2026)</i>                              | Seminar on Intellectual property rights                                                                                                       |
|                                                                                   | Business Models                                                                                                                               |

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|                                                                   | In Class: Business Model Canvas                                |
| <b>Week 9 Prototype and User Test</b><br>(27.11.2026)             | Prototyping and User Test                                      |
|                                                                   | Presentation Skills                                            |
|                                                                   | Assignment VII: Presentation of Visual Identity of the Project |
| <b>Week 10 Presentation &amp; Mentor Feedback</b><br>(04.12.2026) | To-do: Presentation of Visual Identity of the Project          |
|                                                                   | In Class: Project development with mentors                     |
| <b>Week 11 Rehearsal 1</b> (11.12.2026)                           | In Class: Rehearsal for Closing Ceremony                       |
| <b>Week 12 Rehearsal 2</b><br>(18.12.2026)                        | In Class: Rehearsal for Closing Ceremony                       |
| <b>Week 13 CEREMONY</b><br>(25.12.2026)                           | <b>Final Presentations</b>                                     |
|                                                                   | <b>Project Final Report</b> (Due: 06.01.2027)                  |
| <b>Week 14</b><br>(01.01.2027)                                    | New Year / Holiday                                             |

**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                   | -           |
| Assignment II                  | -           |
| Assignment III                 | 10          |
| Assignment IV                  | 10          |
| Assignment V ( Report I)       | 10          |
| Assignment VI (Presentation I) | 10          |
| Assignment VII                 | 10          |
| Final Presentation             | 25          |
| Final Project Report           | 15          |
| Attendance                     | 10          |