**ESOGU INDUSTRIAL DESIGN DEPARTMENT**

**COURSE INFORMATION FORM**

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| **Course Name** | **Course Code** |
| DESIGN RESEARCH | 141114008 |

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| **Semester** | **Number of Course Hours per Week** | | **Credit** | **ECTS** |
| **Theory** | **Practice** |
| 4 | 2 | 2 | 3 | 5 |

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| **Course Category (Credit)** | | | | |
| **Basic Sciences** | **Engineering Sciences** | **Design** | **General Education** | **Social** |
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| **Course Language** | **Course Level** | **Course Type** |
| Turkish | Undergraduate | Elective |

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| **Prerequisite(s) if any** | - |
| **Objectives of the Course** | To give information about designer mindset  To gain knowledge and experience about design research and methods.  To teach the reflexive and repetitive nature of the design process.  To give information about research methods that can be used at different stages of the design process. |
| **Short Course Content** | Design Thinking, Design Problem  Design Methods  User Research Methods  Design Process (Double Diamond Model and Implementation Steps) |

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| **Learning Outcomes of the Course** | | **Contributed PO(s)** | **Teaching Methods \*** | **Measuring Methods \*\*** |
| **1** | Being able to define the mindset of designers | 2,3,9 | 1,2, 6,7,10,12,13,14,15 | A,D,E,G |
| **2** | Being able to apply design research and methods | 2,3,9 | 1,2, 6,7,10,12,13,14,15 | A,D,E,G |
| **3** | Being able to establish and apply the relationship between the design process and design research in project processes. | 2,3,9 | 1,2, 6,7,10,12,13,14,15 | A,D,E,G |
| **4** | Being able to develop and apply an understanding of divergent and convergent thinking within the design process. | 2,3,9 | 1,2, 6,7,10,12,13,14,15 | A,D,E,G |
| **5** |  |  |  |  |
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| **Main Textbook** | Lewrick, Link, & Leifer. (2020). The Design Thinking Toolbox: A Guide to Mastering the Most Popular and Valuable Innovation Methods |
| **Supporting References** | M. Krist, N. A. Sorensen, M. Bartosova, C. M. Nielsen, N. M. Molbech, Design Methodology: An Overview  Bella Martin, Bruce Hannington, Universal Methods of Design, Rockport Publishers.  Nigel Cross, Design Thinking: Understanding How Designers Think and Work, Bloomsburry  Bryan Lawson, How Designers Think, Elsevier Architectural Press.  https://www.designkit.org/methods.html |
| **Necessary Course Material** | Personal computer. MİRO and miscellaneous stationery |

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| **Course Schedule** | |
| **1** | Course Introduction, A Brief History of Design Research |
| **2** | Design Thinking, Design Problem |
| **3** | Design Process, Understanding |
| **4** | Implementation and Critique |
| **5** | Observation |
| **6** | Implementation and Critique |
| **7** | Defining point of view |
| **8** | Mid-Term Exam |
| **9** | Implementation and Critique |
| **10** | Idea Generation |
| **11** | Implementation and Critique |
| **12** | Prototyping and testing |
| **13** | Implementation and Critique |
| **14** | Reflection |
| **15** | Implementation and Critique |
| **16,17** | Final Exam |

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| **Calculation of Course Workload** | | | |
| **Activities** | **Number** | **Time (Hour)** | **Total Workload (Hour)** |
| Course Time (number of course hours per week) | 14 | 4 | 56 |
| Classroom Studying Time (review, reinforcing, prestudy,….) |  |  |  |
| Homework | 8 | 5 | 40 |
| Quiz Exam |  |  |  |
| Studying for Quiz Exam |  |  |  |
| Oral exam |  |  |  |
| Studying for Oral Exam |  |  |  |
| Report (Preparation and presentation time included) | 8 | 1 | 8 |
| Project (Preparation and presentation time included) |  |  |  |
| Presentation (Preparation time included) | 8 | 2 | 16 |
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| Mid-Term Exam | 1 | 1 | 1 |
| Studying for Mid-Term Exam | 1 | 5 | 5 |
| Final Exam | 1 | 1 | 1 |
| Studying for Final Exam | 1 | 10 | 10 |
|  | **Total workload** | | **137** |
|  | **Total workload / 30** | | **4,56** |
|  | **Course ECTS Credit** | | **5** |

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| **Evaluation** | |
| **Activity Type** | **%** |
| Mid-term | 25 |
| Homework | 35 |
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| Bir öğe seçin. |  |
| Bir öğe seçin. |  |
| **Final Exam** | 40 |
| **Total** | 100 |

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| **RELATIONSHIP BETWEEN THE COURSE LEARNING OUTCOMES AND THE PROGRAM OUTCOMES (PO)** (5: Very high, 4: High, 3: Middle, 2: Low, 1: Very low) | | |
| **NO** | **PROGRAM OUTCOME** | **Contribution** |
| **1** | Within cultural, historical and artistic contexts the ability to integrate theoretical knowledge about production and consumption mechanisms into the design practice | 1 |
| **2** | The ability to plan the design process, to choose and use appropriate methods and techniques | 5 |
| **3** | The ability to identify design problems and related sub-problems and to produce creative solutions with a critical and dialectical approach | 5 |
| **4** | The ability to design in terms of spatial thinking using design principles and elements | 2 |
| **5** | The ability to make applications in the interaction of aesthetics and function using design elements and means and to evaluate these applications | 2 |
| **6** | The ability to visualize and present using two and three dimensional design tools | 1 |
| **7** | The ability to follow and apply technological developments, current design approaches, sustainable production methods, materials and innovations in the field of informatics in design projects | 2 |
| **8** | The ability to use field knowledge in industrial design projects by considering the needs and interests of the society and target users within the scope of environmental awareness, professional ethics and the laws | 2 |
| **9** | The ability to carry out the design process effectively individually or in a team | 5 |
| **10** | The ability to take an active role in discipline-specific or interdisciplinary studies at the national and international levels; | 1 |
| **11** |  |  |
| **12** |  |  |

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| **LECTUTER(S)** | | | | |
| **Prepared by** | Dr. Öğr. Üyesi Hatice Server KESDİ |  |  |  |
| **Signature(s)** |  |  |  |  |

**Date:**06.06.2024