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| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **Course Name** | | **Code** | **Semester** | **T+U** | **Credit** | **ECTS** | | **Industry 4.0 and Digital Transformation** | |  | 2 | 2+0 | 2 | 3 | | Prerequisite Courses |  | | | | | | | Language of the Course | Turkish | | | | | | | Type of Course | Optional | | | | | | | Course Coordinator |  | | | | | | | Instructor |  | | | | | | | Course Assistants |  | | | | | | | The aim of lesson | Face to face. Lecturing, question-answer, sample solutions, document review. During the preparation stage for the lesson, students are expected to examine the subject of the week from the lesson resources, prepare for the activities planned to be done in the lesson and carry out the activities when necessary. | | | | | | | Course Learning Outcomes | At the end of this course, the student;  1. Learns new technologies such as Internet of Things, Artificial Intelligence, Additive Manufacturing, Machine Learning and Augmented Reality, which are applications of Industry 4.0.  Comprehends the structure of digital transformation ; identifies the factors affecting digital transformation and the obstacles to digital transformation.  3. Learns the relationship of digital transformation with innovation and how it affects corporate performance.  4. Understands and interprets how the future of business life will be shaped. | | | | | | | Course Content | Concept of digital transformation, artificial intelligence, augmented reality, machine learning, internet of things industry 4.0. | | | | | | | **Weeks** | **Topics** | | | | | | | one | Digital Transformation Introduction : Basic Concepts | | | | | | | 2 | Digital Transformation Affecting factors and Digital your transformation in front of Obstacles | | | | | | | 3 | Introduction to Industry 4.0 : Design principles and Conceptual Frame | | | | | | | 4 | Digital Transformation and Industry 4.0 Relationship | | | | | | | 5 | Digital Transformation Methods and to their technologies Login | | | | | | | 6 | of objects Internet ( IoT ): Connected Objects | | | | | | | 7 | Large Data and Cloudy Informatics | | | | | | | 8 | Artificial Intelligence , Machine to learn and Deep Learning | | | | | | | 9 | augmented Reality and Virtual Reality | | | | | | | 10 | 3D Printer Technology : Additive Production | | | | | | | 11th | Clever robots and Business in your life Use of | | | | | | | 12 | Automation and You ask Technologies : Production and Service in their processes Digital Traceability | | | | | | | 13 | Digital Ecosystem , Digital Corruption and Changing Business models | | | | | | | 14 | Sustainable A Digital Transformation culture To create | | | | | | | 15 | General Again | | | | | |  |  | | --- | | **General Competencies** | | from students this your lesson mother their subjects their understanding and fields with in applications their use expected . | | **resources** | | Schwap , K. (2016). *The fourth industrial revolution* , Optimist Publications. | | **Evaluation System** | | It is stated in the syllabus at the beginning of the semester. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **WITH PROGRAM LEARNING OUTCOMES**  **COURSE LEARNING OUTCOMES RELATIONSHIP TABLE** | | | | | | | | | | | | | | | | | |  | **PO1** | | **PO2** | **PO3** | | **PO4** | **PO5** | | **PO6** | **PO7** | | **PO8** | **PO9** | | **PO10** | **PO11** | | **LO1** | 3 | | 2 | 3 | | 3 | 5 | | 5 | 3 | | - | 2 | | 4 | 2 | | **LO2** | 3 | | 2 | 3 | | 3 | 5 | | 5 | 3 | | - | 2 | | 4 | 2 | | **LO3** | 3 | | 2 | 3 | | 5 | 5 | | 5 | 3 | | - | 2 | | 4 | 2 | | **LO4** | 3 | | 3 | 3 | | 3 | 5 | | 5 | 3 | | - | 2 | | 4 | 2 | | **REVENGE: Learning Outputs OP: Program Outputs** | | | | | | | | | | | | | | | | | | **Contribution**  **level** | | **1 Very Low** | | | **2 Low** | | | **3 Medium** | | | **4 High** | | | **5 Very High** | | |   Relation of Program Outcomes and Related Course   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **lesson** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | | Industry 4.0 and Digital Transformation | 3 | 2 | 3 | 4 | 5 | 5 | 3 | - | 2 | 4 | 2 | |