

Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
IND459	Digital Company Management and Business Analytics	7	3	0	0	3	5

Prerequisites

Admission Requirements

Language of Instruction French

Course Type Compulsory

Course Level Bachelor Degree

The survival of companies today is directly related to their ability to use digital technologies and systems. In this course, digital transformation, industry 4.0, digital business management, and data/business analytics will be introduced, and industrial applications in digital business management and data/business analytics will be examined. In this context, the objectives of the course are determined as follows:

- Objective
- To provide students with basic knowledge of digital company management and basic approaches to the strategic role of digital transformation in management
 - To enable students to develop basic skills in planning, designing, and managing digital transformation in different businesses
 - To provide students with an overview of how to use industrial engineering-based solution methods for potential problems that digital companies may face
 - To provide students with basic knowledge of data/business analytics, business intelligence, and data science
 - To provide students with a perspective on data/business analytics applications in businesses
 - Enable students to learn and use a data/business analytics tool

Week 1: Digital company management, digital technologies, and systems, organizations and strategies in a globalized business world

Week 2: Planning and development for digital companies - Digital technologies infrastructure and current technologies

Week 3: Industry 4.0, digital transformation and digital technologies

Week 4: E-business and e-commerce; mobile business and mobile commerce; digital business

Week 5: Improving decision-making for digital companies - Decision support systems

Week 6: Digital transformation case studies

Week 7: Seminar - Digital transformation

Week 8: Seminar - Fundamentals of data/business analytics

Week 9: Midterm Exam

Week 10: Data/business analytics with Tableau

Week 11: Data/business analytics with Tableau

Week 12: Data/business analytics with Tableau

Week 13: Data/business analytics case studies

Week 14: Project presentations

1. Management Information Systems: Managing the Digital Firm (15th Edition), Kenneth C. Laudon & Jane P. Laudon. Pearson Education 2017.

2. Analytics: Data Analysis & Decision Making (5th Edition), S. Christian Albright & Wayne L. Winston. Cengage Learning 2014.

Software to be used in the course:

- Tableau: <https://www.tableau.com/>

References

Important web addresses:

- Türkiye Bilişim Derneği: <http://www.tbd.org.tr/>
- Türkiye Bilişim Vakfı: <http://www.tbv.org.tr/>
- Bilgi Toplum - E-Devlet Türkiye: <http://www.bilgitoplumu.gov.tr/>

Scientific journals that can be utilized:

- Information & Management, www.sciencedirect.com
- Journal of Strategic Information Systems, www.sciencedirect.com
- Electronic Commerce Research and Applications, www.sciencedirect.com

Theory Topics

Week**Weekly Contents**

- 1 Digital company management, digital technologies and systems, organizations and strategies in a globalized business world
- 2 Planning and development for digital companies - Digital technologies infrastructure and current technologies
- 3 Industry 4.0, digital transformation and digital technologies
- 4 E-business and e-commerce; mobile business and mobile commerce; digital business
- 5 Improving decision making for digital companies - Decision support systems
- 6 Digital transformation case studies
- 7 Seminar - Digital transformation
- 8 Seminar - Fundamentals of data/business analytics
- 9 Midterm Exam
- 10 Data/business analytics with Tableau
- 11 Data/business analytics with Tableau
- 12 Data/business analytics with Tableau
- 13 Data/business analytics case studies
- 14 Project presentations