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
Objective	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: - 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
Content	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

References	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/ Important web addresses: • Türkiye Bilişim Derneği: http://www.tbd.org.tr/ • Türkiye Bilişim Vakfı: http://www.tbv.org.tr/ • Bilgi Toplumu - 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