

## 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	<p>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:</p> <ul style="list-style-type: none"><li>- To provide students with basic knowledge of digital company management and basic approaches to the strategic role of digital transformation in management</li><li>- To enable students to develop basic skills in planning, designing, and managing digital transformation in different businesses</li><li>- To provide students with an overview of how to use industrial engineering-based solution methods for potential problems that digital companies may face</li><li>- To provide students with basic knowledge of data/business analytics, business intelligence, and data science</li><li>- To provide students with a perspective on data/business analytics applications in businesses</li><li>- Enable students to learn and use a data/business analytics tool</li></ul>
Content	<p>Week 1: Digital company management, digital technologies, and systems, organizations and strategies in a globalized business world</p> <p>Week 2: Planning and development for digital companies - Digital technologies infrastructure and current technologies</p> <p>Week 3: Industry 4.0, digital transformation and digital technologies</p> <p>Week 4: E-business and e-commerce; mobile business and mobile commerce; digital business</p> <p>Week 5: Improving decision-making for digital companies - Decision support systems</p> <p>Week 6: Digital transformation case studies</p> <p>Week 7: Seminar - Digital transformation</p> <p>Week 8: Seminar - Fundamentals of data/business analytics</p> <p>Week 9: Midterm Exam</p> <p>Week 10: Data/business analytics with Tableau</p> <p>Week 11: Data/business analytics with Tableau</p> <p>Week 12: Data/business analytics with Tableau</p> <p>Week 13: Data/business analytics case studies</p> <p>Week 14: Project presentations</p>

References	<p>1. Management Information Systems: Managing the Digital Firm (15th Edition), Kenneth C. Laudon &amp; Jane P. Laudon. Pearson Education 2017.</p> <p>2. Analytics: Data Analysis &amp; Decision Making (5th Edition), S. Christian Albright &amp; Wayne L. Winston. Cengage Learning 2014.</p> <p>Software to be used in the course:</p> <ul style="list-style-type: none"> <li>• Tableau: <a href="https://www.tableau.com/">https://www.tableau.com/</a></li> </ul> <p>Important web addresses:</p> <ul style="list-style-type: none"> <li>• Türkiye Bilişim Derneği: <a href="http://www.tbd.org.tr/">http://www.tbd.org.tr/</a></li> <li>• Türkiye Bilişim Vakfı: <a href="http://www.tbv.org.tr/">http://www.tbv.org.tr/</a></li> <li>• Bilgi Toplumu - E-Devlet Türkiye: <a href="http://www.bilgitoplumu.gov.tr/">http://www.bilgitoplumu.gov.tr/</a></li> </ul> <p>Scientific journals that can be utilized:</p> <ul style="list-style-type: none"> <li>• Information &amp; Management, <a href="http://www.sciencedirect.com">www.sciencedirect.com</a></li> <li>• Journal of Strategic Information Systems, <a href="http://www.sciencedirect.com">www.sciencedirect.com</a></li> <li>• Electronic Commerce Research and Applications, <a href="http://www.sciencedirect.com">www.sciencedirect.com</a></li> </ul>
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### 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