

Content

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

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| Prerequisites | |
| Admission Requirements | |

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| 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"> - 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 | <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> |

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| References | <p>1. Management Information Systems: Managing the Digital Firm (15th Edition), Kenneth C. Laudon & Jane P. Laudon. Pearson Education 2017.</p> <p>2. Analytics: Data Analysis & Decision Making (5th Edition), S. Christian Albright & Wayne L. Winston. Cengage Learning 2014.</p> <p>Software to be used in the course:</p> <ul style="list-style-type: none"> • Tableau: https://www.tableau.com/ <p>Important web addresses:</p> <ul style="list-style-type: none"> • 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/ <p>Scientific journals that can be utilized:</p> <ul style="list-style-type: none"> • Information & Management, www.sciencedirect.com • Journal of Strategic Information Systems, www.sciencedirect.com • Electronic Commerce Research and Applications, www.sciencedirect.com |
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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 |