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| ***ÇAĞ UNIVERSITY***  ***FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES*** | | | | | | | | | | | | | | | | | | | | | | | |
| **Code** | | | | **Course Title** | | | | | | | | | | | | **Credit** | | | | | **ECTS** | | |
| **ITL 305** | | | | New Technology for Business | | | | | | | | | | | | 3 (3-0-0) | | | | | 6 | | |
| **Prerequisites** | | | | | | | | **None** | | | | | | | | | | | | | | | |
| **Language of Instruction** | | | | | | | | English | | | | **Mode of Delivery** | | | | | | **Online** | | | | | |
| **Type and Level of Course** | | | | | | | | **Elective/3rd Year** | | | | | | | | | | | | | | | |
| **Lecturers** | | | | | **Name(s)** | | | | | | **LectureHours** | | | | | | **Office Hours** | | | | **Contacts** | | |
| **Course Coordinator** | | | | | Asst. Prof. Dr. Fatih Koç | | | | | | Monday  13:25 – 15:45 | | | | | | Wednesday  14:50-16:50 | | | | [**fatihkoc@cag.edu.tr**](mailto:fatihkoc@cag.edu.tr) | | |
| **Course Objective** | | | | | **The course is concerned with the process of digital transformation of business. Digital transformation has become a catch-all concept and the course aims at situating this concept in relation to examples of concrete developments of the transformation within business relating to the digitalization of work processes and services provided.** | | | | | | | | | | | | | | | | | | |
| **Learning Outcomes of the Course** | |  | **Students who have completed the course successfully should be able to** | | | | | | | | | | | | | | | | | **Relationship** | | | |
| **Prog. Output** | | | **Net Effect** |
| 1 | **Define Digital Transformation** | | | | | | | | | | | | | | | | | **3,7** | | | **4** |
| 2 | **Understand the impact of new technological trends on society** | | | | | | | | | | | | | | | | | **3,7** | | | **4** |
| 3 | **Understand business aspects of digitalization** | | | | | | | | | | | | | | | | | **4** | | | **5** |
| 4 | **Be able to prepare a report on the impact of digitalization on business** | | | | | | | | | | | | | | | | | **3,7** | | | **3** |
| 5 | **Be able to explain the impact of digitalization on privacy and ethical behaviour** | | | | | | | | | | | | | | | | | **2,6** | | | **5** |
| **Course Description: The course combines an examination of technology aspects of digital transformation as well as market and business aspects and policy and regulatory initiatives affecting digitalization processes. This implies that the network infrastructures, the management and processing of data, and the digital services and applications made available will be part of the topics as well as an examination of business processes and services including business models and ecosystems. Also, policy initiatives and regulatory measures will be discussed including EU policies in the area. So, after one semester study, students will be able to understand the impact of digitalization today’s society.** | | | | | | | | | | | | | | | | | | | | | | | |
| **Course Contents:( WeeklyLecture Plan )** | | | | | | | | | | | | | | | | | | | | | | | |
| **Weeks** | **Topics** | | | | | | | | | | | | **Preparation** | | | | | | **TeachingMethods** | | | | |
| **1** | Course Introduction | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **2** | Introduction to Digital Transformation | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **3** | Augmented, Virtual and Mixed Reality | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **4** | The Internet Of Things | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **5** | Hardware-Infrastructure Software-Programming | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **6** | Artificial Intelligence and Big Data | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **7** | How to exploit New Business Models | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **8** | Blockchain Technology and Cryptocurrencies | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **9** | Industry 4.0 production and assembly innovations | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **10** | Cybersecurity | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **11** | Ethical and Privacy Implications | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **12** | A closer look on new tech giants, Amazon, Google, Facebook ed. | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **13** | The place of nuclear technology in business | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **14** | Review for the Exam | | | | | | | | | | | | By Lecturer | | | | | | **Lecture Slides** | | | | |
| **REFERENCES** | | | | | | | | | | | | | | | | | | | | | | | |
| **Textbook** | | | | | | Umit Hacioglu - Digital Business Strategies In Blockchain Ecosystems  Transformational Design And Future Of Global Business-Springer (2020) | | | | | | | | | | | | | | | | | |
| **Course Notes** | | | | | | Instructor’s notes webpage: [www.cag.edu.tr/](http://www.cag.edu.tr/murat-gulmez)fatihkoc | | | | | | | | | | | | | | | | | |
| **Relatedlinks** | | | | | | www.welcome.ai | | | | | | | | | | | | | | | | | |
| **Recommended Reading** | | | | | | Annabeth Aagaard – Digital Business Model ( 2019 )  Stuart J. Russell, Peter Norvig - Artificial Intelligence\_ A Modern Approach, 3rd Edition-Pearson Education (2016)  Shoshana Zuboff - The Age of Surveillance Capitalism\_ The Fight for a Human Future at the New Frontier of Power-PublicAffairs Books (2019)  Max Tegmark - Life 3.0\_ Being Human in the Age of Artificial Intelligence-Alfred A. Knopf (2017)  Gunther Reinhart - Handbuch Industrie 4.0\_ Geschäftsmodelle, Prozesse, Technik-CARL HANSER Verlag GMBH & (2017) | | | | | | | | | | | | | | | | | |
| **ASSESSMENT METHODS** | | | | | | | | | | | | | | | | | | | | | | | |
| **Activities** | | | | | | | **Number** | | | **Effect** | | | | **Notes** | | | | | | | | | |
| ***Mid-Term Exam*** | | | | | | | **1** | | | **25%** | | | |  | | | | | | | | | |
| ***Homework Assignment*** | | | | | | | **1** | | | **25%** | | | |  | | | | | | | | | |
| ***Final Exam*** | | | | | | | **1** | | | **50%** | | | |  | | | | | | | | | |
| **ECTS TABLE** | | | | | | | | | | | | | | | | | | | | | | | |
| **Contents** | | | | | | | | | **Number** | | | | | | **Hours** | | | | | | | **Total** | |
| **Hours in Classroom** | | | | | | | | | **14** | | | | | | **3** | | | | | | | **42** | |
| **Hours out Classroom** | | | | | | | | | **14** | | | | | | **3** | | | | | | | **42** | |
| **Mid Term Exam** | | | | | | | | | **1** | | | | | | **40** | | | | | | | **30** | |
| **Final Exam** | | | | | | | | | **1** | | | | | | **56** | | | | | | | **34** | |
| **Total**  **Total / 30**  **ECTS Credit** | | | | | | | | | | | | | | | | | | | | | | **180** | |
| **=180/30=6** | |
| **6** | |
| **RECENT PERFORMANCE** | | | | | | | | | | | | | | | | | | | | | | | |
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