

COURSE SYLLABUS
Faculty of Economics and Administrative Sciences

Course Code	Course Name	Credit	ECTS Value
MAN 452	Artificial Intelligence	3 (3-0-3)	6
Prerequisite Courses:	None		
Course Language:	English	Course Delivery Method:	Online (Zoom)
Course Type and Level:	Elective/4th Year/Spring Semester		
Instructor's Title, First Name, and Last Name	Class Time	Office Hours	Contact
Dr. Gülay GÜLER	Monday 10:15 AM - 12:35 PM	Wednesday 10:15-12:35	gulayguler@cag.edu.tr

Course Coordinator:	
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Course Objective

Course Learning Outcomes	Students who successfully complete this course will be able to:	Relationships	
		Program Outcomes	Net Contribution
1	Explains the basic concepts, methods, and approaches related to artificial intelligence and machine learning.	2, 3, 9	4, 3, 4
2	Explains the processes of making predictions using big data and the fundamental artificial intelligence and machine learning algorithms.	2, 5, 9	5, 4, 5
3	Understands and interprets the fundamental intuition behind optimization problems.	5, 9	4, 5
4	Evaluates artificial intelligence-based product innovation, pricing, promotion, brand development, and segmentation applications.	3, 7, 8	3, 5, 4
5	Applies artificial intelligence solutions to real-life and business problems through case studies.	5, 6, 9	5, 4, 5
6	Analyzes the applications of artificial intelligence in creative content, storytelling, and advertising production.	1, 7, 9	4, 4, 5

Course Content:	
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Course Content: (Weekly Course Plan)

Week	Topic	Preparation	Teaching Methods and Techniques
1	Introduction and sharing expectations for the course	Students should review the course objectives and learning goals; they should be prepared to identify and share their own academic expectations.	Small group discussions, creating an expectation map
2	Introduction to Artificial Intelligence	Pre-reading on basic	Presentation, Q&A,

		artificial intelligence concepts	brainstorming
3	Fundamental Concepts of Artificial Intelligence and Machine Learning	Reading on basic concepts and example applications	Presentation, discussion, case study
4	Prediction Using Big Data	Article/case study review related to big data and data analytics	Experience sharing session, flipped classroom
5	Case Study-1	Pre-review of the case study text	Flipped Classroom and Role-Playing
6	The Intuition Behind Optimization	Short reading on optimization concepts	Presentation, problem solving, discussion
7	Socratic Practice Test	Students should review previous topics and solve sample questions to practice for the exam.	Sample application and question-answer
8	Midterm Exam		
9	Midterm Exam		
10	Fundamental Artificial Intelligence and Machine Learning Algorithms	Conceptual preparation for algorithms	Small group experimental activity and mind mapping
11	Artificial Intelligence Applications in Product Innovation	Examination of artificial intelligence-based product examples	Problem solving and discussion
12	Pricing and Promotion with Artificial Intelligence	Preliminary review of pricing and promotion examples	Experience sharing session, brainstorming
13	Brand Development and Segmentation with Artificial Intelligence	Reading on brand and segmentation applications	Flipped classroom and discussion
14	Case Study-2	Preview of the case study document	Flipped classroom and role-playing
15	Applications for Creative Stories and Advertisements	Review of creative artificial intelligence examples	Mind mapping and problem solving
16	Socratic Practice Test	Students should review previous topics and solve sample questions to practice for the exam.	Sample application and question-answer
17	Final Exam		
18	Final Exam		

Course Resources

Textbook:

Pradeep, A. K., Appel, A., & Sthanunathan, S. (2020). AI for marketing and product innovation: Powerful new tools for predicting trends, connecting with customers, and closing sales. John Wiley & Sons.

Artificial Intelligence: A Modern Approach - Stuart J. Russell, Peter Norvig, Pearson.

Recommended Resources:	<p>Jorzik, P., Klein, S. P., Kanbach, D. K., & Kraus, S. (2024). AI-driven business model innovation: A systematic review and research agenda. <i>Journal of business research</i>, 182, 114764.</p> <p>Chuma, E. L., & De Oliveira, G. G. (2023). Generative AI for business decision-making: A case of ChatGPT. <i>Management Science and Business Decisions</i>, 3(1), 5-11.</p>
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Course Assessment and Evaluation

Activities	Number	Contribution	Notes
Case Study-1	1	10	
Midterm Exam	1	30	The exam constitutes 40% of the total grade. 30% exam grade + %10 Case Study-1.
Case Study-2	1	10	
Final Exam	1	50	The final exam accounts for 60% of the total grade. 50% exam grade +10% Case Study-2.

ECTS Table

Content	Number	Hours	Total
Course Duration	14	3	42
Out-of-Class Work	14	6	84
Midterm Exam (Midterm Exam Duration + Midterm Exam Preparation)	1	30	30
Final Exam (Final Exam Duration + Final Exam Preparation)	1	30	30
Total:			186
Total / 30:			6.2
ECTS Credit:			6

Past Term Achievements

