Course Description Form	
Course Code and Name	5021329 Applied Artificial Intelligence
Course Semester	Fall-Spring
Catalog Content	Definition of artificial intelligence, basic concepts, techniques, applications
Textbook	Yapay Zeka Uygulamaları, Prof. Dr. Çetin Elmas, Mart 2016 / 3. Baskı
Supplementary Textbooks	Artificial Intelligence: A Modern Approach. Stuart Russell, Peter Norvig, Prentice Hall, Second Edition
Credit	8
Prerequisites of the Course **(** *Attendance Requirements***)**	There is no prerequisite or co-requisite for this course.
Type of the Course	Elective
Instruction Language	Turkish
Course Objectives	Teaching of principle and base of artificial intelligence which applied in engineering, Detailed analysis of how it is applied in engineering applications.
Course Learning Outcomes	1-It will be able to produce both theoretical and practical solutions to problems that may be encountered in Artificial Intelligence. 2- It learns how to develop artificial intelligence applications.
Instruction Methods	The mode of delivery of this course is face to face
Weekly Schedule	1.Week Introduction 2.Week Intelligence, Artificial Intelligence, Artificial Intelligence techniques and basic principles 3.Week Learning strategies 4.Week Learning strategies 5.Week Problem solving and searching strategies 6.Week Principles 7.Week Artificial Intelligence Tools 8.Week Artificial Intelligence Tools 9.Week Knowledge representation, methods and techniques 10.Week Knowledge representation, methods and techniques 11.Week Problem-solving methods 12.Week Application examples of LISP and PROLOG 13.Week Project presentation 14.Week Project presentation
Teaching and Learning Methods *(These are examples. Please fill which activities you use in the course)*	Weekly theoretical course hours Weekly tutorial hours Reading Activities Internet browsing, library work Designing and implementing materials Report preparing Preparing a Presentation Presentations Preparation of Midterm and Midterm Exam Final Exam and Preparation for Final Exam

Assessment Criteria

	Numbers	**Total Weighting (%)**
Midterm Exams		30
Assignment		10
Application		20
Projects		40
Practice		
Quiz		
Percent of In-term Studies (%)		40
Percentage of Final Exam to Total Score (%)		60
Attendance		

Workload

Activity	Total Number of Weeks	Duration (weekly hour)	Total Period Work Load
Weekly Theoretical Course Hours	14	3	42
Weekly Tutorial Hours	3	3	9
Reading Tasks	14	3	42
Studies	14	3	42
Material Design and Implementation	5	5	25
Report Preparing	1	7	7
Preparing a Presentation	1	5	5
Presentations	1	3	3
Midterm Exam and Preperation for Midterm Exam	1	10	10
Final Exam and Preperation for Final Exam	1	15	15
Other (should be emphasized)			
Total Workload			200
Total Workload / 25			8
Course Credit (ECTS)			8

Contribution Level Between Course Learning Outcomes and Program Outcomes

No	Program Outcomes	1	2	3	4	5
1	Reaches the expansion of knowledge by conducting scientific research in the field of engineering and evaluation, interpretation and application of information.				X	
2	Has extensive and in depth knowledge including the latest techniques, methods applied and their limitations in engineering.				X	
3	Completes and applies knowledge by using scientific methods by using limited or missing data and integrates information from different disciplines.				X	
4	Be aware of new and developing practices of the profession, examines and learns when needed.				X	
5	Defines and formulates problems related to the field, develops methods to solve them and applies innovative methods in solutions.				X	
6	Develops new and / or original ideas and methods, designs complex systems or processes and develops innovative / alternative solutions in their designs.				X	
7	Designs and applies theoretical, experimental and modeling based researches, examines and solves the complex problems encountered in this process.			X		
8	Works effectively in disciplinary and multidisciplinary teams, leads such teams and develops solution approaches in complex situations, works independently and takes responsibility.			X		

	9	Communicates oral and written using a foreign language at least at the level of European Language Portfolio B2.				X		
	10	Conveys the process and results of the studies in written and oral form in a systematic and clear manner in national and international environments within or outside the field.				X		
	11	Knows the social, environmental, health, security, legal aspects of engineering applications; project management, and business life applications and be aware of the constraints of these engineering applications.				X		
	12	Considers social, scientific and ethical values in the stages of data collection, interpretation and announcement and in all professional activities.				X		
The Course's Lecturer(s) and Contact Informations	Name, Surname: Prof.Dr.Şeref SAĞIROĞLU E-mail address: ss@gazi.edu.tr							