



Course Specifications

Course Title:	Artificial Intelligence Applications
Course Code:	MIS10505
Program:	Management Information Systems
Department:	Management Information Systems
College:	Business Administration
Institution:	Albaha University

Table of Contents

A. Course Identification	3
6. Mode of Instruction (mark all that apply)	Error! Bookmark not defined.
B. Course Objectives and Learning Outcomes	3
1. Course Description	3
2. Course Main Objective.....	3
3. Course Learning Outcomes	4
C. Course Content	4
D. Teaching and Assessment	4
1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods	4
2. Assessment Tasks for Students	5
E. Student Academic Counseling and Support	5
F. Learning Resources and Facilities	5
1. Learning Resources	5
2. Facilities Required.....	6
G. Course Quality Evaluation	6
H. Specification Approval Data	6

A. Course Identification

1. Credit hours: 3 Hrs.
2. Course type
a. University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b. Required <input type="checkbox"/> Elective <input checked="" type="checkbox"/>
3. Level/year at which this course is offered: Level 5/Year 3
4. Pre-requisites for this course (if any):
5. Co-requisites for this course (if any):

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	%67
2	Blended		
3	E-learning	15	%33
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	30
2	Laboratory/Studio	-
3	Tutorial	15
4	Others (specify)	-
	Total	45

B. Course Objectives and Learning Outcomes

<p>1. Course Description: This course is an introduction to the field of computer intelligence .it covers rule-based expert systems, fuzzy expert systems, frame-based expert systems, artificial neural networks, and knowledge engineering.</p>
<p>2. Course Main Objective The course provides an introduction to the types of problems and techniques in Artificial Intelligence. Problem-Solving methods and major structures used in Artificial Intelligence programs, constraint satisfaction problems.</p>

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Recognize problems that may be solved using artificial intelligence and machine learning.	K1
1.2	list examples of some applications (techniques, limitations, differences) such as Expert Systems And Machine learning	K2
2	Skills :	
2.1	Solve problems using search techniques: depth-first, breadth-first, forward chaining, backward chaining, best-first, branch-and-bound, and-or-graph, and heuristic search.	S.1
2.2	Analyze and design a fuzzy logic system using fuzzy logic tool box.	S.4
2.3	Demonstrate effectiveness in working in a group	S.5
3	Values:	
3.1	Develop research and Web search skills	V1
3.2	Communicate and present results/information Effectively	V2

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Intelligent Systems	6
2	Rule-Based Expert Systems	9
3	Fuzzy Expert Systems	9
4	Frame-Based Expert Systems	6
5	Artificial Neural Networks	9
6	knowledge engineering	6
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	Recognize problems that may be solved using artificial intelligence and machine learning.	Lecture, Support readings, group discussions, writing reports , research.. Conducting individual tasks, practical training, field training, and presentations. Activities and homework	Quiz, Midterm and Final exams Assessing individual & group tasks and presentation and discussions Assessment of activities , participations and homework
1.2	list examples of some applications (techniques, limitations, differences) such as Expert Systems And Machine learning		
2.0	Skills		
2.1	ability to solve problems using search techniques: depth-first, breadth-first, forward chaining, backward chaining, best-first,	Testing and training process	

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	branch-and-bound, and-or-graph, and heuristic search.	Fields studies and group discussion Individual group tasks Problem solving tasks and case study activities and homework	Assignments, Quizzes, Practical Work, Presentations, Mid and Final Exam
2.2	ability to analyze and design a fuzzy logic system using fuzzy logic tool box.		
2.3	Demonstrate effectiveness in working in a group		
3.0	Values		
3.1	Develop research and Web search skills	Cooperative learning and application of scientific method in thinking by solving problems. Work as part of a team. Conducting group research and writing reports. Dividing students into groups to cooperate with each other for a better understanding of the terms of marketing.	Assessment by written reports. Assessing activities and homework Group and individual presentations Computer and internet-based assignments
3.2	Communicate and present results/information effectively		
...			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quizzes	7-8	10%
2	Practical Work	1-14	5%
3	Assignments & Discussions & presentation	1-14	5%
4	Mid Term Examination	8-9	30%
5	Final Examination	15-16	50%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	Title: Artificial Intelligence Michael Negnevitsky. <i>Artificial Intelligence: A guide to Intelligent Systems</i> , third edition, 2010.
Essential References Materials	Artificial Intelligence: A Modern Approach, Stuart Russell and Peter Norvig , 3/E, Prentice Hall 2010, ISBN-13: 9780132126847. Artificial Intelligence : Structures and Strategies for Complex Problem Solving, George F. Luger, 2004, 6th Edition, Addison-Wesley 2009, ISBN: 0-805-31196-3

Electronic Materials	http://faculty.sau.edu.sa/m.elhajjej/ A.M. Turing, "Computing machinery and intelligence" Mind, Vol. 59, No. 236, pp. 433-460 (1950) [http://www.jstor.org/pss/2251299]
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	A designated computer lab is required to teach the course. The lab should accommodate 20 students
Technology Resources (AV, data show, Smart Board, software, etc.)	<ul style="list-style-type: none"> • Up-to-date Projector • Up-to-date Smart Board • High Speed Internet Connection • Solid up-to-date computers (Windows)
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of Teaching	Students	Surveys
Evaluation of Teaching	staff members teaching the course	Discussions
Verifying Standards of Student Achievement	independent teaching staff from within the department and/or other departments within the college	Marking of assignments and exam submissions Revision
effectiveness and planning for improvement.	staff members teaching the course	course report

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Minutes of the Council of Management Information Systems Department
Reference No.	3
Date	8.12.2021