Jordan University of Science and Technology

Faculty of Computer & Information Technology

Computer Science Department

CS362 Artificial Intelligence - JNQF Level: 7
Second Semester 2023-2024

Course Catalog
3 Credit Hours. Introduction to the types of Artificial Intelligence problems and techniques. Problem-Solving methods. Major structures used in Artificial Intelligence programs. Introduction to Machine Learning. Study of knowledge representation techniques such as predicate logic, non-monotonic logic, and probabilistic reasoning. Application areas such as game playing, expert systems, natural language understanding, and robotics. Projects using one of the Artificial Intelligence programming languages.
Teaching Method: Blended

Text Book	
Title	Artificial Intelligence: A Modern Approach
Author(s)	Stuart Russell & Peter Norvig
Edition	4th Edition
Short Name	Textbook
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
TextBook2	Artificial Intelligence with Python	Alberto Artasanchez Prateek Joshi	2nd Edition	

Instructor	
Name	**Dr. Qanita Bani baker**
Office Location	-
Office Hours	
Email	qmbanibaker@just.edu.jo

Instructor

Name	**Miss Ghadeer Obeidat**
Office Location	A1-L3
Office Hours	
Email	gnobiedat@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun, Tue : 12:30 - 13:30 Room: CH2109 Section 2: Lecture Time: Sun, Tue : 11:30 - 12:30 Room: G2120 Section 5: Lecture Time: Sun, Tue : 10:30 - 11:30 Room: C5020

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
1732841	CS284 Analysis And Design Of Algorithms	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Week 1	Introduction	**Ch1** From **Textbook**
Week 2	Intelligent Agents	**Ch2** From **Textbook**
Weeks 2, 3, 4	Problem Solving as Search	**Ch3** From **Textbook**
Weeks 4, 5	Search in Complex Environments (4.1)	**Ch4** From **Textbook**
Week 6	Constraint Satisfaction Problems	**ch6** From **Textbook**
Week 7	Adversarial Search	**ch5** From **Textbook**
Weeks 8, 9, 10, 11, 12, 13	Machine Learning	**Selected Chapters** From **TextBook2**
Weeks 13, 14	Extra Topics from Knowledge, reasoning, and planning (Logical Agent)	**ch7 ch8 ch9 ch12 ch13** From **Textbook**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	**Course Outcome Weight (Out of 100%)**	**Assessment method**

Ability to apply fundamental AI concepts in analyzing, designing, and implementing intelligent agents that solve some of the AI problems. [1SO1] [1L7K1]	80%	
Ability to implement a project to produce AI computing-based solutions. [1SO6] [1L7C4]	20%	

Relationship to Program Student Outcomes (Out of 100%)										
SO1	SO2	SO3	SO4	SO5	SO6	MSO1	MSO2	MSO3	MSO4	MSO5
80					20					

Relationship to NQF Outcomes (Out of 100%)	
L7K1	L7C4
80	20

Evaluation	
Assessment Tool	**Weight**
First Exam	20%
Activities	20%
Final Exam	40%
Second Exam	20%

Policy	
Attendance	Attendance is very important for the course. In accordance with university policy, students missing more than 10% of total classes are subject to failure. Penalties may be assessed without regard to the student's performance. Attendance will be recorded at the beginning or end of each class.
Homework/Lab	Students are expected to keep up with the material as it is presented and submit assignments on time.
Exams	All exams will be CLOSE-BOOK; necessary algorithms/equations/relations will be supplied as convenient. The date of the Exams will be scheduled later.
Note	Some adjustments in the topics timeline per week could be modified as required.

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