

ARTIFICIAL INTELLIGENCE 2 COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	University of Baghdad/ College of science for women
2. University Department/Centre	Computer Science department
3. Course title/code	Artificial Intelligence 2\311 CAI2
4. Modes of Attendance offered	Actual attendance required for all students even in the case of (passed) student, and there is no study remotely and according to the ordered laws.
5. Semester/Year	Third class / Second semester

6. Number of hours tuition (total)	60 hours (30 theoretical part, 30 practical part)
7. Date of production/revision of this specification	٢٠١٦-٤-٢١
8. Aims of the Course	
<p>To enable the students to realize the key issues of blind and heuristic search and knowledge representation. To have a basic explanation of some advanced topics of AI such as natural language processing, and machine learning , moreover an understanding of some other materials such as resolution, Production System, Semantic Net, Frames, etc. that play an important role in AI applications. Prolog programming language is applied in this course.</p>	

9. Learning Outcomes, Teaching ,Learning and Assessment Methode	
MM-	<p>Knowledge and Understanding</p> <p>An introduction to the techniques, and applications of Artificial Intelligence. This course will cover the unification principle with the detail of MGU unification algorithm, some knowledge representation methods such as: Resolution, Semantic Net, and Frames. Application fields such as production system, planning, natural language processing, and machine learning. The PROLOG programming language are applied in this course is well.</p>
	<p>B. Subject-specific skills</p> <p>Choose the appropriate way to represent knowledge on specific application and by the size of this knowledge (information) and the nature and components and how connections between them</p>
Teaching and Learning Methods	

- Education: provide printed lectures or modern sources and diverse and rich including examples.
- Education: Harnessing the blackboard to the goal of teaching students and explain the steps the solution and extraction results.
- Education: resolving some questions, with intent to contain mistakes and make the students extracted error.
- Learning: asking questions and inquiries and making the student turn into a teaching explanation and solution on the blackboard at that point.
- Learning: questions and direct all students to graduate to learn the extent of interaction and the rest to be paid attention to.

Assessment methods

- Quizzes (quiz) semi-weekly
- Reporting and in the form of aggregates by a report for each set and distributed it over students
- Asking questions sudden that overlapping with the explained Article
- laboratory tests on the computer and is written to enable the student to the solution without a computer
- monthly and quarterly tests

C. Thinking Skills

C1. Ask a group solutions to the same problem and discussed both individually and determine the appropriate method of solution to the problem at hand with a stand on the disadvantages of the rest of the methods

C2. Put forward solutions contain inaccuracies and identifying these mistakes After discussion and processed

C3. Asked oral exceptional questions that need exceptional answers as be of a specific weight in terms of grades, which are a strong incentive for student's participation and competition.

Teaching and Learning Methods

Discussions that arise in the course of the lecture, and an attempt to involve the largest possible number of students, and touched on the details of things and discussed objectively and targeted discussion.

Assessment methods

Oral evaluated by involving students in discussions

- Quizzes (quiz)
- laboratory tests on the computer and is written
- exams monthly and quarterly

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Alert errors in students' oral answers and discuss to find out its mistake

D2. Alert on errors students' editorial answers and marking them to clarify to the students

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	5	the Unification principle	Recursion	According to point 10 above and as needed	According to point 10 above and as needed
2	5	Unification Algorithm (Most General Unifier)	Recursion Example	According to point 10 above and as needed	According to point 10 above and as needed
3	5	Skolemization and Clause Normal Form	Recursion Example	According to point 10 above and as needed	According to point 10 above and as needed
4	5	Modus Ponens And Tollens	Defining List in Prolog	According to point 10 above and as needed	According to point 10 above and as needed
5	5	Resolution: Resolution In Propositional Logic	List Example	According to point 10 above and as needed	According to point 10 above and as needed
6	5	Resolution In Predicates Logic - And / Or Graph	List Example	According to point 10 above and as needed	According to point 10 above and as needed
7	5	Production System	String Manipulation	According to point 10 above and as needed	According to point 10 above and as needed
8	5	Semantic Net	Data Base in Prolog	According to point 10 above and as needed	According to point 10 above and as needed
9	5	First exam			

10	5	Semantic Net	Prolog Data Base Example	According to point 10 above and as needed	According to point 10 above and as needed
11	5	Frames	Visual prolog debugger	According to point 10 above and as needed	According to point 10 above and as needed
12	5	Script - Planning	Menus and submenus	According to point 10 above and as needed	According to point 10 above and as needed
13	5	Natural Language Processing	building new window, Building dialogs	According to point 10 above and as needed	According to point 10 above and as needed
14	5	Machine Learning	Project	According to point 10 above and as needed	According to point 10 above and as needed
15	5	Final and second exam			

12. Infrastructure

<p>Required reading:</p> <ul style="list-style-type: none"> · CORE TEXTS · COURSE MATERIALS · OTHER 	<ol style="list-style-type: none"> 4. George Luger, Artificial Intelligence: Structures and Strategies for Complex Problem Solving, Addison-Wesley, 2008 5. Stuart Russell and Peter Norvig, Artificial Intelligence: A Modern Approach, Prentice Hall, Englewood Cliffs, New Jersey, 2010. 6. Visual Prolog Version 5.0: Get Started, Prolog Development Center, 1997
<p>Special requirements (include for example workshops, periodicals, IT software, websites)</p>	<ol style="list-style-type: none"> 1. Hastie, Tibshirani, and Friedman. The elements of statistical learning. Available free online. 2. Selected Topics about AI
<p>Community-based facilities (include for example, guest Lectures , internship , field studies)</p>	

13. Admissions	
Pre-requisites	
Minimum number of students	Depending on the size of the classroom, according to the division of the people, 20 students
Maximum number of students	Depending on the size of the classroom, according to the division of the people, 30 students.