

## TEMPLATE FOR 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 program specification.

1. Teaching Institution	Al-Nahrain University/ College of Science
2. University Department/Centre	Computer Science department
3. Course title/code	Artificial intelligence/COMP340
4. Programme(s) to which it contributes	B.Sc. in Computer Science
5. Modes of Attendance offered	Full Time
6. Semester/Year	First Semester/ 2022-2023
7. Number of hours tuition (total)	30 Theory + 30 Practical
8. Date of production/revision of this specification	
9. Aims of the Course	<i>Introduction- Basics in artificial intelligence, predicates calculus, production rules, semantics nets, graph theory ,strategies for state space search</i>

## 10· Learning Outcomes, Teaching ,Learning and Assessment Method

### A- Knowledge and Understanding

- A1. Basic knowledge about artificial intelligence
- A2. Focus on learning Java program from intelligent agents and its environments
- A3. Comparing between known methods from time and best state to found goal.
- A4.

### B. Subject-specific skills

- B1. The ability to use Java language, and applying the theory fundamentals of agents and use different search algorithms.
- B2. Improve the student's analysis and conclusion capabilities.
- B3.

### Teaching and Learning Methods

Lectures, problem classes

### Assessment methods

Exam, Test

### C. Thinking Skills

- C1. Asking: Seeking new information
- C2. Deduce and Conclude.
- C3. Compare.
- C4. Classify

### Teaching and Learning Methods

Lectures, problem classes

### Assessment methods

Exam, Test

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

- D1.
- D2.
- D3.
- D4.

## 11. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2 theory + 2 Lib		Introduction of Artificial intelligence	Formal Lectures	Class Activity
2	=		AI as Study and Design of Intelligent Agents	=	Class Activity and Quiz
3	=		AGENTS AND ENVIRONMENTS	=	Class Activity and Quiz
4	=		THE CONCEPT OF RATIONALITY	=	Class Activity and Quiz
5	=		THE NATURE OF ENVIRONMENTS	=	Class Activity
6	=			=	
7	=		THE STRUCTURE OF AGENTS -Simple reflex agents -Model based Reflex Agents	=	Class Activity
8	=		-Goal-based Agents - Utility-based Agents	=	Class Activity
9	=		- Learning Agents	=	Class Activity
10	=		PROBLEM SOLVING AGENTS	=	Class Activity and Quiz
11	=		EXAMPLE PROBLEMS	=	Class Activity
12	=		SEARCHING FOR SOLUTIONS	=	Class Activity
13	=		UNINFORMED SEARCH STRATEGIES(Breadth first search)	=	Class Activity and Quiz
14					
15	=		-Depth-first search - A* algorithm	=	Class Activity

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	<ol style="list-style-type: none"> <li>1. <a href="#">Artificial Intelligence : A Modern Approach</a>, by Russell and Norvig, 3rd Edition (Prentice-Hall, 2010)<sup>12</sup></li> <li>2. <a href="#">Artificial Intelligence: Foundations of Computational Agents</a>. by Poole and Mackworth. (P&amp;M)</li> </ol>
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (include for example, guest Lectures , internship , field studies)	