ADVANCE COMPUTER ARCHITECTURE 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	Baghdad University / College of Science for Women
2. University Department/Centre	Department of Computer Science
3. Course title/code	Advance Computer Architecture
4. Programme(s) to which it contributes	
5. Modes of Attendance offered	Actual attendance and There is no real presence of distance learning by applicable laws.

6. Semester/Year	third year / Semester I
7. Number of hours tuition (total)	30 hours Theoretical,
8. Date of production/revision of this specification	18/6/2016

9. Aims of the Course

This article aims to enable the student to identify students to the basic Altqatat architectures used in modern computers, which have been drawn from a number of sources purpose consolidate the foundations and rules for the methodology of the decision.

10· Learning Outcomes, Teaching ,Learning and Assessment Methode

CC- Knowledge and Understanding
A1.Identify to Introduction the architectural principles of Advanced Computer.

A2.Identify to Introduction the new technologies included in Advanced Computer Architecture.

A3.Learn methods and rules of performance advanced computer architecture.

A4.Modern description of the suggestions used in advanced computer architecture.

A5Parallel instructions in advanced computer architecture.

A6 Designs parallel instructions and limitations resulting from their use

B. Subject-specific skills

B1. to learn advanced computer architecture principles.

B2. Gain skills in identifying new technologies included in Advanced Computer Architecture.

B3. Acquire skills in the use of parallel instruction in advanced computer

architecture.

B4.Compared to identify the effectiveness and speed of activating the parallel instruction.

Teaching and Learning Methods

Education: give printed lecturer from modern variety of sources

•Education: using smart blackboard to the goal of teaching students and explain the steps the solution and extraction results

•Education: resolving some questions, with intent to contain errors and make students extracting error

•Learning: asking questions and inquiries and make the student turn into a teaching explanation and solution on the blackboard at that point

•Learning: questions directly and gradually all students to learn the extent of interaction and the rest to be paid attention to

Assessment methods

- Short tests (quizzes) semi-weekly.
- Questions with sudden deep character put in by explaining the material.
- Monthly and quarterly tests.

C. Thinking Skills

C1. Introducing a range of solutions to the same problem, discuss and determine   how best solution with surrounding defects Other roads.

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

C3. Ask questions during the lecture, which will be replaced competition among students to encourage them to participate And thinking properly.

Teaching and Learning Methods

Discussions that arise in the course and try to involve the largest possible number of students, and touched on things and discussed the details of a substantive debate and targeted.

Assessment methods

- Sudden quizzes.
- Ask questions during a sudden extra ordinary explain the material and reward   the student who answers them
- Monthly tests.

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

D1. Giving homework to students and ask them to solve them to see any strengths and weaknesses

D2. Alert students to errors in their answers oral and discussed by the rest of the students

D3. Alert students to errors in their answers written and clarified

11. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	٢	**Classes of Computers**	**Classes of Computers**		
2	٢	**Defining Computer Architecture**	**Defining Computer Architecture**		
3	٢	**Trends in Technology**	**Trends in Technology**		
4	٢	**Trends in Power in Integrated Circuits**	**Trends in Power in Integrated Circuits**		
5	٢	**Trends in Cost**	**Trends in Cost**		
6	٢	**Dependability**	**Dependability**		
7	٢	**Measuring, Reporting, and Summarizing Performance**	**Measuring, Reporting, and Summarizing Performance**		
8	٢	**Quantitative Principles of Computer Design**	**Quantitative Principles of Computer Design**		
9	٢	**Instruction Level Parallelism (ILP) Concept and Challenges**	**Instruction Level Parallelism (ILP) Concept and Challenges**		
10	٢	**Basic Compiler Technologies for Exploiting ILP**	**Basic Compiler Technologies for Exploiting ILP**		
11	٢	**Reducing Branch Costs with Prediction**	**Reducing Branch Costs with Prediction**		
12	٢	**Overcoming Data Hazards with**	**Overcoming Data Hazards with**		

		Dynamic Scheduling	Dynamic Scheduling		
13	٢	Limits on Instruction Level Parallelism	Limits on Instruction Level Parallelism		
14	٢	Studies of the Limitations of ILP	Studies of the Limitations of ILP		
15	٢	Limitations on ILP for Realizable Processors	Limitations on ILP for Realizable Processors		

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	The 8088 and 8086 Microprocessor ,forth edition ,2003
Special requirements (include for example workshops, periodicals, IT software, websites)	Software of Pascal programming language
Community-based facilities (include for example, guest Lectures , internship , field studies)	

13. Admissions	
Pre-requisites	Computer architecture1, Computer

	architecture2
Minimum number of students	Depending on the size of the classroom, according to the division of the group.
Maximum number of students	Depending on the size of the classroom, according to the division of the group