OPERATING SYSTEM 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	Operating Systems2\411 COS2
4. Programme(s) to which it contributes	Operating Systems
5. Modes of Attendance offered	Physical Attendance
6. Semester/Year	Fourth Year/ Second Semester

7. Number of hours tuition (total)	60 total (30 theoretical, 30 practical)
8. Date of production/revision of this specification	16/6/2016
9. Aims of the Course	
To understand the basic components of the operations of the OS and start dealing with the algorithms and how to manage some critical situations that may arise during the operations of the user programs, besides the scheduling and synchronization of the operation of the processor as well as the user programs, memory management also are considered here.	

10· Learning Outcomes, Teaching ,Learning and Assessment Methode

K- Knowledge and Understanding

A1- recognize the concept of operating systems, and what are the most important functions and features and how to assess their work.
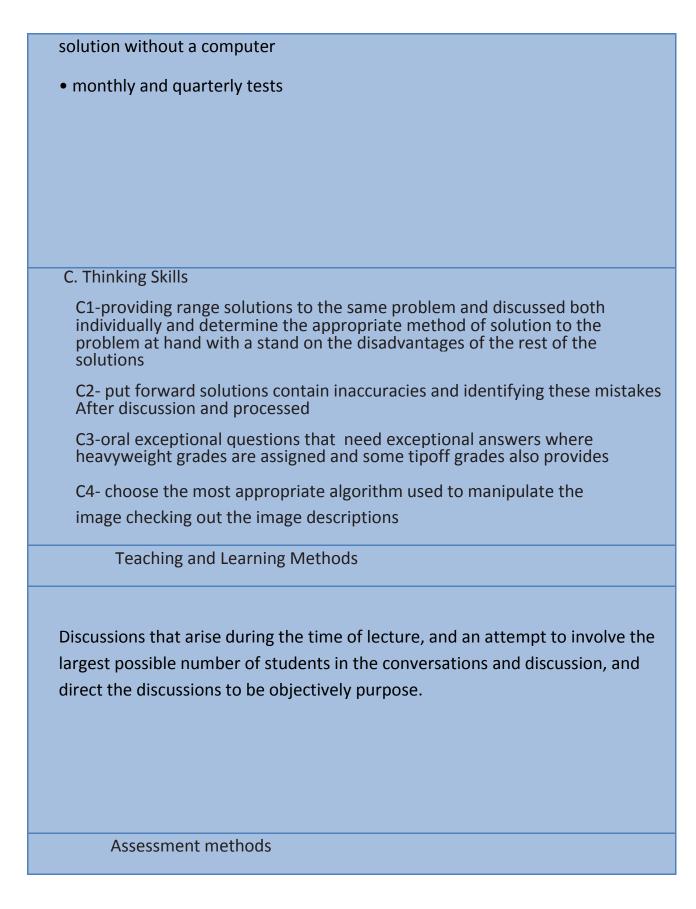
A2- learn about the history of operating systems and what other knowledge associated fields.

A3-. Also you have the ability to know or estimate the extent of systems that have been built, its validity, and areas of weaknesses

A4- writing the algorithms that are necessary to operate the OS and trace the errors and faults that may arise

B. Subject-specific skills

B1. Deadlock management and recovery

B2. How to arrange the main memory

B3. Virtual and real mode of operation of OS and how to control them

B4. CPU scheduling algorithms

B5. Threads, processes and how to control, create and destroy them

Teaching and Learning Methods
• Education: provide lectures and printed sources from the modern, diverse and rich sources including examples • Education: Harnessing 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 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, brainstorming method • Learning: questions directly and consequently all students to learn the extent of interaction and the rest to be paid attention to • Learning: Each specific group and explain its interaction between students with questions and answers and provide an environment that enables the student to lecture management or debate
Assessment methods
• Quizzes (quiz) semi-weekly • Reporting and in the form of aggregates by a report for each set and presented over students • Questions sudden and overlapping put up with to explain 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-providing range 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 solutions

C2- put forward solutions contain inaccuracies and identifying these mistakes After discussion and processed

C3-oral exceptional questions that need exceptional answers where heavyweight grades are assigned and some tipoff grades also provides

C4- choose the most appropriate algorithm used to manipulate the

image checking out the image descriptions

Teaching and Learning Methods

Discussions that arise during the time of lecture, and an attempt to involve the largest possible number of students in the conversations and discussion, and direct the discussions to be objectively purpose.

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- distribution of specific topics for each group of students to prepare research reports from the the World Wide Web, the sources or the library and drafted in accordance with the basis of the approved formulation research

D2-giving leadership debate administration, however, the group discussion and enable them to drive and manage the dialogue

D3- alert on errors in the answers to the oral and discuss them to learn their mistake

D4- alert on errors in the answers of students in the written exams to clarify to the student

11. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	4	Inheritance In Java	Chapter 6: CPU Scheduling	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
2	4	Access Modifiers in Inheritance	Chapter 6: CPU Scheduling	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
3	4	Methods and Constructors Inheritance	Chapter 6: CPU Scheduling	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
4	4	Thread Overview	Chapter 6: CPU Scheduling	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
5	4	Defining Thread Class	Chapter 7: Process Synchronization	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand

6	4	Building First Thread	Chapter 7: Process Synchronization	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
7	4	Program With Multithreaded	Chapter 7: Process Synchronization	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
8	4	Changing the Thread Priority	Chapter 7: Process Synchronization	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
9	4	Join, Sleep and Yield Methods	Chapter 7: Process Synchronization	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
10	4	Static Variables and Functions in Threads	Chapter 8: Deadlock Handling	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
11	4	Synchronization programming	Chapter 8: Deadlock Handling	According to point 10 hereinabove and on	According to point 10 hereinabove and on demand

				demand	
12	4	Synchron ization program ming	Chapter 8: Deadlock Handling	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
13	4		exam	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
14	4	Synchron ization program ming	Chapter 9: Memory Management	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
15	4	Synchron ization program ming	Chapter 9: Memory Management	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
16	4		Exam	According to point 10 hereinabove and on demand	According to point 10 hereinabove and on demand
12. Infrastructure					

Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	4- Applied Operating System Concepts, Peter Gatrin, 6'th Edition, 2005 5- An introduction to Operating System, Framingham,1'st edition, 1983 6- Operating System Concept Silber Schatz Galvin, 5'th Edition, 1997
Special requirements (include for example workshops, periodicals, IT software, websites)	Java language
Community-based facilities (include for example, guest Lectures , internship , field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	Subject to classroom size, 20 student as minimum
Maximum number of students	Subject to classroom size, maximum 30 students