هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

اعتماد NCAAA T4 2020

Course Specifications

Course Title:	**System Administration and Maintenance**
Course Code:	**IT432**
Program:	Computer Science/ Information Technology
Department:	Information Technology
College:	College of Computer and Information Sciences
Institution:	Majmaah University

Table of Contents

A. Course Identification

1. Credit hours:	3 (3,0,1)
2. Course type	
a.	University ☐ College ☐ Department ☒ Others ☐
b.	Required ☒ Elective ☐
3. Level/year at which this course is offered:	**Level 12**
4. Pre-requisites for this course (if any)**:**	CS360 Software Engineering
5. Co-requisites for this course (if any)**:**	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**		
2	**Blended**		
3	**E-learning**		
4	**Distance learning**	44	100%
5	**Other**		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	30
2	**Laboratory/Studio**	
3	**Tutorial**	14
4	**Others** (specify)	
	Total	44

B. Course Objectives and Learning Outcomes

1. Course Description

This course aims to give students the fundamentals of operating Systems administration and maintenance. Focus will be on installation, maintenance and managing of several systems for multi-user environments

2. Course Main Objective

1. Install, administrate and maintain operating systems.
2. Use techniques for troubleshooting and modifying operating systems.
3. Manage accounts on operating systems.
4. Configure and modify network services for operating systems.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding**	
1.1	CLO2 Use techniques for troubleshooting and modifying operating systems.	K1
1.2		
1.3		
1...		
2	**Skills :**	
2.1	CLO1 Install, administrate and maintain operating systems.	S2
2.2	CLO3 Manage accounts on operating systems.	S2
2.3	CLO4 Configure and modify network services for operating systems.	S2
2...		
3	**Values:**	
3.1		
3.2		
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Introduction of Systems administration	2
2	Operating System Installation & configuration	4
3	File System Organization	3
4	Network Services (HTTP, LPR, NFS, SMTP, SSH, etc.)	4
5	Performance Monitoring	6
6	System Support and Maintenance, Application Installation & configuration	8
7	Server Processes	2
8	Client Processes, Application Support & Maintenance	5
9	Server Administration & Management, User and Group Management	6
10	Security Management, Job Scheduling & Automation	4
Total		44

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
1.1	CLO2: Use techniques for troubleshooting and modifying operating systems.	Classroom Teaching	Mid Exam, Final Exam
1.2			
…			
2.0	**Skills**		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.1	CLO1: Install, administrate and maintain operating systems.	Classroom Teaching and Lab Exercises	Lab Based Assignments, Mid Exam, Final Exam
2.2	CLO3: Manage accounts on operating systems	Classroom Teaching and Lab Exercises	Lab Based Assignments, Mid Exam, Final Exam
2.3	CLO4: Configure and modify network services for operating systems.	Classroom Teaching and Lab Exercises	Lab Based Assignments, Mid Exam, Final Exam
3.0	**Values**		
3.1			
3.2			
…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quiz 1	Week 2	5%
2	Assignment 1	Week 3	5%
3	Assignment 2	Week 5	5%
4	Midterm Exam	Week 6	20%
5	Assignment 3	Week 7	10%
6	Quiz 2	Week 8	5%
7	Assignment 4	Week 9	5%
8	Assignment 5	Week 11	5%
9	Final Exam	Week 12	40%

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

Students can meet the faculty during advising hours or whenever the faculty is in the office.

Office Hours: 4 Hours/Week

Students also can email the faculty anytime during the weekdays

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Linux Administration – A Beginners Guide by Wale Soyinka, McGrawHill, 2012
Essential References Materials	
Electronic Materials	

Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Internet Connection because it's an online class
Technology Resources (AV, data show, Smart Board, software, etc.)	
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Virtual machine (Oracle VM VirtualBox or VMware Workstation Pro)

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Final Exam Evaluation	Peers	Verification of Marks
Course Report Verification	Quality Coordinator	Check List

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	