هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

2023
TP-153

Course Specification
(Bachelor)

Course Title:	Systems Administration and Maintenance
Course Code:	IT 432
Program:	Information Technology
Department:	Information Technology
College:	College of Computer and Information Sciences
Institution:	Majmaah University
Version:	2
Last Revision Date:	September 2022

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: 3 (3,0,1)					
2. Course type					
A.	☐University	☐College	☒ Department	☐ Track	☐Others
B.	☒ Required		☐ Elective		
3. Level/year at which this course is offered: (Level 8)					
4. Course general Description:					
This course presents an introduction to the administrative aspects of systems and their maintenance. Students will be introduced to at least two types of systems, preferably Windows and Linux based systems.					
5. Pre-requirements for this course (if any)**:**					
IT412					
6. Pre-requirements for this course (if any)**:**					
7. Course Main Objective(s):					
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. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	45
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	15
5.	**Others (specify)**	
Total		60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1				
1.2				
...				
2.0	**Skills**			
2.1	CLO1- Install, administrate and maintain operating systems	**S1**	Classroom Teaching and Lab Exercises	Lab Based Assignments, Quiz, Mid Exam, Final Exam
2.2	CLO2- Use techniques for troubleshooting and modifying operating systems	**S2**	Classroom Teaching and Lab Exercises	Lab Based Assignments, Quiz, Mid Exam, Final Exam
2.3	CLO3- Manage accounts on operating systems	**S4**	Classroom Teaching and Lab Exercises	Lab Based Assignments, Quiz, Mid Exam, Final Exam
2.4	CLO4- Configure and modify network services for operating systems	**S4**	Classroom Teaching and Lab Exercises	Lab Based Assignments, Quiz, Mid Exam, Final Exam

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
...				
3.0	**Values, autonomy, and responsibility**			
3.1				
3.2				
...				

C. Course Content

No	List of Topics	Contact Hours
1.	System Administration	2
2.	File System Organization	4
3.	Operating System Installation & configuration	6
4.	System Support and Maintenance, Application Installation & configuration (Windows)	6
5.	System Support and Maintenance, Application Installation & configuration (Linux)	6
6.	Server Administration & Management, User and Group Management	6
7.	Network Services (HTTP, SMTP, SSH, etc.)	2
8.	Network Command (Windows)	4
9.	Network Command (Linux)	4
10.	Server Processes	6
11.	Performance Monitoring (Linux)	4
12.	Resource and Site Management	6
13.	Performance Monitoring (Windows)	4
Total		**60**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	Week4, Week10	10%
2.	Exercise	Every week	30%
3.	Mid Term Exam	Week 8	20%

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
4.	Final Exam	Week 16	40%
5.			
...			

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Linux Administration , A Beginners Guide by Wale Soyinka, McGrawHill, 2012
Supportive References	
Electronic Materials	
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom and laboratory
Technology equipment (projector, smart board, software)	Data show and Smart Board
Other equipment (depending on the nature of the specialty)	PC or Laptop with Windows/Linux

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Indirect (Students)	CLO Survey
Effectiveness of Students assessment	Direct (Instructor)	Quiz, Mid exam, Assignments, Exercises, Final Exam and Indirect Survey
Quality of learning resources	Convener, instructors, HOD	Regular follow ups
The extent to which CLOs have been achieved	Instructor, TA	Performance in the exam for a particular CLO(s)
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	