



Course Specification

— (Bachelor)

Course Title: Introduction to Operating Systems

Course Code: 501352-3

Program: Bachelor of Computer Science

Department: Department of Computer Science

College: College of Computers and Information Technology

Institution: Taif University

Version: 1

Last Revision Date: 01-02-2024



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A. General information about the course:

1. Course Identification

1. Credit hours: (3)

2. Course type

A. University College Department Track Others

B. Required Elective

3. Level/year at which this course is offered: (5/3)

4. Course general Description:

The course introduces and provides fluency in Linux. Topics include shell commands for file system manipulation, file permissions, process and user management, installation, administration and development tools.

5. Pre-requirements for this course (if any):

501220-3

6. Co-requirements for this course (if any):

None

7. Course Main Objective(s):

Understand the Linux OS from a user's perspective.
Work on Linux OS as a user in both command-line and graphical modes.
Understand Linux OS as a system administrator in command-line mode.
Perform basic software development procedures in Linux OS.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> • 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	-
5.	Others (specify)	-
Total		45

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			
2.0	Skills			
2.1	Choose the relevant software (operating systems and applications) for personal and production environments either proprietary or open source.	S1	Lectures	Direct Assessment Tool Quizzes / Homework/Project/ Exams Indirect Assessment Tool Course Exit Survey
2.2	Work on Linux as a user in both command-line and graphical modes.	S1	Lectures	Direct Assessment Tool Quizzes / Homework/Project/ Exams Indirect Assessment Tool Course Exit Survey
2.3	Use command line to manage user, group, and privilege.	S1	Lectures	Direct Assessment Tool Quizzes / Homework/Project/ Exams Indirect Assessment Tool Course Exit Survey



Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.4	Use command to line to manage OS processes, services and, daemons.	S1	Lectures	Direct Assessment Tool Quizzes / Homework/Project/ Exams Indirect Assessment Tool Course Exit Survey
2.5	Write Linux commands to perform files/folders, users, and process management.	S1	Lectures	Direct Assessment Tool Quizzes / Homework/Project/ Exams Indirect Assessment Tool Course Exit Survey
3.0	Values, autonomy, and responsibility			

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Linux What is OS? Types of OS Advantage and disadvantage of OS Task and responsibilities of OS	3
2.	Linux Architecture Kernel System call File system	3
3.	Accessing the Command Line and Getting help in Linux	3
4.	Managing Files from the Command Line	6
5.	Creating, Viewing, and Editing Text Files	6



6.	Managing Local Linux Users and Groups	6
7.	Controlling Access to Files with Linux File System	6
8.	Monitoring and Managing Linux Process	6
9.	Controlling Services and Daemons	6
Total		45

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	HomeWorks/ Student Attendance Participation	Every Week	10%
2.	Quizzes	Week 4 & Week 12	10%
3.	Mid-Terms	Week 7	20%
4.	Final labs exam	Week 13	20%
5.	Final Examination	Week 16	40%

*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 in a Nutshell: A Desktop Quick Reference Sixth Edition ISBN-13: 978-0596154486 Operating Systems: Three Easy Pieces, ISBN-13: 978-1985086593
Supportive References	Linux Bible 9th Edition. ISBN-13: 978-1118999875
Electronic Materials	http://www.linux-tutorial.info/ . Online edition. The Linux Command Line by William Shotts. Online edition



Other Learning Materials	<p>https://tutorials.ubuntu.com/</p> <p>https://www.linuxtopia.org/online_books/linux_for_beginners_in dex.html</p> <p>https://www.edx.org/school/red-hat</p>
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2. Required Facilities and equipment

Items	Resources
<p style="text-align: center;">facilities</p> <p>(Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)</p>	<ul style="list-style-type: none"> A Lecture room appropriate for maximum 25 students with a personal computer, a data show and a smart board.
<p style="text-align: center;">Technology equipment</p> <p>(projector, smart board, software)</p>	<ul style="list-style-type: none"> Video projector / data show
<p style="text-align: center;">Other equipment</p> <p>(depending on the nature of the specialty)</p>	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	<ul style="list-style-type: none"> Students Faculty members Coordinator Council Curriculum Committees 	<ul style="list-style-type: none"> Course exit survey Feedback from Faculty members Feedback from Course Coordinator Feedback from council Feedback from Curriculum Committees
Effectiveness of Students assessment	<ul style="list-style-type: none"> Students Faculty members Coordinator Council Curriculum Committees 	<ul style="list-style-type: none"> Course exit survey Feedback from Faculty members Feedback from Course Coordinator Feedback from council Feedback from Curriculum Committees
Quality of learning resources	<ul style="list-style-type: none"> Students Faculty members Coordinator Council Curriculum Committees 	<ul style="list-style-type: none"> Course exit survey Feedback from Faculty members Feedback from Course Coordinator Feedback from council Feedback from Curriculum Committees



Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved	<ul style="list-style-type: none"> Students Faculty members Coordinator Council Curriculum Committees 	<ul style="list-style-type: none"> Course exit survey Feedback from Faculty members Feedback from Course Coordinator Feedback from council Feedback from Curriculum Committees
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	CS council
REFERENCE NO.	Meeting #11
DATE	07/03/2024

