



Course Specifications

Course Title:	Introduction to Operating Systems
Course Code:	501352-3
Program:	Bachelor in Computer Science
Department:	Department of Computer Science
College:	College of Computers and Information Technology
Institution:	Taif University

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A. Course Identification

1. Credit hours:	3 Credit Hours
2. Course type	
a.	University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b.	Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered:	Level 7/3
4. Prerequisites for this course (if any):	
	501220-3
5. Co-requisites for this course (if any):	
	None

6. Mode of Instruction (mark all that apply)

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

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	40
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	40

B. Course Objectives and Learning Outcomes

<p>1. Course Description</p> <p>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.</p>
<p>2. Course Main Objective</p> <p>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.</p> <ul style="list-style-type: none"> Perform basic software development procedures in Linux OS.



3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
2	Skills :	
2.1	Choose the relevant software (operating systems and applications) for personal and production environments either proprietary or open source.	S1
2.2	Work on Linux as a user in both command-line and graphical modes.	S1
2.3	Install Linux and to perform system administration tasks.	S1
2.4	Understand and write shell scripts.	S1
2.5	Write Linux commands to perform files/folders, users, and process management.	S1
3	Values:	

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	4
2	Linux Architecture Kernel System call File system	5
3	Accessing the Command Line and Getting help in Linux	4
4	Managing Files from the Command Line	4
5	Creating, Viewing, and Editing Text Files	4
6	Managing Local Linux Users and Groups	4
7	Controlling Access to Files with Linux File System	4
8	Monitoring and Managing Linux Process	4
9	Controlling Services and Daemons	7
Total		40



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		
2.0	Skills		
2.1	Specify basic concepts of Linux architecture and commands.	Lectures	Direct Quizzes / Homework Exams Indirect Course Exit Survey
2.2	Use command line to create/edit/delete files and folders.	Lectures	Direct Quizzes / Homework Exams Indirect Course Exit Survey
2.3	Use command line to manage user, group, and privilege.	Lectures	Direct Quizzes / Homework Exams Indirect Course Exit Survey
2.4	Use command line to manage OS processes, services and daemons.	Lectures	Direct Quizzes / Homework Exams Indirect Course Exit Survey
2.5	Write Linux commands to perform files/folders, users, and process management.	Lectures	Direct Assessment Tool Homeworks/exams Indirect Assessment Tool Course Exit Survey
3.0	Values		

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	HomeWorks /Student Participation-Attendance	Every Week	15%
2	Quizzes	Week 3 and 8	15%
3	Mid-Term	Week 5	20%
4	Final Labs Exam	Week 9	10%
5	Final Examination	Week 10	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:

6 hours per week in predetermined office hours

Consultation by appointment (as needed)

Through emails

- Through BlackBoard Learn

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	Linux Bible 9th Edition. ISBN-13: 978-1118999875
Essential References Materials	Linux in a Nutshell: A Desktop Quick Reference Sixth Edition ISBN-13: 978-0596154486 <ul style="list-style-type: none"> • Operating Systems: Three Easy Pieces, ISBN-13: 978-1985086593
Electronic Materials	http://www.linux-tutorial.info/ . Online edition. The Linux Command Line by William Shotts. Online edition
Other Learning Materials	https://tutorials.ubuntu.com/ https://www.linuxtopia.org/online_books/linux_for_beginners_index.html <ul style="list-style-type: none"> • https://www.edx.org/school/red-hat

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classroom with 30 chairs <ul style="list-style-type: none"> • Lab with 15 PCs and required software tools installed (Ubuntu or Red Hat Linux)
Technology Resources (AV, data show, Smart Board, software, etc.)	Video projector / data show <ul style="list-style-type: none"> • White board
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	



G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of Teaching	Students	Students surveys and Students course evaluation
Improvement of Teaching	Course Coordinator	deficiencies based on the student Evaluation, faculty input, course file, and program assessment
Verifying Standards of Student Achievement	<ul style="list-style-type: none"> Curriculum Committee 	<ul style="list-style-type: none"> Review CAF (Course assessment file) Alumni surveys. Periodic exchange and remarking of tests or a sample of assignments with staff at another

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	CS council
Reference No.	Meeting #12
Date	23-10-1443

