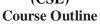


# Daffodil International University Department of Computer Science and Engineering (CSE)





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<b>Course Code:</b>	CSE 324					
<b>Course Title:</b>	Operating Systems	s Lab				
Program:	B.Sc. in CSE					
Faculty:	Faculty of Science	and 1	Information 7	Techno	ology (FSIT)	
Semester:	Summer	Summer Year: 2020				
Credit:	1.00		Contact Ho	ur:	3.00	
Course Level:	L3T2 <b>Prerequisite:</b> CSE 213, CSE 231					E 231
<b>Course Category:</b>	Core Engineering					
<b>Instructor Name:</b>	Most. Hasna Hena					
<b>Designation:</b>	Assistant Professor					
Email:	hena.cse@diu.edu.bd					
Office Address:	Room-405, CSE Building, DIU					
<b>Class Hours:</b>	Section Class Day Class Hours Classroom					
<b>Google Classroom</b>					•	
Code:						

#### 1. Course Rationale

The course aims to explore the importance of the operating system, its function and different techniques used by the operating system to achieve its goals as resource manager. The course also explores how application interacts with the operating system and how the operating systems interact with the machine. Also, the course shed light on some of the existing operating systems and how the topics taught in the course are applied in these systems. Some topics in the course are implemented by witting the programs to practically know how.

#### 1.1. Course Objective

- 1. To introduce Basic Linux general purpose Commands
- 2. To learn network Linux commands.
- 3. To learn shell script
- 4. To learn different programming language in Linux editor environment and implement different Operating system algorithm
- 5. To learn about file management and different types of permission setup.
- 6. To understand how system processes work and how to manage them
- 7. To work with system logs and remote connection tools

# 1.2. Course Outcomes (CO's)

CO1	Experiment with Unix commands and shell programming.
CO2	Able to build shell program for process and file system management with system calls.
CO3	Able to implement and analyse the performance of different algorithm of Operating Systems like CPU scheduling algorithm, page replacement algorithms, deadlock avoidance, detection algorithm and so on.
CO4	Able to design and develop a course project that can have positive impact on environment or society or mankind.

# 1.3. Program Outcomes (PO's)

Program Outcomes are reported in Appendix-I.

# **1.4. CO-PO** Mapping [attainment level used for COs from 1(weak)-3(strong) correlation]

PO's	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO's												
CO1	3											
CO2		3										
CO3		2	3	3								
CO4		2	3	3					1		1	

# 1.5. CO Assessment Scheme

Assessment Task		Mark (Total=100)			
	CO1	CO2	CO3	CO4	
Attendance					10
Report/Project	0	0	0	25	25
Lab Performance	7	10	8	-	25
Lab Final	10	15	15	-	40
Total Mark	17	25	23	25	100

# 2. Strategies and approaches to learning

### 2.1. Teaching and Learning Activities (TLA)

TLA1	Demonstrations once a week according to the university policy using multimedia of different topics.
TLA2	Active discussion in class regarding efficient designing and solving of the logical and mathematical problems.
TLA3	Group discussion and presentation regarding diverse problems and corresponding lectures.
TLA4	Evaluation of class performances to reach each student in a class for every topic.

#### 3. Course Schedule and Structure

### 3.1. Textbook

Unix Shell Programming- Yashavant P. Kanetkar

#### 3.2. Reference Books

Teach Yourself Unix Shell Programming in 14days-Kamran Husain

#### 3.3. Course Plan/Lesson Plan

Lesson/ Labs	Торіс	Teaching and Learning Activities (TLAi)	Textbook & Video Reference	Related CO's
1	Introduction to Linux, Linux Installation,	TLA1	Yashavant:	CO1
	Introduction to Shell, Creating user account		ch 1	
2	Course Project discussion and group formation –	TLA3		CO4
	list of projects, team formation, project plan and			
	deliverables with presentation			
3	Introduction to Linux tools- Linux files,	TLA1	Yashavant:	CO1
	Directories, Root, File Permissions, Working with		ch 2	
	files and directories, Disk related commands			
4	Introduction to Shell Scripts- Shell programming,	TLA1	Yashavant:	CO1
	Shell Variables, Shell Keywords, Write simple	TLA2	ch 2, 13	
	Shell program	TLA4		
5	Decision making and Loop control structure	TLA2	Yashavant: ch 10	CO1
6	Review on previous topics and Functions	TLA2		CO2
		TLA4		
7	Mid Term We	eek		
8	Shell Administration Adding and removing users,	TLA2	Yashavant:	CO1,
	Daily administrative works, file management	TLA4	ch 2, ch 15	CO2
9,10	Processes in Linux, Process Scheduler, Deadlock	TLA2		CO3
	avoidance			
11	Disk management, Monitoring system and	TLA2	Yashavant:	CO2
	Ensuring system		ch 15	
12	Final Team Project Presentation	TLA1		CO4
	-	TLA3		
13	(LAB FINAL)			

#### 4. Assessment Methods

# 4.1. Grading System

Numerical Grade	Letter Grade	Grade Point
80-100	A+	4.00
75-79	A	3.75
70-74	A-	3.50
65-69	B+	3.25
60-64	В	3.00
55-59	В-	2.75
50-54	C+	2.50
45-49	С	2.25
40-44	D	2.00
Less than 40	F	0.00

### 5. Additional Support for Students

• Student Portal:

http://studentportal.diu.edu.bd/

• Academic Guidelines

https://daffodilvarsity.edu.bd/article/academic-guidelines

• Rules and Regulations of DIU

https://daffodilvarsity.edu.bd/article/rules-and-regulation

• Career Development Center:

https://cdc.daffodilvarsity.edu.bd/

• For general queries:

http://daffodilvarsity.edu.bd/