

ASIAN SCHOOL OF TECHNOLOGY, KHORDHA
ACADEMIC LESSON PLAN (SUMMER-2026)

TH – 1 OPERATING SYSTEMS (COURSE CODE- CSEPC 202)

Department: CSE		Semester:4 th , Name of Faculty : Ashish kumar Panda
Subject: Operating System (OS)	No. of days/ week Class allotted: 3	EffectiveFromDate:05.01.2026 TO 18-04-2026
		No.ofWeek-15
		Topic to be Covered:
Week	Class Day	Theory
1 st	1st	UNIT1:INTRODUCTION
	2nd	1.1ObjectivesandExplainfunctions of operating system.
		1.1 Unix /Linux Architecture
	3rd	1.2Evolution of Operating system
	4th	1.3Structureofoperating system.
		1.4 System Programs
2 nd	1st	1. Doubt Clearing class 2. Assignment
	2nd	UNIT2:PROCESS MANAGEMENT
	3rd	Process concept • Process control • Interacting processes • Inter process messages.
	4th	2.2ImplementationissuesofProcesses.
3 rd	1st	2.3Processsscheduling,jobscheduling.
	2nd	2.4Process scheduling
	3rd	2.5Principle of concurrency, types of scheduling.
	4th	1. Doubt Clearing class 2. Assignment 3. Class test
4 th	1st	UNIT3:MEMORY MANAGEMENT
	2nd	3.1MemoryallocationTechniques
	3rd	3.1Contiguousmemoryallocation
	4th	3.1.2non-contiguousmemory allocation
5 th	1st	3.2Swapping
	2nd	3.3Paging
	3rd	3.1.1Segmentation
	4th	3.1.2Virtualmemoryusingpaging,
6 th	1st	3.4Demand paging ,page fault handling.
	2nd	1. Doubt Clearing class Assignment
		UNIT 4: FILE MANAGEMENT
	4th	6.1concept of a File

9 th	1st	6.1. Access methods
	2nd	6.2.2 Directory structure
	3rd	6.3 file system mounting
	4th	6.4 file sharing and protection.
	1st	6.5 file system structure and implementation.
	2nd	6.6 Directory implementation
		6.7 Free space Management
		6.8 efficiency and performance
		6.9 different types of file systems
	3rd	UNIT5 :I/O SYSTEM
10 th	4th	5.1 mass storage structure
	1st	5.1 disk structure
	2nd	5.1.2 disk attachment
	3rd	5.1.3 disk scheduling algorithms
11 th	4th	5.2 swap space management
	1st	5.2. RAID TYPES – RAID 0 , RAID 1, RAID-5
	2nd	4.2.3 I/O Schedule
	3rd	4.2.3 I/O Device handlers.
12 th	4th	4.3 SPOOLING.
	1st	1. Doubt Clearing class 2. Class test 3. Assignment
	2nd	UNIT 6: DEADLOCKS
	3rd	6.1 Concept of deadlock.
13 th	4th	6.2 System Model
	1st	6.3 Dead Lock prevention
	2nd	6.4 the o strich algorithm
	3rd	6.5 Deadlock detection
14 th	4th	6.6 Recovery & Prevention
	1st	6.6.1 Explain Bankers Algorithm & Safety Algorithm
		UNIT 7: OS security
15 th		7.1 authentication
		7.2 access control
		7.3 access rights
		7.4 system logs
		Previous Year Question Discussions

Ashish Kumar Panda
Signature of Faculty

ASIAN SCHOOL OF TECHNOLOGY, KHORDHA
ACADEMIC LESSON PLAN (SUMMER-2026)

TH – 2 DATABASE MANAGEMENT SYSTEMS (COURSE CODE- CSEPC 204)

Department: CSE		Semester:4 th ,Name of Faculty: Subash Ch. Baliarsingh
Subject: Database Management System (DBMS)	No. of days/ week Class allotted: 3	EffectiveFromDate:05.01.2026 TO 18-04-2026
		No.ofWeek-15
		Topic to be Covered:
Week	Class Day	Theory
1 st	1st	UNIT1:BASICCONCPETSOF DBMS
	2nd	1.1PurposeofdatabaseSystems
	3rd	1.2ExplainDataabstraction
	4th	1.3Database users
2 nd	1st	1.4Datadefinition language
	2nd	1.5Data Dictionary
		1.6Data Models(Hierarchical, Network, Relational),
	3rd	1.7 Advantages and Disadvantages of DBMS
	4th	UNIT2:E R MODELS
3 rd	1st	2.1 Data independence
	2nd	2.2 Entityrelationshipmodels
	3rd	2.3 EntitysetsandRelationshipsets
	4th	2.4 Explain Attributes
4 th	1st	2.5 Mappingconstraints
	2nd	2.6 E-RDiagram
	3rd	2.7 Relational model
	4th	2.8 Hierarchicalmodel
5 th	1st	2.9 Network model
	2nd	1. Doubt Clearing class Assignment Class Test
	3rd	UNIT3:RELATIONAL ALGEBRA
	4th	3.1 Relational algebra
	1st	3.2 Differentoperatorsselect
6 th	2nd	3.2.1 project,join,simpleExamples
		3.3Define DDL, DML
		3.4SQL Queries: create , alter , drop. Insert delete,
		3.5Advanced queries: filtering , sorting , aggregate funtions
		3.6Joins: inner, outer ,left, right and cross joins
	3rd	1. Doubt Clearing class Assignment
	4th	UNIT4:NORMALIZATIONINRELATIONAL SYSTEM
	1st	4.1 Functional Dependencies
	2nd	4.2 Losslessjoin

7 th	3rd	4.3Importance of normalization
	4th	4.4CompareFirst second and third normal forms
8 th	1st	4.5ExplainBCNF
		4.6 Decomposition of Relations
	2nd	1. Doubt Clearing class Assignment
	3rd	UNIT5: Database Transaction Management and Concurrency Control:
	4th	5.1Elementaryidea of Query language
9 th	5th	5.2 Transactions: Properties (ACID),
		5.3 States, and Schedules
10 th	6th	5.4 serializability
		5.5Locks
11 th	7th	5.6.1LiveLock
		5.7.2DeadLock
12th	1st	5.8QueriesinSQL
	2nd	5.8Simplequeriesto create
	3rd	5.9.1Update
	4th	5.9.2insertinSQL
13th -14th	1st	1. Doubt Clearing class Assignment Class Test
	2nd	UNIT6: Database Administration and Security Management:
	3rd	6.1 Management in DBMS
	4th	6.2 Privileges and Roles,
15 th	1st	6.3 Backup and Recovery
	2nd	6.4 Database Security:
		6.5 Authorization, and. Data Encryption
	3rd	1. Doubt Clearing class Assignment
	1st	Revision

Subash ch. Beliar Singh

Signature of Faculty

ASIAN SCHOOL OF TECHNOLOGY, KHORDHA
ACADEMIC LESSON PLAN (SUMMER-2026)

TH – 3 COMPUTER NETWORKS (COURSE CODE- CSEPC 206)

Department: CSE		Semester:4 th , Name of Faculty: DHANESWAR PANDA
Subject: Computer Network (CN)	No.of days/ week Class allotted: 3	Effective From Date: 05.01.2026 to 18-04-2026
		No. of Week-15
		Topic to be Covered:
Week	Class Day	Theory
1 st	1st	UNIT 1: NETWORK & PROTOCOL
	2nd	1.1 introduction to computer networks
	3rd	1.2 Networks models
		1.3 OSI reference model
	4th	1.3 Protocol & Architecture, Standards, OSI, TCP/IP
2 nd	1st	1. Doubt Clearing class 2. Assignment
	2nd	UNIT 2: Physical Layer
	3rd	2.1 Transmission Media–Principles and issues
	4th	2.2 Wired Media–Coaxial, UTP, STP, Fiber Optic
3 rd	1st	2.3 Cables -Single Mode & Multimode.
	2nd	2.4 Wireless Media–HF, VHF, UHF, Microwave
	3rd	2.4 WIFI 802.11 a/b/g/n/ac
	4th	2.4.2 Cellular Data-2G, 3G, 4G, & 5G
		2.4.3 Network topologies
4 th	1st	1. Doubt Clearing class 2. Assignment Class test
	2nd	UNIT 3: Data Link Layer:
	3rd	3.1 Design issues
	4th	3.2 DLL protocols (Ethernet, WLAN, Bluetooth)
5 th	1st	3.3 Switching Techniques, VLAN
	4th	1. Doubt Clearing class 2. Assignment
6 th	1st	UNIT 4: Network Layer:
	2nd	4.1 Design issues
	3rd	4.2 Internet Protocols (IPv4 & IPv6)
	4th	4.3 Routing–principles and issues
7 th	1st	4.4 Routing Algorithms: Distance-vector, Link-state
	2nd	4.5 Routing Protocols: RIP, OSPF
	2nd	1. Doubt Clearing class 2. Assignment
	3rd	UNIT 5: Transport Layer:
	4th	5.1 Design issues,
		5.1 UDP & TCP
	4th	1. Doubt Clearing class 2. Assignment
11 th	1st	UNIT 6: Application Layer:
	2nd	6.1 Design Issues
	3rd	6.2 DNS
	4th	6.3 DHCP

12 th	1st	6.4 Bridges, Hub, Switch
	2nd	6.5 SNMP
	3rd	6.5. FTP&TFTP
	4th	6.6 SMTP
		6.7 WWW
		6.8 Telnet & SSH
13 TH -14 th	1st	1. Doubt Clearing class 3. Assignment Class test
	2nd	UNIT 7: Network Devices:
	3rd	7.1 NIC
	4th	7.2 HUB
15 th	1st	7.3 Switch-Core ,Distribution &Access Switches
	2nd	7.4 Router,
	3rd	7.5 Wi Fi Access-Point & Wireless LAN Controller
	4th	1. Doubt Clearing class 3. Assignment
	2nd	Revision

Pheneswar Panda
Signature of Faculty

ASIAN SCHOOL OF TECHNOLOGY, KHORDHA

ACADEMIC LESSON PLAN (SUMMER-2026)

TH: 4(A)- MICROPROCESSOR AND MICROCONTROLLER(COURSE CODE-CSEPE 202)

Discipline: COMPUTER SCIENCE AND ENGINEERING	Semester:4 TH	Name of the Teaching Faculty:ARUNA SATAPATHY
Subject:TH:4(A)- MICROPROCESSOR AND MICROCONTROLLER	No.ofdays/per week class allotted: 3	Semester from : 05 th Jan 2026 to 18 th April 2026 NoofWeeks:15
WEEK	CLASS DAY	THEORY TOPICS
1st	1st	Introduction to Microprocessor • Evolution of Microprocessors
	2nd	• Specific features of Microprocessors.
	3rd	• Application in our daily life (a few examples)
2nd	1st	Internal architecture of a microprocessor (using block Diagram • Explanation of each block in brief
	2nd	• Concept of bus structure,
	3rd	• Register-to-register transfer
3rd	1st	• Communication with I/O and memory (This part can be explained using the specific microprocessors like 8085 or 8086/8088).
	2nd	• Pin details of 8085 and 8086/8088 CPU and their functions in brief
	3rd	Continue..
4th	1st	Addressing modes in general (may be limited to 8085 and 8086/8088 CPU) • Instruction cycles.
	2nd	• Instruction set
	3rd	• timing diagram (may be limited to 8085 and 8086/8088 cpu)
5th	1st	Concept of assemblers and compilers
	2nd	Interfacing of Memory and I/O devices • Concept of address space, address/data bus Demultiplexing.
	3rd	• Address and data bus buffering, address decoding,
6th	1st	• I/O concepts,
	2nd	• Memory interfacing concept of I/O mapped I/O and memory mapped I/O
	3rd	• Interrupts - Types of interrupts, Hardware and software data transfer schemes - Synchronous, asynchronous and interrupt driven
7th	1st	Class test
	2nd	Assembly Language Programming:

		(This part may be limited to the use assembly language of 8085 or 8086/8088 CPU) • Example for register to register, register to memory, memory to register.
	3rd	block of data movement from one area of memory to another
8th	1st	merging of two blocks of data, data block exchange.
	2nd	• Examples of arithmetic addition, subtraction.
	3rd	Examples of arithmetic multiplication and division.
9th	1st	• Examples of searching and sorting (simple)
	2nd	• Examples using of look up tables
	3rd	• Use subroutines and delay programme.
10th	1st	Peripheral chips and their Interfacing: • Functional description of 8255, 8253
	2nd	• Functional description of 8251, 8257
	3rd	• Functional description of 8237 and 8259.
11th	1st	• Interfacing of these chips with some standard CPU.
	2nd	• Simple assembly language programme to explain the function of these chips
	3rd	continue
12th	1st	Special Purpose Interfacing Devices and their Interfacing
	2nd	• Keyboard interfacing
	3rd	• 7 segment and dot matrix display interfacing,
13th	1st	• A/D and D/A interfacing,
	2nd	• Stepper motor interfacing
	3rd	Class test
14th	1st	Microcontroller
	2nd	• Introduction to 8051 Microcontroller
	3rd	• 8051 Instruction Set
15th	1st	8051 Programming.
	2nd	• Hardware features of 8051
	3rd	• Example of 8051 Interface

Aruna Satapathy
Signature of Teaching faculty

ASIAN SCHOOL OF TECHNOLOGY, KHORDHA
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TH – 5B MULTIMEDIA TECHNOLOGY (COURSE CODE- CSEPE 204)

Department: CSE		Semester:4 th , Name of Faculty : Smruti Rekha Sethi
Subject: MULTIMEDIA TECHNOLOGIES (MT)	No. of days/ week Class allotted: 3	Effective From Date: 05.01.2026 TO 18-04-2026
		No. of Week-15
		Topic to be Covered:
Week	Class Day	Theory
1 ST – 4 TH	1st	UNIT1: Introduction to Multimedia
	2nd	1. Multimedia Foundation and Concepts.
		1.1 Multimedia Hardware / software
	3rd	1.2 Multimedia Operating Systems
	4th	1.3 Multimedia Communication System
5 th – 8 TH	1st	1. Doubt Clearing class 2. Assignment
	2nd	UNIT2: Basic Compression Techniques
	3rd	2.1 Video and Audio Data Compression Techniques
	4th	2.2 Example algorithms/standards:
9 TH -11 TH	1st	2.3 Huffman
	2nd	2.4 RLE, JPEG, MPEG, MP3, MP4
	3rd	2.5 LZMA, FLAC, ALAC, ITUG.722, H.261, H.265
	4th	1. Doubt Clearing class 2. Assignment 3. Class test
12 th	1st	UNIT3: Content Development and Distribution
	2nd	3.1 Desk top publishing
	3rd	3.1 CorelDraw
13 TH -15 TH	1st	3.2 Photoshop
	2nd	3.3 PageMaker
	3rd	3.4 Multimedia Animation & Special Effects
	4th	3.5 2D/3D Animation Flash)
	2nd	1. Doubt Clearing class Assignment
		UNIT 4: Introduction to Digital Imaging Class test
	4th	4.1 Basics of Graphic
	1st	4.2. Graphic Design and Use of Digital Technology
	2nd	4.3. Definition of Digital Images
	3rd	4.4 Digital Imaging in Multimedia
		Previous Year Question Discussions

Smruti Rekha Sethi
 Signature of Teaching Faculty