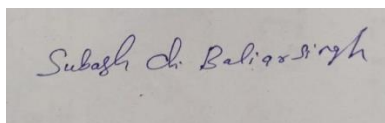


ASIAN SCHOOL OF TECHNOLOGY, KHORDHA
ACADEMIC LESSON PLAN (WINTER-2026)
TH-1 PROGRAMMING WITH C++ (COURSE CODE: CSEPC 201)

Discipline: CSE	Semester: 3rd, Name of Faculty: SUBASH CH. BALIARSINGH		
Subject: Programming With C++	No. of days/ week Class allotted: 3periods/week	NO OF PERIODS AVAILABLE:45	Effective From Date:02.07.2026 to 05.11.2026
			No of week-15
			Topic to be Covered:
Week	Class Day		Theory
1st	1st	1	UNIT1: INTRODUCTION TO OBJECT ORIENTED PROGRAMMING:
	2nd	1	User defined types in C++
	3rd	1	structures, Unions
2nd	4th	1	Polymorphism
	5th	1	Encapsulation
	6th	1	Getting started with C++ syntax,
	7th	1	data- type, variables, strings
3rd	8th	1	Functions, default values in functions
	9th	1	Recursion
	10th	1	Namespaces, operators, flow control,
4th	11th	1	Arrays
	12th	1	Pointers
	13th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
5th	14th		UNIT 2: ABSTRACTION MECHANISM:
	15th	1	Classes, private, public
	16th	1	Constructors, destructors
6th	17th	1	Member data, member functions
	18th	1	Inline function, friend functions,
	19th	1	Static members, and references
7th	20th	1	Inheritance: Class hierarchy, derived classes, single inheritance
	21st	1	Multiple, Multilevel, hybrid inheritance
	22nd	1	Role of virtual base class, constructor and destructor execution
8th	23rd	1	Base initialization using derived class constructors
	24th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment 4. Class Test 1
			UNIT 3: POLYMORPHISM:
9th	25th	1	Binding, Static binding
	26th	1	Dynamic binding
	27th	1	Static polymorphism: Function Overloading, Ambiguity in
	28th	1	function overloading
10th	29th	1	Dynamic polymorphism: Base class pointer
	30th	1	Object slicing, late binding
	31st	1	Method overriding with virtual functions

11 th		1	Pure virtual functions
	32 nd	1	Abstract classes
	33 rd	1	1. Doubt Clearing class 2. Class test 2 3. Assignment
12 th	34 th		UNIT 4: OPERATOR OVERLOADING
	35 th	1	This pointer, applications of this pointer
	36 th	1	Operator function, member and non-member operator function
13 th	37 th	1	Operator overloading
	38 th	1	I/O operators.
	39 th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
14 th	40 th	1	UNIT 5: EXCEPTION HANDLING
	41 st	1	Exception handling: Try, throw, and catch
	42 nd	1	Exceptions and derived classes,
15 th	43 rd	1	Function exception declaration
	44 th	1	Unexpected exceptions
	45 th	1	1. Doubt Clearing class 2. Assignment

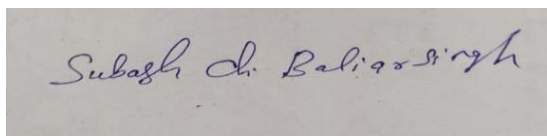


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ASIAN SCHOOL OF TECHNOLOGY, KHORDHA
ACADEMIC LESSON PLAN (WINTER-2026)
TH-2 PROGRAMMING WITH PYTHON (COURSE CODE: CSEPC 203)

Discipline: CSE	Semester: 3 rd , Name of Faculty: SUBASH CH. BALIARSINGH		
Subject: Programming With Python	No. of days/ week Class allotted: 3periods/week	No. of periods available: 45	Effective From Date:02.07.2026 to 05-11-2026
			No Of Weak-15
			Topic to be Covered:
Week	Class Day		Theory
1 st	1 st	1	UNIT1: INTRODUCTION TOPYTHON:
	2 nd	1	Features and Applications
	3 rd	1	Applications Setting Up the Python Environment (Python Installation, IDEs)
2 nd	4 th	1	Python Syntax: Variables
	5 th	1	Python Syntax: Data Types
	6 th	1	Python Syntax: Operators Writing
3 rd	7 th	1	Executing, and Debugging Python Scripts
	8 th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
	9 th	1	UNIT 2: CONTROL STRUCTURE AND FUNCTIONS:
4 th	10 th	1	Conditional Statements: if, else, Elif
	11 th	1	Conditional Statements: if, else, Elif
	12 th	1	Loops: for, while
5 th	13 th	1	Nested Loops Functions: Defining, Calling, and Scope of Variables
	14 th	1	Introduction to Lambda Functions
	15 th	1	Introduction to Recursion
6 th	16 th	1	1. Doubt Clearing class 2. Class test 1 3. Assignment
	17 th	1	UNIT 3: DATA STRUCTURES IN PYTHON:
	18 th	1	Lists, Tuples, Sets, and Dictionaries
7 th	19 th	1	Operations and Applications
	21 st	1	List Comprehensions and Dictionary
	22 nd	1	Comprehensions Working with Strings:
8 th	23 rd	1	Methods and Manipulation
	23 rd	1	Introduction to Python's Collections Module
	24 th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
9 th		1	UNIT 4: FILE HANDLING AND MODULES:
	25 th	1	File Operations, Reading, Writing, and Appending Files
	26 th	1	Working with CSV and JSON Files
10 th	27 th	1	Working with CSV and JSON Files
	28 th	1	Python Modules: Built-In Modules (e.g., math, os, datetime)
	29 th	1	Creating and Using Custom Modules

11 th	30 th	1	1. Doubt Clearing class 2. Class test 2 3. Assignment
	31 st	1	UNIT 5: OBJECT-ORIENTED PROGRAMMING(OOP) WITH PYTHON:
		1	Understanding Classes and Objects Concepts of Encapsulation
12 th	32 nd	1	Inheritance and Polymorphism
	33 rd	1	Working with Magic Methods
	34 th	1	Operator Overloading
	35 th	1	Operator over writing function
13 th	36 th	1	Exception Handling in Python
	37 th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
	38 th	1	UNIT 5: ADVANCE PYTHON AND APPLICATIONS:
14 th	39 th	1	Introduction to Libraries: Num Py, Pandas,
	40 th	1	Mat plot lib Basics of Web Scraping
	41 st	1	Using requests and Beautiful Soup
	42 nd	1	Scripting for Automation: Working with os and shutil Modules
15 th	43 rd	1	Mini-Project: Developing a Python Script for a Real-World Problem
	44 th	1	Mini-Project: Developing a Python Script for a Real-World Problem
	45 th	1	1. Doubt Clearing class 2. Assignment

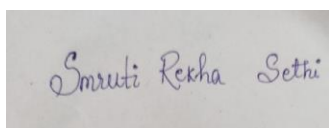


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ASIAN SCHOOL OF TECHNOLOGY, KHORDHA
ACADEMIC LESSON PLAN (WINTER-2026)
TH 3- DATA STRUCTURE (COURSE CODE: CSEPC 205)

Discipline: CSE		Semester: 3 rd ,	Name of Faculty: MISS.SMRUTI REKHA SETHI
Subject: Data Structure (DS)	No. of days/ week Class allotted: 3periods/week	No of periods available: 45	Effective Semester fromDate:02.07.2026 To 05.11.2026
			NO OF WEEK-15
Week	Class Day		Theory
1 st	1 st	1	UNIT1: INTRODUCTION TO DATA STRUCTURES:
	2 nd	1	Basic Terminology
	3 rd	1	Classification of Data Structure
2 nd	4 th	1	Operations on Data Structure
	5 th	1	Asymptotic
	6 th	1	Worst-case analysis of algorithms.
3 rd	7 th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
	8 th	1	UNIT 2: LINEAR DATA STRUCTURES:
	9 th	1	Stacks-Introduction to Stacks
4 th	10 th	1	Array Representation of Stacks
	11 th	1	Operations on a Stack
	12 th	1	Applications of Stacks Infix-to-Postfix Transformation
5 th	13 th	1	evaluating Postfix Expressions
	14 th	1	UNIT 3: QUEUES:
	15 th	1	Introduction to Queues
6 th	16 th	1	Array Representation of Queues
	17 th	1	Operations on a Queue
	18 th	1	Types of Queues-Dequeue
7 th	19 th	1	Circular Queue
	20 th	1	Applications of Queues-Round Robin Algorithm.
	21 st	1	1. Doubt Clearing class 2. Class test 1 3. Assignment
8 th	22 nd	1	UNIT 4: LINKED LISTS
	23 rd	1	Singly Linked List
	24 th	1	Representation in Memory
9 th	25 th	1	Operations on a Single Linked List
	26 th	1	Circular Linked Lists
	27 th	1	Doubly Linked Lists
10 th	28 th	1	Linked List Representation and Operations of Stack
	29 th	1	Linked List Representation and Operations of Queue.

	30 th	1	1. Doubt Clearing class 2. Class test 2 3. Assignment
11 th	31 st	1	UNIT 5: NON-LINEAR DATA STRUCTURES
	32 nd	1	Trees-Basic Terminologies
	33 rd	1	Definition and Concepts of Binary Trees
12 th	34 th	1	Representations of a Binary Tree using Arrays and Linked Lists
	35 th	1	Operations on a Binary Tree-Insertion
	36 th	1	UNIT 6: GRAPHS:
13 th	37 th	1	Deletion
	38 th	1	Traversals
	39 th	1	Types of Binary Trees
14 th	40 th	1	Graph Terminologies
	41 st	1	Representation of Graphs- Set
	42 nd	1	Linked
15 th	43 rd	1	Matrix
	44 th	1	Graph Traversals
	45 th	1	1. Doubt Clearing class 2. Assignment



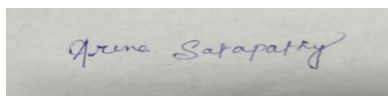
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ASIAN SCHOOL OF TECHNOLOGY, KHORDHA
ACADEMIC LESSON PLAN (WINTER-2026)

TH 4- DIGITAL ELECTRONICS AND COMPUTER ORGANIZATION (COURSE CODE: CSEPC 207)

Discipline: CSE		Semester: 3 rd ,	Name of Faculty: MISS. ARUNA SATPATHY
Subject: Digital Electronics and Computer Organization	No. of days/ week Class allotted: 3periods/ week	No of periods available: 45	Semester FromDate:02.07.2026 To 05.11.2026
			No Of Week-15
Week	Class Day		Theory
1 st	1 st	1	UNIT1: INTRODUCTION TO DIGITAL ELECTRONICS:
	2 nd	1	Difference Between Analog and Digital Signals
	3 rd	1	Number Systems: Binary, Octal, Decimal, and Hexadecimal
2 nd	4 th	1	Conversion Between Number Systems
	5 th	1	Binary Arithmetic
	6 th	1	Boolean Algebra: Basic Operations
3 rd	7 th	1	Boolean Algebra: Laws, and Simplification
	8 th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
	9 th	1	UNIT 2: LOGIC GATES AND CIRCUITS:
4 th	10 th	1	Logic Gates: AND, OR, NOT, NAND, NOR
	11 th	1	Logic Gates: OR, XNOR
	12 th	1	Design and Simplification of Logic Circuits Using Boolean Algebra
5 th	13 th	1	Karnaugh Maps (K-Maps) for Simplification
	14 th	1	Practical Applications of Logic Gates in Real-World Circuits
	15 th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
6 th	16 th	1	UNIT 3: COMBINATIONAL AND SEQUENTIAL CIRCUITS:
	17 th	1	Combinational Circuits: Multiplexers, Demultiplexers
	18 th	1	Encoders, and Decoders
7 th	19 th	1	Sequential Circuits: Flip-Flops (SR, JK, D, T)
	20 th	1	Sequential Circuits: Flip-Flops (SR, JK, D, T) and Their Applications
	21 st	1	Counters: Synchronous and Asynchronous Counters
8 th	22 nd	1	Registers and Shift Registers: Types and Uses
	23 rd	1	1. Doubt Clearing class 2. Class test 1 3. Assignment
	24 th	1	UNIT 4: FUNDAMENTAL OF COMPUTER ORGANIZATION:
9 th	25 th	1	Basic Structure of a Computer: CPU, Memory, Input/Output Devices

	26 th	1	Instruction Cycle: Fetch, Decode
	27 th	1	Execute Memory Organization: Types of Memory (RAM, ROM, Cache, Virtual Memory)
10 th	28 th	1	Cache Memory
	29 th	1	Virtual Memory
	30 th	1	Introduction to Buses: Address Bus, Data Bus, and Control Bus
11 th	31 st	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
	32 nd	1	UNIT 5: PROCESSOR ARCHITECTURE AND CONTROL:
	33 rd	1	Introduction to Microprocessors and Microcontrollers
12 th	34 th	1	Basics of Arithmetic Logic Unit (ALU) and Control Unit
	35 th	1	Instruction Set Architecture (ISA): RISC vs CISC
	36 th	1	Pipelining
13 th	37 th	1	Pipelining and Performance Optimization in Processors
	38 th	1	1. Doubt Clearing class 2. Class test 2 3. Assignment
	39 th	1	UNIT 6: INPUT/OUTPUT AND ADVANCE TOPICS:
14 th	40 th	1	I/O Devices and Interfaces: Keyboard, Mouse, Printers
	41 st	1	Storage Devices Interrupts and DMA (Direct Memory Access)
	42 nd	1	Overview of Modern Trends: Multicore Processors, GPUs, and
15 th	43 rd	1	Embedded Systems
	44 th	1	Mini- Project: Design a Simple Digital Circuit or Simulate a Basic CPU Operation
	45 th	1	1. Doubt Clearing class 2. Assignment

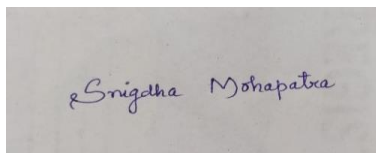


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ASIAN SCHOOL OF TECHNOLOGY, KHORDHA
ACADEMIC LESSON PLAN (WINTER-2026)
TH 5-ALGORITHM (COURSE CODE: CSEPC 209)

Discipline: CSE		Semester: 3 rd ,	Name of Faculty: MISS. SNIGDHA MOHAPATRA
Subject: Algorithm	No. of days/ week Class allotted: 3periods/we ek	No. of periods available: 45	Semester FromDate:02.07.2026 To 05.11.2026
			No Of Week-15
Week	Class Day		Theory
1 st	1 st	1	UNIT1: INTRODUCTION TO ALGORITHMS
	2 nd	1	Definition of algorithm Criteria of algorithms – Input/output
	3 rd	1	Finiteness Definiteness
2 nd	4 th	1	Effectiveness
	5 th	1	writing an algorithm with pseudo code
	6 th	1	Algorithms
3 rd	7 th	1	Programs
	8 th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
	9 th	1	UNIT 2: ALGORITHMIC COMPLEXITY
4 th	10 th	1	Concept of algorithmic complexity
	11 th	1	space complexity
	12 th	1	time complexity
5 th	13 th	1	worst case
	14 th	1	average case and best-case analysis
	15 th	1	Big-O notation
6 th	16 th	1	Finding the complexity of an algorithm
	17 th	1	1. Doubt Clearing class 2. Quiz test 3. Assignment
	18 th	1	UNIT 3: RECURSIVE ALGORITHMS
7 th	19 th	1	Concept of iteration and recursion
	20 th	1	Examples of recursive algorithms – Fibonacci series
	21 st	1	Factorial
8 th	22 nd	1	Tower-of-Hanoi problem
	23 rd	1	Complexities of recursive algorithms
	24 th	1	Conversion of recursive algorithm to iterative algorithm.
9 th	25 th	1	1. Doubt Clearing class 2. Class test 1 3. Assignment

	26 th	1	UNIT 4: ALGORITHM PARADIGMS
	27 th	1	Greedy Divide and Conquer
10 th	28 th	1	Branch and Bound Dynamic Programming Backtracking.
	29 th	1	1. Doubt Clearing class 2. Class test 2 3. Assignment
	30 th	1	UNIT 5: SORTING
11 th	31 st	1	The sorting problem. Bubble sort
	32 nd	1	Selection sort Insertion sort
	33 rd	1	Merge sort Quicksort Heap sort
12 th	34 th	1	RADIX SORT.SEARCHING
	35 th	1	Symbol Tables Binary Search Trees
	36 th	1	Balanced Search Trees Hashing Hash Tables.
13 th	37 th	1	UNIT 6: GRAPHS
	38 th	1	Definition of a directed and undirected graph Paths
	39 th	1	Cycles Spanning trees
14 th	40 th	1	Directed Acyclic Graphs
	41 st	1	Topological Sorting
	42 nd	1	Minimum Spanning Tree algorithms
15 th	43 rd	1	SHORTEST PATH ALGORITHMS
	44 th	1	Dijkstra's algorithm. Flow-based algorithms.
	45 th	1	1. Doubt Clearing class 2. Assignment



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