

# Department of Computer Science, Govt. College Kheri Chopta (Hisar)

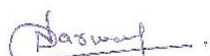
## Lesson Plan 2024-25

Name of Assistant/Associate Professor: Dinesh

Class and Section: BA (Computer Sc) –II Year 4th Sem.

Subject: Software Engineering

Jan. 2025	
	Topic Covered
Week 1	Program vs Software, Software Engineering paradigms, Software Crisis-problem and causes
Week 2	Phases in Software Development :Requirement, Analysis, Software Design
Week 3	Coding ,Testing, Maintenance, Software Development Process Models: Waterfall
Week 4	Prototype, Evolutionary and Spiral Models
Feb. 2025	
	Topic Covered
Week 1	Software Requirement Analysis and Specifications: Feasibility Study Software Requirements
Week 2	Need for SRS, Characteristics of an SRS, Components of an SRS, Structure of a requirements document
Week 3	Validation and matrices , Problem Analysis ,Data Flow Diagram
Week 4	Data Dictionary, Decision table, Decision trees
March 2025	
	Topic Covered
Week 1	Software Project Planning :Process Planning ,Effort estimation ,COCOMO model ,Project Scheduling and Staffing
Week 2	Team structure, Software configuration management ,Quality assurance plans, Risk Management, Project monitoring plans
Week 3	Holi Holidays
Week 4	Software Implementation and Maintenance :Type of maintenance ,Management of Maintenance ,Maintenance Process ,maintenance characteristics
April 2025	
	Topic Covered
Week 1	Testing fundamentals ,Error , Fault and Failure ,Test oracle ,Test Case and Test Criteria, Psychology of testing,
Week 2	Black Box Testing ,Equivalence Class Partitioning ,Boundary value analysis ,Cause effect graphing
Week 3	White box testing ,Control flow based criteria ,level of testing ,Unit testing,
Week 4	Integration testing ,System testing ,Validation testing , alpha ,beta and Acceptance testing



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## Lesson Plan 2024-25

Name of Assistant/Associate Professor: Dinesh

Class and Section: BA (Computer Sc) –II Year 4th Sem.

Subject: Computer Networks

Jan. 2025	
	Topic Covered
Week 1	Introduction to Computer Communications and Networking Technologies,
Week 2	Uses of Computer Networks, Network Devices, Nodes, and Hosts
Week 3	Types of Computer Networks and their Topologies,
Week 4	OSI Reference Model, TCP/IP Reference Model.
Feb. 2025	
	Topic Covered
Week 1	Analog and Digital Communications Concepts: Representing Data as Analog Signals,
Week 2	Representing Data as Digital Signals, Data Rate and Bandwidth, Capacity, Baud Rate;
Week 3	Digital Carrier Systems; Guided and Wireless Transmission Media;
Week 4	Communication Satellites; Switching and Multiplexing.
March 2025	
	Topic Covered
Week 1	Data Link Layer: Framing, Flow Control, Error Control, Error Detection and Correction,
Week 2	Sliding Window Protocols, Media Access Control,
Week 3	Holi Holidays
Week 4	Random Access Protocols, Token Passing Protocols, Token Ring, Ethernet, gigabit Ethernet, token ring, FDDI, Bluetooth and Wi-Fi.
April 2025	
	Topic Covered
Week 1	Network Layer and Routing Concepts: Virtual Circuits and Datagrams,
Week 2	Routing Algorithms, Flooding, Shortest Path Routing,
Week 3	Distance Vector Routing, Link State Routing, Hierarchical Routing,
Week 4	Congestion Control Algorithms, Internetworking, IPV4 and IPV6.



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## Lesson Plan 2024-25

Name of Assistant/Associate Professor: Dinesh

Class and Section: BA (Computer App.) –III Year 6th Sem.

Subject: Computer Graphics

Jan 2025	
	Topic Covered
Week 1	Introduction: Historical perspective of Computer Graphics, Basic elements of Computer graphics
Week 2	Modelling, Rendering, Animation, Applications of Computer Graphics
Week 3	Input Devices: Keyboard, Mouse, Light Pen, Graphic Tablets
Week 4	Joysticks, Trackball, Flatbed Scanner
February 2025	
	Topic Covered
Week 1	Hardcopy Devices: Laser Printer, Flatbed Plotters
Week 2	Video Display Devices: Pixel, Resolution, Aspect Ratio, Refresh Rate and Interlacing
Week 3	Cathode Ray Tube, Flat Panel Display-LCD and Plasma Panel
Week 4	Raster and Random scan display system.
March 2025	
	Topic Covered
Week 1	Line Generation Algorithm: DDA, Bresenham's
Week 2	Circle Generation Algorithm: Bresenham's Circle Drawing, Midpoint Circle Drawing Algorithm, Polygon Filling Algorithm-Scan Line Algorithm, Viewing and Clipping –Point Clipping and Line Clipping
Week 3	Holi Holidays
Week 4	Cohen-Sutherland Line Clipping Algorithm, Polygon Clipping(Sutherland Hodgman Algorithm)
April 2025	
	Topic Covered
Week 1	2-Dimensional Graphics: Cartesian and homogeneous Co-ordinate System, Geometric Transformations
Week 2	Translation, Scaling, Rotation, Reflection
Week 3	3-Dimensional Graphics: Geometric Transformations(Translation, Scaling,
Week 4	Rotation, Reflection, Mathematics of Projections (Parallel and Perspective)

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## Lesson Plan 2024-25

Name of Assistant/Associate Professor: Dinesh

Class: B Sc (Computer Sc.) –III Year 6th Sem.

Subject: Python Programming

Jan 2025	
	Topic Covered
Week 1	Python Programming: history and features, interpreter, variable, identifiers, literal, token, keyword, data type, operators: arithmetic, relational, bitwise, assignment, membership, identity, operator precedence, comment, indentation
Week 2	Built-in functions: input, eval, print, type, round, min, max, pow, type conversion, random no. Generation. Mathematical functions assert statement
Week 3	Control statements: If Condition, for and while statements, break, continue and pass statements
Week 4	Functions: definition, call, function arguments: variable, default, keywords, arbitrary,
Feb 2025	
	Topic Covered
Week 1	command line arguments, Global local variables
Week 2	Strings data type, String operations- Concatenation, Repetition, Membership, Slicing operation
Week 3	String methods- count, find, rfind, title, lower, upper, swapcase, islower, isupper, istitle, isalpha, isdigit, isalnum
Week 4	Lists operations-multiplication, concatenation, length, indexing, slicing, min, max, sum, membership operator, list functions
March 2025	
	Topic Covered
Week 1	Recursion solution for problems on Numbers, String and list
Week 2	OOP: introduction to classes, methods, class object, instance object, method object
Week 3	Holi Holidays
Week 4	Class as abstract data type, data class.
April 2025	
	Topic Covered
Week 1	Access attributes using functions
Week 2	Functions-getattr, hasattr, setattr, delattr
Week 3	Built-in class Attributes of class object(dict, doc, name, module)
Week 4	Graphics: Screen objects, Screen objects Methods



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