

Lesson Plan for U.G. MDC 3rd Semester Session - 2025-2026 (July to Nov 2025) Teacher Name: Ms. Jyoti	
July-Aug 2025	Introduction to Python: Python Interpreter, Python as calculator, Python shell, Indentation, identifier and keywords, literals, strings, Operators: Arithmetic, Relational, Logical, comparison, Bitwise, Assignment, Identity operator and Membership operator; Input output statement; Control statements: Branching, looping, Conditional statement, exit function, String manipulations: Subscript operator, indexing, slicing a string, other functions on strings, string module.
Sept2025	Strings and number system: Format functions, converting strings to numbers & Vice-Versa. List, Tuples, Sets, Dictionaries: Basic list operators, replacing, inserting, removing an element, searching, Sorting lists, dictionary literals, adding & removing keys, accessing & replacing values, traversing dictionaries, Array in Python, Design with Functions: hiding redundancy. complexity, arguments & return values Assignment
Oct2025	Formal/Actual arguments, named arguments, program structure and design, Recursive functions, scope & Global statements, Importing modules, Math modules & Random modules. Exception Handling: Exceptions, except clause, try and finally clause, user defined exceptions. Test
Nov2025	File Handling: Manipulating files & directories, OS & SYS modules, Reading, Writing text & numbers from/to file. Graphics: Turtle module, drawing colours, shapes. digital images. image file formats. Test & Revision

Lesson Plan for B.Sc. Physical Science 3rd Semester
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July-Aug 2025	Monitors: Block diagram of monochrome monitors. Pixels and resolution, Sync section, Position video amplifier, Display basics, test mode and graphic mode, Display adapter cards, HGA, CGA, VGA, EGA and super VGA. How they fail, troubleshooting and elimination, maintenance chart, Monitor adjustments, size, brightness, focus etc, Fault in various sections of monochrome monitors, Block diagram of color monitors, basic color theory, faults in color section. Keyboards: Study of keyboards, types, interface 8048, Interconnection to PC, Common faults and diagnostics,
Sept2025	Introduction to mouse on serial ports, Parallel port card, serial port card, integrated card, Joy stick, light pen, graphics table controller, Printers: Types of printers (DMP, INKJET, LASER & LINE), Connecting printers to computers, Preventive maintenance of printers, Memories: How memory works, Memory speed, access time, wait states, Types of memory, Dynamic and static memory Assignment
Oct2025	Cache memory, shadow RAM, ROM chips, Reading memory error messages, adding RAM, Tips on installing memory chips, Static and handling precautions Disk structure: Cylinders, heads, platters, tracks and sectors, structure of a disk, Floppy Disks: Types, structure, working principles. Removing, configuring and installing floppy disk drive, Floppy drive testing, troubleshooting and adjustment. IDE controller card. Test
Nov2025	CD-ROM drive: CD drives mechanism installation of CD drive, Mouse: Circuit Diagram, faulty finding, repairing Test & Revision

Lesson Plan for U.G. MDC 1st Semester Session - 2025-2026 (July to Nov 2025) Teacher Name: Ms. Jyoti	
July-Aug 2025	Introduction to Computers: Definition of Computers, History and Generations of Computers, Characteristics of computer, Classification of Computers. Fundamental Block diagram of Computer: CPU, Input & Output
Sept2025	Software: Definition of Software, Types of Software-System software, Application software and Utility software. Types of Computer Languages, Assemblers, Interpreters, Compiler. Introduction to Operating Systems: Types of Operating System, Functions of Operating System. Assignment
Oct2025	Windows: Introduction to Windows, Starting Windows, Desk Top, Task Bar, Opening and closing applications, icons creating, renaming and removing. Date and Time setting, working with files and folders-creating, deleting, opening, finding, copying, moving, and renaming. Communication: Concept, Basic Elements of a Communication System, Data Transmission Media, LAN, MAN, WAN. Test
Nov2025	Introduction of Internet and WWW, Basic working of a Web Browser, Introduction to browsers. Test & Revision

Lesson Plan for U.G. SEC 1st Semester Session - 2025-2026 (July to Nov 2025) Teacher Name: Ms. Jyoti	
July-Aug 2025	Manage Workbook Options and Settings: Create Worksheets and Workbooks, navigate in Worksheets and Workbooks, Customize Options and Views for Worksheets and Workbooks, Configure Worksheets and Workbooks for Distribution. Apply Custom Data Formats and Layouts: Apply Custom Data Formats and Validation, Apply Advanced Conditional Formatting and Filtering, Create and Modify Custom Workbook Elements.
Sept2025	Create Tables: Create and Manage Tables, Manage Table Styles and Options, Filter and Sort a Table. Perform Operations with Formulas and Functions: Summarize Data by using Functions, Perform Conditional Operations by using Functions, Format and Modify Text by using Functions Assignment
Oct2025	Create Charts and Objects: Create Charts, Format Charts, Insert and Format Objects. Manage Workbook Options and Settings: Manage Workbooks, Manage Workbook Review Restrict editing. Create Advanced Formulas: Apply Functions in Formulas, Look up data by using Functions, Apply Advanced Date and Time Functions, Perform Data Analysis and Business Intelligence Test
Nov2025	Define Named Ranges and Objects, Create Advanced Charts and Tables: Create and Manage PivotTables, Create and Manage Pivot Charts. Test & Revision

Lesson Plan for B.Sc. Physical science 1st Semester
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July-Aug 2025	Computer Fundamentals: Evolution of Computers through generations, Characteristics of Computers, Strengths and Limitations of Computers, Classification of Computers, Applications of computers in various fields. Software: Types of Software: System Software, Application software, Utility Software, Shareware, Freeware, Firmware, Free Software. Hardware components of a computer system – processor, RAM, ROMs, motherboard, power supply etc.
Sept2025	Storage devices: Types of Storage devices: Magnetic tape, Hard disk, Optical disk, Flash memory / IO Devices: I/O Ports, Device Controller, Device Driver Input Devices – Classification and uses: keyboard, Pointing devices – mouse, touch pad and trackball, Video digitizer, remote control, joystick, magnetic stripes, scanner, digital camera, microphone, sensor and MIDI instruments Output Devices: Monitor, printers – classification, laser, inkjet, dot-matrix, plotter, and speaker. Assignment
Oct2025	Problem Solving. Program, Types of Program Errors, Debugging a Program. Documentation: Need & Different Forms. Developing Program Logic: Algorithm, Characteristics of Good Algorithm, Pseudo Code, Flowchart & its Symbols, Data Flow Diagrams (DFDs), Decision Tables. Planning the Computer Program: Techniques of Problem Solving, Program Logic. Algorithm, Characteristics of Good Algorithm, Pseudo Code, Flowchart & its Symbols. Test
Nov2025	Developing Algorithms: Time & space complexity of algorithms. Big-O Notation. Drawing Flowcharts and writing algorithms for basic problems. Sorting Algorithms: bubble sort, selection sort, insertion sort, quick sort. Searching Algorithms: linear search, binary search, merging Algorithm. Test & revision