



## Kendriya Vidyalaya (Embassy of India School) Moscow

### SPLIT-UP SYLLABUS 2024-25

Class	XII	Subject	Informatics Practices(065)		
Sl No	Month	Number of working Days	Description (Title of the chapter, Topics /Units)	Suggestive Practical, Project, MDP, Tests & Assignments	Suggested methodology to be used (Like PBL/AIL/CCT/ Experiential learning)
01.	April 2024	22	<b>Unit 1: Data Handling using Pandas and Data Visualization</b> <b>Data Handling using Pandas -I</b> Introduction to Python libraries- Pandas, Matplotlib, Data structures in Pandas - Series and Data Frames. Series: Creation of Series from – ndarray, dictionary, scalar value; mathematical operations; Head and Tail functions; Selection, Indexing and Slicing. Data Frames: creation - from dictionary of Series, list of dictionaries, Text/CSV files; display; iteration; Operations on rows and columns: add, select, delete, rename; Head and Tail functions; Indexing using Labels, Boolean Indexing; Importing/Exporting Data between CSV files and Data Frames.	<ul style="list-style-type: none"> <li>Simple Programs related to Python Pandas (Series and Data Frame)</li> </ul>	*Presentation *Discussion * PBL (Problem-Based Learning) * Experiential learning
02.	May 2024	19	<b>Unit 1: Data Handling using Pandas and Data Visualization (Contd..)</b> <b>Data Visualization</b> Purpose of plotting; drawing and saving following types of plots using Matplotlib – line, plot, bar graph, histogram. Customizing plots: adding label, title, and legend in plots.	<ul style="list-style-type: none"> <li>Simple Programs related to Python Plotting</li> </ul>	*Presentation *Demonstration * Experiential learning
03	June- July 2024	21	<b>Unit 2: Database Query using SQL</b> Math functions: POWER (), ROUND (), MOD (). Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM ()	<ul style="list-style-type: none"> <li>Other Practical Questions (Follow CBSE syllabus Inf. Practices Practical List)</li> </ul>	*Presentation *Demonstration * CCT * PBL (Problem-Based Learning)

04	August 2024	19	<b>Unit 2: Database Query using SQL [Continues....]</b>  Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). Querying and manipulating data using Group by, Having, Order by. Working with two tables using equi-join	<ul style="list-style-type: none"> <li>Other Practical Questions (Follow CBSE syllabus Inf. Practices Practical List)</li> </ul>	*Presentation *Demonstration * PBL (Problem-Based Learning) * Experiential learning
05	September 2024	21	<b>Unit 3: Introduction to Computer Networks</b> Introduction to networks, Types of network: PAN, LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star, Bus, Tree, Mesh. Introduction to Internet, URL, WWW, and its applications- Web, email, Chat, VoIP. Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website. Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.	<ul style="list-style-type: none"> <li>Practical Questions (Follow CBSE syllabus Inf. Practices Practical List)</li> </ul>	*Presentation *Demonstration * PBL (Problem-Based Learning) * Experiential learning
06	October 2024	19	<b>Unit 4: Societal Impacts</b> Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, free and open source software (FOSS),	<ul style="list-style-type: none"> <li>Practical Questions (Follow CBSE syllabus Inf. Practices Practical List)</li> </ul>	*Presentation *Demonstration * PBL (Problem-Based Learning) * Experiential learning
07.	November 2024	21	<b>Unit 4: Societal Impacts [Continues.....]</b> cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act. E-waste: hazards and management. Awareness about health concerns related to the usage of technology.	<ul style="list-style-type: none"> <li>Practical Questions (Follow CBSE syllabus Inf. Practices Practical List)</li> </ul>	*Presentation *Demonstration * PBL (Problem-Based Learning) * Experiential learning
08	December 2024 January 2025	21	<b>Project Revision Work</b>	Project Development	

09.	February 2025	20	CBSE Board Practical Examination		
10.	March 2025	---	Board Exams		