

**DATA SCIENCE (SUBJECT CODE 419)**

**CLASS - X (SESSION 2026-27)**

**Total Marks: 100 (Theory-50 + Practical-50)**

<b>Week/Month</b>	<b>Chapters/ Topics</b>	<b>Subtopics</b>	<b>No. of Periods</b>
6 <sup>nd</sup> April – 30 <sup>th</sup> April	<b>PART B - SUBJECT SPECIFIC SKILLS</b> <b><u>Unit 1: USE OF STATISTICS IN DATA SCIENCE</u></b>	<ul style="list-style-type: none"> <li>• Introduction to subsets and frequency</li> <li>• What are subsets?</li> <li>• How do we subset the data?</li> <li>• Two-way frequency table</li> <li>• Interpreting the two-way tables</li> <li>• Two-way relative frequency table</li> <li>• Meaning of Mean</li> <li>• Median</li> <li>• Mean absolute deviation</li> <li>• Standard Deviation</li> <li>• Activity – Calculating the average family size of households</li> </ul>	10 Theory + 2 Practical
4 <sup>th</sup> May – 14 <sup>th</sup> May	<b><u>Unit 2: DISTRIBUTIONS IN DATA SCIENCE</u></b>	<ul style="list-style-type: none"> <li>• Introduction to Distribution</li> <li>• How is Distribution related to data science?</li> <li>• Different types of Distributions in Data Science</li> <li>• Statistical Problem-Solving Process</li> <li>• Activity – Choosing groups for school dance program</li> </ul>	3 Theory + 2 Practical
15 <sup>th</sup> May – 26 <sup>th</sup> May	<b><u>Unit 3: IDENTIFYING PATTERNS</u></b>	<ul style="list-style-type: none"> <li>• What is partiality, preference, and prejudice?</li> <li>• How to identify partiality, preference, and prejudice?</li> <li>• Probability for Statistics</li> <li>• The Central Limit Theorem</li> <li>• Why is Central Limit Theorem important?</li> </ul>	6 Theory
6 <sup>th</sup> July – 29 <sup>th</sup> July	<b><u>Unit 4: DATA MERGING</u></b>	<ul style="list-style-type: none"> <li>• Overview of Data Merging</li> <li>• What is a Z-score?</li> <li>• How to calculate a Z-score?</li> <li>• How to interpret the Z-score?</li> <li>• Why is Z-score so important?</li> </ul>	9 Theory
30 <sup>th</sup> July – 09 <sup>th</sup> Aug	<b><u>Unit 5: ETHICS IN DATA SCIENCE</u></b>	<ul style="list-style-type: none"> <li>• Note about data governance framework</li> <li>• Ethical guidelines around data analysis</li> <li>• Discarding the data</li> <li>• Ethical guidelines around data analysis</li> <li>• Discarding the data</li> </ul>	4 Theory
10 <sup>th</sup> Aug – 19 <sup>th</sup> Aug	<b>PART A - EMPLOYABILITY SKILLS</b>  <b><u>Unit I Communication Skills - II</u></b>	<p><b>Demonstrate knowledge of various methods of communication</b></p> <ul style="list-style-type: none"> <li>• Methods of communication</li> <li>• Verbal.</li> <li>• Non-verbal.</li> <li>• Visual.</li> </ul>	

		<p><b>Provide descriptive and specific feedback</b></p> <ul style="list-style-type: none"> <li>• Communication cycle and importance of feedback.</li> <li>• Meaning and importance of feedback.</li> <li>• Descriptive feedback - written comments or conversations.</li> <li>• Specific and non-specific feedback.</li> </ul> <p><b>Apply measures to overcome barriers in communication</b></p> <ul style="list-style-type: none"> <li>• Barriers to effective communication - types and factors.</li> <li>• Measures to overcome barriers in effective Communication.</li> </ul> <p><b>Apply principles of communication</b></p> <ul style="list-style-type: none"> <li>• Principles of effective communication.</li> <li>• 7 Cs of effective communication.</li> </ul> <p><b>Demonstrate basic writing skills.</b></p> <ul style="list-style-type: none"> <li>• Writing skills</li> <li>• Sentence</li> <li>• Phrase</li> <li>• Kinds of Sentences</li> <li>• Parts of Sentence</li> <li>• Parts of Speech</li> <li>• Articles</li> <li>• Construction of a Paragraph.</li> </ul>	<p>4 Theory</p>
<p>20<sup>th</sup> Aug – 03<sup>th</sup> Sep</p>	<p><b><u>Unit II Self Management Skills - II</u></b></p>	<p><b>Apply stress Management Techniques</b></p> <ul style="list-style-type: none"> <li>• Meaning and importance of stress management</li> <li>• Stress management techniques - physical exercise, yoga, meditation</li> <li>• Enjoying, going to vacations and holidays with family and friends</li> <li>• Taking nature walks</li> </ul> <p><b>Demonstrate the ability to work independently</b></p> <ul style="list-style-type: none"> <li>• Importance of the ability to work independently.</li> <li>• Describe the types of self-awareness.</li> <li>• Describe the meaning of self-motivation and self-regulation.</li> </ul>	<p>5 Theory</p>

07 <sup>th</sup> Sep – 21 <sup>st</sup> Sep	<b><u>Unit III ICT Skills - II</u></b>	<b>Distinguish between different operating systems</b> <ul style="list-style-type: none"> <li>• Classes of operating systems</li> <li>• Menu, icons and task bar on the desktop</li> <li>• File concept, file operations, file organization, directory structures, and file- system structures</li> <li>• Creating and managing files and folders</li> </ul> <b>Importance and need of care and maintenance of computer</b> <ul style="list-style-type: none"> <li>• Cleaning computer components</li> <li>• Preparing maintenance schedule</li> <li>• Protecting computer against viruses</li> <li>• Scanning and cleaning viruses and removing SPAM files, temporary files and folders</li> </ul>	5 Theory
22 <sup>nd</sup> Sep – 06 <sup>th</sup> Oct	<b><u>Unit IV Entrepreneurial Skills- II</u></b>	<b>List the characteristics of successful entrepreneur</b> <ol style="list-style-type: none"> <li>1. Entrepreneurship and society.</li> <li>2. Qualities and functions of an entrepreneur.</li> <li>3. Role and importance of an entrepreneur.</li> <li>4. Myth about entrepreneurship.</li> <li>5. Entrepreneurship as a career option.</li> </ol>	5 Theory
07 <sup>th</sup> Oct – 15 <sup>th</sup> Oct	<b><u>Unit V Green Skills - II</u></b>	<b>Demonstrate the knowledge of importance, problems and solutions related to Sustainable Development</b> <ol style="list-style-type: none"> <li>1. Definition of sustainable development.</li> <li>2. Importance of sustainable development.</li> <li>3. Problems related to sustainable development.</li> </ol>	4 Theory
16 <sup>th</sup> Oct – 30 <sup>th</sup> Oct	<b><u>PART C Practical Work/ Project Work</u></b>	<ol style="list-style-type: none"> <li>1. Draw a graph to represent Standard deviation of 4.6</li> <li>2. Calculate the mean of this data set - [56, 89, 76, 58, 58, 65]</li> <li>3. Calculate the median of this data set - [56, 89, 76, 58, 58, 65]</li> <li>4. Consider that there are 60 students in your class out of which 20 get affected with cold and flu every semester. Note down five statistical investigative questions for determining a students' immunity to a catching cold and flu.</li> <li>5. Consider you are taking a part in an animal welfare campaign. One of the most recent concerns raised by people is dogs not being able to tolerate sudden rise in temperatures due to global warming. Note down five statistical investigative questions to understand how dogs react to changing weather.</li> <li>6. The recorded percentage of the population who speaks English</li> </ol>	

		<p>in India are following a normal distribution. The mean and the standard deviations are 62 and 5, respectively. If a person is eager to find the record of 50 people in the population, then what would mean and the standard deviation of the chosen sample?</p> <p>7. Suppose heights of 2nd graders follow a normal distribution with a mean of 48 inches and a standard deviation of 2 inches. What is the z score of a 2nd grader who is 40 inches tall?</p>	
02 <sup>nd</sup> Nov - 10 <sup>th</sup> Nov	<b>Revision</b>		
<b>I Pre-Board Examination (November 13,2026 to November 30,2026)</b> <b>(Entire syllabus will be considered)</b>			
01 <sup>st</sup> Dec - 11 <sup>th</sup> Dec	<b>Revision</b>		
<b>II Pre-Board Examination (December 14, 2026 to January 10, 2027)</b> <b>(Entire syllabus will be considered)</b>			
12 <sup>th</sup> Jan - 05 <sup>th</sup> Feb	<b>Revision</b>		