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| **Sl. No** | **Syllabus** | **Curriculum** | **Deployment Strategy and**  **Tool** | **Cross-cutting issues**  **integrated** | **PO, PSO and CO** | **Attainment Verification** |
| 1. | ENGINEERING MATHEMATICS – IV | * To provide the numerical methods of solving the nonlinear equations, interpolation, differentiation, and integration. To improve the student's skills in numerical methods by using the numerical analysis software and computer facilities. * Numerical methods are commonly used for solving mathematical problems that are formulated in science and engineering where it is difficult or impossible to obtain exact solutions. MATLAB has a large library of functions for numerically solving a wide variety of mathematical problems * Probability provides information about the likelihood that something will happen. Meteorologists, for instance, use weather patterns to predict the probability of rain. In epidemiology, probability theory is used to understand the relationship between exposures and the risk of health effects. | 1. Chalk and   Talk method   1. PPT | * Business   Ethics   * Human   values | PO1:Engineering Knowledge  PO2:Problem Analysis  PO3:Design/Development Of Solutions  PO4:Conduct Investigations Of Complex Problems |  |
|  |  | PO6: Engineer and Society  PO7:Environment  PO10:COMMUNICATION  PO11:Project Management and Finance.  PO12: Life-long  Learning. |
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|  |  | PSO2:Problem Solving Skill |
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|  |  | **CO1** Use appropriate single step and multi step numerical methods to solve first and  second order ordinary differential equations arising in flow data problems.  **CO2**  Explain idea of analyticity, potential fields in field theory and electromagnetic theory.  **CO3** Solving complex integration and describe conformal and bilinear transformation  arising in aerofoil theory, fluid flow visualization and image processing.  **CO4** Employ Bessel’s functions and Legendre’s polynomials for tackling problems arising in  mechanics, hydrodynamics and heat conduction.  **CO5** Solve problems on probability distribution and evaluate joint probability distributions  connected with multivariable correlation problem for feasible random events.  **CO6** Analyze, interpret and evaluate scientific hypotheses and theories using rigorous  statistical methods. |
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