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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: Solve first and second order ordinary differential equation arising in flow problems using single step and multistep numerical methods. |
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|  |  | CO2: Analyze problems of potential theory, quantum mechanics and heat conduction by employing notions and properties of Bessel’s functions and Legendre’s polynomials. |
|  |  | CO3: Explain the concepts of analytic functions, residues, poles of complex potentials and describe conformal and Bilinear transformation arising in field theory and signal processing. |
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|  |  | CO4: Develop probability distribution of discrete, continuous random variables and joint probability distribution occurring in digital signal processing, information theory and design engineering. |
|  |  | CO5:Demonstrate testing of hypothesis of sampling distributions and illustrate examples of Markov chains related to discrete parameter stochastic process. |

