ACADEMIC YEAR 2023-24 BSH COURSE OUTCOMES

| COURSE NAME | COURSE CODE | CO NO. | COURSE OUTCOME |
|--|-----------------|-----------|--|
| ENGINEERING MATHEMATICS -I | BTBS101 | 1 | Apply the matrix technique (Linear algebra) to find solutions of system of linear equations arising in many engineering problem |
| | | 2 | Demonstrate the concept partial derivatives and their applications to Maxima/ Minima, series expansion of multi valued functions. |
| | | 3 | Compute Jacobian of functions of several variables and their applications to engineering problems |
| | | 4 | Identify and sketch of curves in various coordinate system. |
| | | 5 | Evaluate multiple integrals and their applications to area and volume. |
| ENGINEERING PHYSICS | BTBS102/ 202 | 1 | Explain & apply the concept of types of Oscillation, Dielectric properties & ultrsonics |
| | | 2 | Explain & compare between Interference & Polarisation of light ,working Principle of Lasers & Fiber optics |
| | | 3 | Interprete, apply &demonstrate principle of motion of charged particles in EF&MF,BAinbridge Mass spectrograph &G M counter |
| | | 4 | Identify Types of crystals & crystal planes using Miller indices,Experemental apprroach. |
| ENGINEERING GRAPHICS | BTES103/ 203 | 1 | Use of drawing instruments effectively for drawing and dimensioning |
| | | 2 | Explain conventions and methods of engineering drawing |
| | | 3 | Apply concept of projections of points, lines, planes, solids and section of solids. |
| | | 4 | Construct isometric and orthographic views of given objects. |
| | BTHM104 /204 | 1 | Apply speaking and writing skills in professional as well as social situations |
| COMMUNICATION SKILL | | 2 | Overcome Mother Tongue Influence and demonstrate neutral accent while exercising English |
| | | 3 | Apply communication skills for Presentations, Group Discussion and interpersonal interactions. |
| | | 4 | Apply grammar correctly during Speaking and Writing situations especially in context with Presentations, Public Speaking, Report writing and Business Correspondence |
| Energy and Environment Engineering | BTES105/ 205 | 1 | Identify conventional ,non conventional energy sources |
| | | 2 | Know and discuss power consuming and power developing devices for effective utilization and power consumption |
| | | 3 | Identify various sources of air, water pollution and its effects |
| | | 4 | Know and discuss noise, soil, thermal pollution and Identify solid, biomedical and hazardous waste. |

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| Basic Civil and Mechanical Engineering | BTES106/ 206 | 1 | Identify various Civil Engineering materials and choose suitable material among various options |
| | | 2 | Apply principles of surveying to solve engineering problem |
| | | 3 | Identify various Civil Engineering structural components and select appropriate structural system among various options |
| | | 4 | Explain and define various properties of basic thermodynamics, materials and manufacturing processes |
| | | 5 | Know and discuss the working principle of various power consuming and power developing devices |
| Engineering Mathematics – II | BTBS201 | 1 | To Know And Discuss The Need And Use Of Complex Variables To Find Roots, To Separate Complex Quantities And To Establish Relation Between Circular And Hyperbolic Functions. |
| | | 2 | To Understand And Solve First Order Differential Equations And Apply Them As A Mathematical Modeling In Electric And Mechanical Systems. |
| | | 3 | To Understand And Solve Higher Order Differential Equations And Apply Them As A Mathematical Modeling In Electric And Mechanical Systems. |
| | | 4 | To Determine Fourier Series Representation Of Periodic Functions Over Different Intervals. |
| | | 5 | To Know Gradient, Divergence & Curl And Apply The Principles Of Vector Integration To Transform Line Integral To Surface Integral, Surface To Volume Integral & Vice Versa Using Green's, Stoke's And Gauss Divergence Theorems. |
| | BTBS102/ 202 | 1 | Demonstrate knowledge of chemistry in technical fields. |
| Engineering | | 2 | Bring adaptability to new developments in Engineering Chemistry and to acquire the skills required to become a perfect engineer |
| Chemistry | | 3 | Develop the importance of water in industrial and domestic usage. |
| | | 4 | Identify the concepts of Chemistry to lay the ground work for subsequent studies in various engineering fields. |
| | | 5 | Examine a fuel and suggest alternative fuels |
| Engineering Mechanics | BTES103/ 203 | 1 | Apply fundamental Laws of Engineering Mechanics |
| | | 2 | Apply Conditions of static equilibrium to analyze given force system |
| | | 3 | Compute Centre of gravity and Moment of Inertia of plane surfaces |
| | | 4 | Compute the motion characteristics of a body/particle for a Rectilinear and Curvilinear Motion |
| | | 5 | Know and discuss relation between force and motion characteristics |

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| Computer Programming in C | BTES104/ 204 | 1 | Gain a broad perspective about the uses of computers in engineering industry and C Programming. |
| | | 2 | Develop the basic concept of algorithm, algorithmic thinking and flowchart. |
| | | 3 | Apply the use of C programming language to implement various algorithms and develops the basic concepts and terminology of programming in general. |
| | | 4 | Use the more advanced features of the C language. |
| | | 5 | Identify tasks in which the numerical techniques learned are applicable and |
| | | | apply them to write programs and hence use computers effectively to solve |
| | | | the task. |
| Basic Electrical and | BTES106/ 206 | 1 | Apply basic ideas and principles of electrical engineering |
| Electronics | | 2 | Identify protection equipment and energy storage devices. |
| Engineering | | 3 | Differentiate electrical and electronics domains and explain the operation of |
| | | | diodes and transistors. |
| | | 4 | Acquire knowledge of digital electronics |
| | | 5 | Design simple combinational and sequential logic circuits. |