MEERUT INSTITUTE OF TECHNOLOGY	**MEERUT INSTITUTE OF TECHNOLOGY, MEERUT**

SESSION: 2022-2023 (ODD/ EVEN)
SESSION: 2023-2024 (ODD/ EVEN)

Engineering Mathematics-I (BAS103)	
Course Outcome (COs)	
CO-1	Extend the concept of matrices in simultaneous linear equation.
CO-2	Remember the concept of differentiation to find successive differentiation and partial derivatives
CO-3	Make use of partial differentiation in various application of derivatives-extrema and error analysis
CO-4	Compute the area, volume, centre of mass and centre of gravity by multiple integrals
CO-5	Apply vector differentiation and integration for line , surface and volume integrals

Engineering Mathematics-II (BAS203)	
Course Outcome (COs)	
CO-1	Solve the higher order linear differential equation
CO-2	Understand the concept of Laplace transform to evaluate differential equations
CO-3	Classify the nature of sequence –series and expansion of Fourier series
CO-4	Make use of analytic function for conformal mapping and bilinear transformation
CO-5	Apply complex integration for the expansion of complex function and real integrals

Engineering Physics (BAS101/BAS201)	
Course Outcome (COs)	
CO-1	The students will be able to understand the concepts of engineering physics
CO-2	Apply the Theory of relativity in related phenomenon for the problems of classical Physics.
CO-3	Apply the concepts of Electromagnetic Field Theory for different conditions and applications.
CO-4	Apply the concept of Quantum Mechanics with reference to Classical Physics
CO-5	Apply the phenomenon of Wave & modern optics in Engineering

Engineering Physics Lab (BAS151/BAS251)	
Course Outcome (COs)	
CO-1	To learn about some application of carey foster bridge
CO-2	To study the variation of magnetic field along the axis of current carrying circular coil and magnetic field in ferromagnetic materials & hystressis loop
CO-3	To study the hall effect, stefan's law and energy band gap in semiconductor.
CO-4	To study the different phenomina of geometrical effect & physical optics (Newton's ring, diffraction grating and wavelength of He-Ne laser with diffraction grating)

Engineering Chemistry (BAS102/ BAS202)	
Course Outcome (COs)	
CO-1	The student will able to understand the concepts of engineering chemistry.
CO-2	The student will able to understand the concepts of materials used in engineering applications.
CO-3	The student will able to apply the concept of spectroscopy and stereochemistry in determination of molecular structure.
CO-4	The student will able to apply the functional aspect of electrochemistry, batteries and corrosion.
CO-5	The student will able to apply the knowledge of water and fuel chemistry for industrial and domestic use.

Engineering Chemistry Lab (BAS152/BAS252)	
Course Outcome (COs)	
CO-1	To determine impurities such as hardness and alkalinity present in water.
CO-2	To determine iron concentration and percentage of available chlorine in water using titration methods.
CO-3	To determine molecular properties such as surface tension, viscosity, pH of solution.
CO-4	To prepare industrially useful polymer resins like urea formaldehyde, phenol formaldehyde.

Fundamentals of Electrical Engineering (BEE101/BEE201)	
Course Outcome (COs)	
CO-1	Apply the concepts of KVL/KCL and network theorems in solving DC circuits.
CO-2	Analyze the steady state behavior of single phase and three phase AC electrical circuits.
CO-3	Identify the application areas of a single phase two winding transformer as well as an auto transformer and calculate their efficiency.
CO-4	Illustrate the working principles of induction motor, synchronous machine as well as DC machine and employ them in different area of applications.
CO-5	Describe the components of low voltage electrical installations.

Basic Electrical Engineering Lab (BEE151/BEE251)	
Course Outcome (COs)	
CO-1	Conduct experiments illustrating the application of KVL/KCL and network theorems to DC electrical circuits.
CO-2	Demonstrate the behavior of AC circuits connected to single phase AC supply and measure power in single phase as well as three phase electrical circuits.
CO-3	Perform experiment illustrating BH curve of magnetic materials.
CO-4	Calculate efficiency of a single phase transformer and DC machine.
CO-5	Perform experiments on speed measurement and reversal of direction of three phase induction motor and Identify the type of DC and AC machines based on their construction.
Fundamentals of Electronics Engineering (BEC101/BEC201)	
Course Outcome (COs)	

CO-1	Apply the concept of PN Junction diode in various diode based circuits.
CO-2	Understand the concepts of BJT, FET and MOSFET.
CO-3	Apply the concepts of operational amplifier in various op-amp based circuits.
CO-4	Apply the concepts of number system and Boolean algebra.
CO-5	Understand the fundamentals of communication engineering.

Basic Electronics Engineering Lab (BEC151/BEC251)	
Course Outcome (COs)	
CO-1	Able to identify and understand the handling of lab equipment and processes like Active & Passive Components, PCB, electronics measuring devices and soldering techniques.
CO-2	Demonstrate the behaviour of various applications of PN junction diode and BJT.
CO-3	Use Op-Amp in various applications like addition and subtraction.
CO-4	Verify the truth table of various logic gates and utilize them for implementation of various Boolean functions.

Programming for Problem Solving (BCS101/BCS201)	
Course Outcome (COs)	
CO-1	To understand the fundamental of computer & C programming
CO-2	To apply various control statements
CO-3	To utilize the concept of functions
CO-4	To apply the concept of primitive & non primitive data types
CO-5	To make use of file handling and preprocessor

Programming for Problem Solving Lab (BCS151/BCS251)	
Course Outcome (COs)	
CO-1	To apply different control statements
CO-2	To apply the concepts of functions
CO-3	To apply the concepts of primitive and non primitive data types
CO-4	To apply the concepts of file handling

Fundamentals of Mechanical Engineering (BME101/BME201)	
Course Outcome (COs)	
CO-1	Explain the behaviour of deformable bodies.
CO-2	Illustrate the concepts of internal combustion engines and electric vehicles.
CO-3	Illustrate the concepts of refrigeration and air-conditioning.
CO-4	Illustrate fluid properties, conservation laws and hydraulic machinery.
CO-5	Explain error in measurement, mechatronics and its functional elements.

Environment and Ecology (BAS104/BAS204)
Course Outcome (COs)

CO-1	The student will be able to understand the ecological perspective and value of the environment.
CO-2	The students will be able to understand the significance of various natural resources and its management.
CO-3	The students will be able to understand different types of pollution and the controlling measures.
CO-4	The students will be aware of current environmental issues.
CO-5	The students will be able to understand environmental laws.

Soft Skill (BAS105/BAS205)	
Course Outcome (COs)	
CO-1	To understand the usage of grammar
CO-2	To enhance listening and speaking skills
CO-3	To understand the proper usage of reading and writing skills
CO-4	To develop presentation and interaction skills
CO-5	To understand workplace stress and leadership skills

English Language Lab (BAS155/BAS255)	
Course Outcome (COs)	
CO-1	To Understand the role of kinesics and paralanguages in individual speaking
CO-2	To enhance the confidence for public speaking with the help of various speaking activities
CO-3	To understad the basic rules of error free grammar in order to improve writing skills
CO-4	To understand comprehension skills based on Reading and Listening modules

Engineering Graphics and Design Lab (BCE151/BCE251)	
Course Outcome (COs)	
CO-1	Understand the drawing instruments and their uses with visual aspects and graphics standards of engineering design
CO-2	Draw orthographic projections of points, lines, planes and solids.
CO-3	Develop the surfaces of different sections.
CO-4	Draw Isometric Projection using Isometric scale.

Mechanical Workshop Lab (BWS151/BWS251)	
Course Outcome (COs)	
CO-1	Identify the engineering materials, tools, machines and measuring instruments.
CO-2	Make use of lathe and CNC machine for simple turning operations.
CO-3	Utilize fitting and carpentry tools for joints preparations.
CO-4	Choose the metal joining process for components manufacturing.