

Department of Basic Science Engineering

Sl.No.	Name of the Subject	CO Code	Course Outcomes
1	Calculus	MA101.1	Evaluate the convergence and divergence of infinite series
		MA101.2	Analyse maxima and minima of functions of two variables
		MA101.3	Evaluate the derivatives and integrals of real valued and vector valued functions of several variables
		MA101.4	Evaluate the area and volume using Multiple integrals
		MA101.5	Apply the knowledge of calculus of vector valued functions in physical applications
		MA101.6	Evaluation of area and volume of two dimensional and three dimensional objects using vectors
2	Differential Equations	MA102.1	Solve the homogenous differential Equations
		MA102.2	Solve the nonhomogenous differential Equations
		MA102.3	Analysing the Fourier series
		MA102.4	Analyse the Partial differential equations with respect to their order and linearity.
		MA102.5	Evaluate one dimensional wave equations
		MA102.6	Evaluate one dimensional heat equation
3	Engineering Physics	PH100.1	Apply the knowledge of harmonic oscillator and waves in circuits
		PH100.2	Interpret the importance of light phenomenon in thin film and resolution
		PH100.3	Analyse the usage of Polaroid and Superconductors in Electronics industry.
		PH100.4	Analyse the fundamental concepts in the behavior of electrons and photons.
		PH100.5	Apply the basic concept of acoustics and ultrasonics in Civil structures
		PH100.6	Apply the principles of laser and fiber optics in medical and telecommunications.
4	Engineering Chemistry	CY 100.1	Analyse the structure of compounds using IR, NMR and UV-Vis. Spectroscopic techniques
		CY 100.2	Evaluate the Electrode potentials of metal electrodes and gain the knowledge of Electrochemical cells and batteries.
		CY 100.3	Apply the use of modern instrumental techniques including thermal and chromatographic methods in Engineering materials.
		CY 100.4	Designing of economically appropriate nanomaterials, polymers, composites and antistatic materials for engineering purposes.
		CY 100.5	Understand the fundamental concepts of Fuels and lubricants.
		CY 100.6	Evaluate the hardness, amount of chloride ion and dissolved oxygen present in watersample and water treatments for purifications.

5	Engineering Mechanics	BE100.1	Apply and demonstrate the concepts of mechanics to practical Engineering problems.
		BE100.2	Determine the properties of planes and solids.
		BE100.3	Apply fundamental concepts of dynamics to apply in practical problems.
6	Engineering Graphics	BE110.1	Fundamental Engineering Drawing standards
		BE110.2	Dimensioning & preparation of neat drawings and drawing sheets
		BE110.3	Interpretation of Engineering Drawings
		BE110.4	Features of CAD software
7	Introduction to Electrical Engineering	BE101-03.01	Determine elementary concepts of electric circuits.
		BE101-03.02	Determine the basic concepts of magnetic circuits.
		BE101-03.03	Determine and solution of alternating current circuit.
		BE101-03.04	Determine electric circuits using basic laws.
		BE101-03.05	Differentiate single phase and three phase circuits
		BE101-03.06	Estimate three phase power using two wattmeter method.
8	Introduction to Electronics Engineering	BE101-04.1	Apply the knowledge about passive components including resistor, capacitor, inductors and transformers used in electronics industry
		BE101-04.2	Understand the working of diodes and transistors to demonstrate basic electronic circuits.
		BE101-04.3	Designing of biasing circuits and amplifiers
		BE101-04.4	Describe the working of JFET, MOSFET, UJT and SCR.
		BE101-04.5	Explain diode circuits and power supplies.
		BE101-04.6	Describe the basic construction of measuring instruments like digital multimeter, storage oscilloscope and function generator used in electronic measurements
	Introduction to Civil Engineering	BE101-01.1	Differentiate the types of stones, bricks and tiles.
		BE101-01.2	Differentiate stone and brick masonry.
		BE101-01.3	Understand the uses of timber and steel in building construction.
		BE101-01.4	Differentiate flooring and roofing materials.
10	Introduction to Mechanical Engineering	BE101-02.1	Explain the Carnot Engine and sources of power.
		BE101-02.2	Explain the working of steam turbine, gas turbine, hydraulic turbine and IC engine.
		BE101-02.3	Understand the working and applications of a refrigerator and air conditioner.
		BE101-02.4	Understand the casting, forging, rolling, extrusion and metal joining processes.
		BE103.1	Analyze the need and concept of Sustainability.
		BE103.2	Create an awareness about types of environmental pollution.

11	Introduction to Sustainable engineer	BE103.3	Develop a broader perspective of environmental management standards.
		BE103.4	Analyze the concept of Sustainable habitat and buildings.
		BE103.5	Create awareness about energy resources.
		BE103.6	Resolve environmental problems by finding relevance in urbanization, Poverty reductions and Industrialisation.
12	Introduction to Computing and Prob	BE101-05.1	To learn basics of digital computers
		BE101-05.2	To develop problem solving skills
		BE101-05.3	To learn programming and to solve problems using computers
13	Computer Programming	CS100.1	Identify appropriate C language constructs to solve problems
		CS100.2	Analyze problems, identify subtasks and implement them as functions/procedures
		CS100.3	Implement algorithms using efficient C programming techniques
		CS100.4	Explain the concept of file system for handling data storage and apply it for solving problems and sorting and searching
14	Basic Civil Engineering	CE100.1	Summarize the relevance of civil engineering in infrastructural development.
		CE100.2	Summarize principles of surveying and instruments used in levelling
		CE100.3	Differentiate building materials 1.bricks 2. cement 3. concrete.
		CE100.4	Determine functions of foundations.
15	Basics of Mechanical Engineering	ME100.1	Understand various energy conversion systems and strokes in IC engines
		ME100.2	Explain the Vapour Compression Refrigeration System.
		ME100.3	To understand power transmission elements, and applications of various engineering materials
		ME100.4	Understand various metal forming process and manufacturing processes
16	Basics of Electrical Engineering	EE100.01	Determine elementary concepts of electric circuits.
		EE100.02	Determine basic concepts of magnetic circuits.
		EE100.03	Analysis and solution of alternating current circuit.
		EE100.04	Differentiate power generation methods , power transmission and distribution scheme.
		EE100.05	Test the dc machines and transformer.
		EE100.06	Differentiate single phase and three phase induction motors.
		EC100.1	Apply the knowledge about passive components including resistor, capacitor, inductors and transformers used in electronics industry
		EC100.2	Understand the working of diodes and transistors to demonstrate basic electronic circuits.
		EC100.3	Designing of rectifiers and power supplies for strengthening fundamental ideas.

17	Basics of Electronics	EC100.4	Describe the basic construction of measuring instruments like digital multimeter, storage oscilloscope and function generator used in electronic measurements
		EC100.5	Understand the basic concept of basic communication systems.
		EC100.6	Distinguish entertainment electronics technologies-cable tv,cctv and dth system.