



R.T.E. SOCIETY'S  
**RURAL ENGINEERING COLLEGE,**  
**HULKOTI-582 205.**

(Approved by A.I.C.T.E.(New Delhi) Affiliated to V. T. U. Belgaiv)

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Dist. Gadag

State: Karnataka

**DEPARTMENT OF SCIENCE & HUMANITY**

**COURSE OUTCOMES**

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: Calculus & Differential Equations(21MAT11) Year: 2021-22

CO1	Student will be able to apply the knowledge of calculus to solve problems related to polar curves and its applications in determining the bentness of a curve.
CO2	Student will be able to learn the notion of partial differentiation to calculate rate of change of multivariate functions and solve problems related to composite functions and Jacobian.
CO3	Student will be able to solve first-order linear/nonlinear ordinary differential equations analytically using standard methods
CO4	Student will be able to demonstrate various models through higher order differential equations and solve such linear ordinary differential equations.
CO5	Student will be able to test the consistency of a system of linear equations and to solve them by direct and iterative methods.

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: Engineering Physics(21PHY12/22) Year: 2021-22

CO1	Student will be able to interpret the types of mechanical vibrations and their applications, the role of shock waves in various fields.
CO2	Student will be able to demonstrate the quantisation of energy for microscopic system.
CO3	Student will be able to apply laser and optical fibers in opto electronic system.
CO4	Student will be able to illustrate merits of quantum free electron theory and applications of hall effect.
CO5	Student will be able to analyse the importance of xrd and electron microscopy in nano material characterization.

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: BASIC ELECTRICAL ENGINEERING(21ELE13/23) Year: 2021-22

CO1	Student will be able to analyse basic dc and ac electric circuits.
CO2	Student will be able to explain the working principles of transformers and electrical machines.
CO3	Student will be able to explain the concepts of electric power transmission and distribution of power.
CO4	Student will be able to understand the wiring methods, electricity billing, and working principles of circuit protective devices and personal safety measures.

COURSE OUTCOMES - FIRST YEAR (COMMON TO ALL PROGRAMS)



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**DEPARTMENT OF SCIENCE & HUMANITY**

**COURSE OUTCOMES**

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: ELEMENTS OF CIVIL ENGINEERING AND MECHANICS(21CV14/24) Year: 2021-22

CO1	Student will be able to understand the various fields of civil engineering.
CO2	Student will be able to compute the resultant of a force system and resolution of a force.
CO3	Student will be able to comprehend the action for forces, moments, and other types of loads on rigid bodies and compute the reactive forces.
CO4	Student will be able to locate the centroid and compute the moment of inertia of regular and built-up sections.
CO5	Student will be able to analyze the bodies in motion.

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: Engineering Visualization(21EVN15/25) Year: 2021-22

CO1	Student will be able to understand and visualize the objects with definite shape and dimensions
CO2	Student will be able to analyze the shape and size of objects through different views
CO3	Student will be able to develop the lateral surfaces of the object
CO4	Student will be able to create a 3d view using cad software
CO5	Student will be able to identify the interdisciplinary engineering components or systems through its graphical representation.

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: ENGINEERING PHYSICS LABORATORY(21PHYL16/26) Year: 2021-22

CO1	Student will be able to understand the measuring techniques
CO2	Student will be able to operate different instruments and be capable to analyse the experimental results
CO3	Student will be able to construct and analyse the circuits



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**DEPARTMENT OF SCIENCE & HUMANITY**

**COURSE OUTCOMES**

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: BASIC ELECTRICAL LABROTARY(21EEL17/27) Year: 2021-22

CO1	Student will be able to able to verify kcl and kvl and maximum power theroom of dc circuits
CO2	Student will be able to able to compare power factor of different types of lamp
CO3	Student will be able to able to demonstrate the measurement of the impedance of electrical circuit and power consued by a 3 phase load.
CO4	Student will be able to analyse two way and three way control of lamps explain the effects of open and short circuits.
CO5	Student will be able to Interpret the suitability of earth resistance measured.

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: Communicative English(21EGH18) Year: 2021-22

CO1	Student will be able to understand and apply the fundamentals of communication skills in their communication skills.
CO2	Student will be able to identify the nuances of phonetics, intonation and enhance pronunciation skills.
CO3	Student will be able to to impart basic english grammar and essentials of language skills as per present requirement.
CO4	Student will be able to understand and useall types of english vocabulary and language proficiency.
CO5	Student will be able to adopt thetechniques of information transfer through presentation.

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: INNOVATION and DESIGN THINKING(21IDT19/29) Year: 2021-22

CO1	Student will be able to appreciate various design process procedure
CO2	Student will be able to generate and develop design ideas through different technique
CO3	Student will be able to identify the significance of reverse engineering to understand products
CO4	Student will be able to draw technical drawing for design ideas



COURSE OUTCOMES - (RESERVED COMMON TO ALL PROGRAMS)

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**DEPARTMENT OF SCIENCE & HUMANITY**

**COURSE OUTCOMES**

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: Scientific Foundations of Health(21SFH19) Year: 2021-22

CO1	Student will be able to understand health and wellness (and its beliefs)
CO2	Student will be able to acquire good health & it's balance for positive mindset
CO3	Student will be able to inculcate and develop the healthy lifestyle habits for good health.
CO4	Student will be able to create of healthy and caring relationships to meet the requirements of mnc and lpg world
CO5	Student will be able to adopt the innovative & positive methods to avoid risks from harmful habits in their campus & outside the campus & to positively fight against harmful diseases for good health through positive mindset.

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: ADVANCED CALCULUS AND NUMERICAL METHODS(21MAT21) Year: 2021-22

CO1	Student will be able to apply the concept of change of order of integration and change of variables to evaluate multiple integrals and their usage in computing the area and volume.
CO2	Student will be able to illustrate the applications of multivariate calculus to understand the solenoidal and irrotational vectors and also exhibit the inter dependence of line, surface and volume integrals.
CO3	Student will be able to illustrate the applications of multivariate calculus to understand the solenoidal and irrotational vectors and also exhibit the inter dependence of line, surface and volume integrals.
CO4	Student will be able to apply the knowledge of numerical methods in modelling of various physical and engineering phenomena.
CO5	Student will be able to solve first order ordinary differential equations arising in engineering problems.

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: ENGINEERING CHEMISTRY(21CHE12/22) Year: 2021-22

CO1	Student will be able to understand the electrochemical energy systems such as electrodes and batteries.
CO2	Student will be able to understand the fundamental concepts of corrosion, its control and surface modification methods namely electroplating and electroless plating
CO3	Student will be able to enumerate the importance, synthesis and applications of polymers, understand properties and application of nanomaterials.
CO4	Student will be able to describe the principles of green chemistry, understand properties and application alternative fuels.

COURSE OUTCOMES - FIRST YEAR (COMMON TO ALL PROGRAMS)



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**COURSE OUTCOMES**

CO5	Student will be able to illustrate the fundamental principles of water chemistry, applications of volumetric and analytical instrumentation.
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COURSE OUTCOMES - FIRST SEMESTER (COMMON TO ALL PROGRAMS)

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**COURSE OUTCOMES**

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: Problem Solving Through Programming in C(21PSP13/23) Year: 2021-22

CO1	Student will be able to elucidate the basic architecture and functionalities of a computer and also recognize the hardware parts.
CO2	Student will be able to apply programming constructs of c language to solve the real world problem
CO3	Student will be able to explore user-defined data structures like arrays in implementing solutions to problems like searching and sorting
CO4	Student will be able to explore user-defined data structures like structures, unions and pointers in implementing solutions
CO5	Student will be able to design and develop solutions to problems using modular programming constructs using functions

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: BASIC ELECTRONICS & COMMUNICATION ENGINEERING(21ELN14/24) Year: 2021-22

CO1	Student will be able to describe the concepts of electronic circuits encompassing power supplies, amplifiers and oscillators.
CO2	Student will be able to present the basics of digital logic engineering including data representation, circuits and the microcontroller system with associated sensors and actuators.
CO3	Student will be able to discuss the characteristics and technological advances of embedded systems.
CO4	Student will be able to relate to the fundamentals of communication engineering spanning from the frequency spectrum to the various circuits involved including antennas.
CO5	Student will be able to explain the different modes of communications from wired to wireless and the computing involved.

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: ELEMENTS OF MECHANICAL ENGINEERING(21EME15/25) Year: 2021-22

CO1	Student will be able to understand basic concepts of mechanical engineering in the fields of energy and its utilization, materials technology, manufacturing techniques, and transmission systems through demonstrations.
CO2	Student will be able to understand the application of energy sources in power generation and utilization, engineering materials, manufacturing, and machining techniques leading to the latest advancements and transmission systems in day to day activities
CO3	Student will be able to apply the skills in developing simple mechanical elements and processes

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Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: ENGINEERING CHEMISTRY LABORATORY(21CHEL16/26) Year: 2021-22

CO1	Student will be able to determine the pKa and coefficient of viscosity of a given organic liquid.
CO2	Student will be able to estimate the amount of substance present in the given solution using potentiometer conductometric and colorimetric.
CO3	Student will be able to determine the total hardness and chemical oxygen demand in the given solution by volumetric analysis method
CO4	Student will be able to determine the total hardness and chemical oxygen demand in the given solution by volumetric analysis method
CO5	Student will be able to demonstrate flame photometric estimation of sodium & potassium and the synthesis of nanomaterials by precipitation method.

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: COMPUTER PROGRAMMING LAB(21CPL17/27) Year: 2021-22

CO1	Student will be able to define the problem statement and identify the need for computer programming
CO2	Student will be able to make use of c compiler, ide for programming, identify and correct the syntax and syntactic errors in programming
CO3	Student will be able to develop algorithm, flowchart and write programs to solve the given problem
CO4	Student will be able to demonstrate use of functions, recursive functions, arrays, strings, structures and pointers in problem solving
CO5	Student will be able to document the inference and observations made from the implementation

Branch : DEPARTMENT OF SCIENCE & HUMANITY Semester : 1/2 Scheme : 2021

Course: Professional Writing Skills in English(21EGH28) Year: 2021-22

CO1	Student will be able to understand and identify the common errors in writing and speaking.
CO2	Student will be able to achieve better technical writing and presentation skills.
CO3	Student will be able to read technical proposals properly and make them to write good technical reports.
CO4	Student will be able to acquire employment and workplace communication skills.
CO5	Student will be able to learn about techniques of information transfer through presentation in different level

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