DNR COLLEGE OF ENGINEERING & TECHNOLOGY BHIMAVARAM,

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES

Program Name:	I B.TECH-MECHANICAL ENGINEERING	**Class / Sem**	I/I
Regulation	R20		

CO Statement -Calculus & Differential Equations- M1
Determine the sequence whether it is convergent or divergent by using the appropriate tests
Analyze mean value theorems in real life problems.
Discuss linear differential equations with constant coefficients, complementary function and particular integrals.
Solve the differential equations related to various engineering fields.
Explain the different types of partial differential equations.
Apply the concept of multiple integrals in practical problem

CO Statement-Engineering Physics- EP
Explain the principles and applications of wave optics.
Interpret the development and applications of Laser light and its uses in optical fiber communication.
Classify the properties of dielectric and magnetic materials for various applications.
Use the concepts of ultrasonics and acoustics in different fields of engineering and architectural acoustics
Apply powder method to measure the crystallinity of a solid
Analyze the applications to solve practical problems related to materials used for engineering

CO Statement-programming for problem solving
Describe an algorithms and to draw flowcharts for solving problems
Explain structure of C program
Use of Operators ,Two-way/ and Multi-way selection in programs.
Classify use of Arrays and Strings in C program.
Evaluate the concept of Pointers and their different applications.
Illustrate the concept of Functions and File I/O operations and to develop modular reusable code.

CO Statement-English
Identify the context and pieces of specific information by understanding and responding to the written and spoken purpose thoroughly.
Apply suitable strategies for skimming and scanning to get the main idea of a text and locate specific information.
Construct sentences using proper grammatical structures and correct word forms.
Observe the principles of writing to paragraphs, arguments, essays and formal/informal communication.
Build confidence and adapt themselves to the social and public descriptions, discussions and presentations.
Support the importance of vocabulary and using them effectively in writing technical articles and presentations of any genre.

CO Statement –ENGINEERING DRAWING
Prepare drawings as per standards (BIS).
Solve specific geometrical problems involving points and lines.
Solve specific geometrical problems in plane geometry involving plane figures.
Solve specific geometrical problems in plane geometry involving solid figures.
Produce orthographic projection of engineering components working from pictorial drawings
understand the basic AUTOCAD commands

CO Statement –ENGINEERING PHYSCIS LAB
Operate optical instruments like microscope and spectrometer. To determine thickness of a hair/paper with concept of interference.
Determine of radius of a given plano convex lens by Newton's rings and estimate the wavelength of different colors using diffraction grating.
Determine of dispersive power of the prism. To determine the wavelength of Laser light using diffraction grating.
Determine the rigidity modulus of a wire and verify the laws of sonometer. Determine the acceleration due to gravity using compound pendulum.
Study the variation of B versus H by magnetizing the magnetic material (B-H curve) and to plot the intensity of the magnetic field of circular coil carrying current with distance.
Determine the dielectric constant using charging and discharging method. Determine the frequency of a tuning fork by Melde's experiment.

CO Statement –PROGRAMMING FOR PROBLEM SOLVING LAB
Explain the Basic concepts of variables and data types
Use of Operators and Expressions
Demonstrate the usage of Conditional and Unconditional statements
Classify the functions and relate functions with respect to arrays and strings
Describe the concept of pointers and structures
Demonstrate the usage of files and Command Line Arguments

CO Statement –ENGLISH LANGUAGE LAB
Remember and understand the different aspects of English language proficiency with emphasis on LSRW skills.
Apply communication skills through various language learning activities.
Analyze the English speech sounds, stress, rhythm, intonation and syllable division for better listening comprehension.
Exhibit an acceptable etiquette essential in social settings.
Get awareness on mother tongue influence and neutralize it in order to improve fluency and clarity in spoken English.
Construct formal and informal situations to test their basics of English.

CO Statement –ENVIRONMENTAL SCIENCE
Understand and evaluate the global scale of environmental problems.
Recognize different types of resources like land, water minerals and energy and also about the effects of environment by the usage of these resources.
Describe the ecosystem diversity, its values and also about the importance of the endemic species and different techniques involved in its conservation
Identify different types of pollutions and their control technologies, Waste water treatment, Bio medical waste management etc.,
Explain various environmental acts and disaster management.
Discuss environmental assessment and the stages involved in EIA and the environmental audit.