DEPARTMENT OF APPLIED SCIENCE & HUMANITIES

Course Outcomes Course – Engineering Mathematics-I: (KAS103T)		BL
S. No.	Course Outcome/ Unit	
1	Remember the concept of matrices and apply for solving linear simultaneous equations.	1.3
2	Understand the concept of limit , continuity and differentiability and apply in the study of Roles , Lagrange's and Cauchy mean value theorem and Leibnitz theorems .	2.3
3	Identify the application of partial differentiation and apply for evaluating maxima, minima, series and Jacobians.	3.5
4	Illustrate the working methods of multiple integral and apply for finding area, volume, centre of mass and centre of gravity.	2.3
5	Remember the concept of vector and apply for directional derivatives, tangent and normal planes. Also evaluate line,	2.5
	surface and volume integrals.	

COURSE OUTCOME PHYSICS : KAS101T/ KAS102T		
S.No.	COURSE OUTCOMES (CO)/UNITS	
CO1	Understand & Applying Students will be able to recall Newton's law of motion as well as explain and predict relativistic mechanics in real world applications, Einstein's postulates and their applicability in different applications.	BL 3
CO2	**Evaluate & Analyze** Measure molecular /system properties such as surface tention, viscosity, conductance of solution,chloride content in water.Students will be able to identify Maxwell's equations in free space and non-conducting medium, properties of electromagnetic waves and applying the propagation mechanism of communication system through e-m waves.	BL4
CO3	Students will be able to differentiate classical mechanics and quantum mechanics,Summarize the basics of microscopic physics and use it to solve various quantummechanical problems.	BL 3
CO4	Students will be able to recall the concept of interference and diffraction, demonstrate the ability to evaluate wavelength of monochromatic source and white light using Newton's ring experiment & diffraction Grating.	BL 3
CO5	Students will be able to compare and categorize the Laser and Fiber with losses,	BL 3

Course 1 - Engineering Chemistry: KAS102T / KAS202T

COURSE OUTCOMES (COs)/UNITS		Knowledge Level
S. No.	By the end of the course student will be able to	(Blooms Level)
CO1	**Remember,** ***Understand & Applying*** the use of different analytical instruments.	**L1** : Remember **L2:** Understand **L3** : Applying
CO2	***Evaluate & Analyze*** Measure molecular /system properties such as surface tension, viscosity, conductance of solution, chloride content in water.	**L5** : EvaluateL **L4** : Analyze **L4** : Analyze
CO3	***Evaluate*** the hardness of water.	**L5** : Evaluate
CO4	***Synthesize, create & Analyze*** the rate constant of reaction.	**L4** : Analyze **L6:** Synthesis **L6:** Synthesis
CO5	***Understand & Apply*** the basic knowledge on structure, synthesis, properties and application of different types of polymers.	**L2:** Understand **L3** : Applying **L3** : Applying

Course Outcomes		BL
Course - Emerging Domain in Electronics Engineering:(KEC101T)		
S. No.	**Course Outcome/ Unit**	
1	**Identify different coordinate systems and their applications in electromagnetic field theory to establish a relation between any two systems using the vector calculus.**	3
2	**Explain the concept of static electric field, current and properties of conductors.**	2
3	**Express the basic concepts of ground, space, sky wave propagation mechanism.**	4
4	**Demonstrate the knowledge of antenna fundamentals and radiation mechanism of the antenna.**	5
5	**Analyse and design different types of basic antennas.**	4

Course Outcomes		BL
Course - **Engineering Mathematics-I: (KBT101T)**		
S. No.	**Course Outcome/ Unit**	
1	Understand the concept of algebra for finding the solution of quadratic equation in complex system, algebraic solution of linear inequalities in one variable and create graphical solution of linear inequalities in two variables.	3.5
2	Understand the concept of permutation and Combination to create the formulation and their connection and apply for evaluating sum and means of AP and GP and some special series.	5.4
3	Remember the concept of two and three dimensional geometry to apply to find conic section (circle, ellipse, parabola, hyperbola) and to evaluate coordinate plane and distance between two points.	1.4
4	Apply the concept of derivative to evaluate and analyze rate of change, slope , derivative of polynomial and trigonometric function	2.3
5	Remember the concept of derivative to evaluate derivative of composite function, inverse trigonometric function, implicit, composite and exponential functions and apply in Rolle's and Lagranges'theorems and their application	1.5

Course Outcomes		BL
Course - Fundamental of Mechanical Engineering: (KME101T)		
S. No.	**Course Outcome/ Unit**	
1	Analyse the concept of stress and strain, factor of safety, beams and apply the concepts of strength of material for safe design	4
2	Explain the basic component and working of internal combustion engines, electric and hybrid vehicles, refrigerator and heat pump, air conditioning.	2
3	Interpret fluid properties, conservation laws, and hydraulic machinery and apply the same in real life systems.	2
4	Explain the working principle of different measuring instrument with the knowledge of accuracy, error and calibration, limit, fit, Tolerance and control system.	2
5	Summarize concept of mechatronics with their advantages, scope and Industrial application, the different types of mechanical Actuation system, the different types of hydraulic and pneumatic systems.	2

Course Outcomes	BL
Course - Emerging Domain in Electronics Engineering:(KEC101T)	

S. No.	Course Outcome/ Unit	
1	**Identify different coordinate systems and their applications in electromagnetic field theory to establish a relation between any two systems using the vector calculus.**	3
2	**Explain the concept of static electric field, current and properties of conductors.**	2
3	**Express the basic concepts of ground, space, sky wave propagation mechanism.**	4
4	**Demonstrate the knowledge of antenna fundamentals and radiation mechanism of the antenna.**	5
5	**Analyse and design different types of basic antennas.**	4

Course Outcomes		BL
Course - Artificial Intelligence(KMC- 101)		
S. No.	Course Outcome/ Unit	
1	Understand the evolution and various approaches of AI	2
2	Understand data storage, processing, visualization, and its use in regression, clustering etc.	2
3	Understand natural language processing and chatbots	2
4	Understand the concepts of neural networks	2
5	Understand the concepts of face, object, speech recognition and robots	2

Course Outcomes		BL
Course - Programming for Problem Solving (KCS 101 T)		
S. No.	Course Outcome/ Unit	
1	To develop simple algorithms for arithmetic and logical problems	2.3
2	To translate the algorithms to programs & execution (in C language).	3
3	To implement conditional branching, iteration and recursion	3
4	To decompose a problem into functions and synthesize a complete program using divide and conquer approach.	4
5	To use arrays, pointers and structures to develop algorithms and programs.	2.3

Course Outcomes		BL
Course - SOFT SKILLS-II: (KNC 201)		
S. No.	Course Outcome/ Unit	
1	Students will be able to converse well with effective LSRW skills in English.	3
2	Students will evaluate the importance of conversation in their personal and professional domain and apply it for extending their professional frontiers.	5
3	Students will learn to apply motivation skills for their individual and professional excellence	3
4	Students will utilize their teamwork and their interpersonal communication skills to survive and excel at their work-place.	1
5	Students will learn to evaluate creativity for their professional innovation and critical thinking for their competence.	5
Course Outcomes		BL
Course – Fundamental of Mechanical Engineering: (KME201T)		
S. No.	Course Outcome/ Unit	

1	Analyse the concept of stress and strain, factor of safety, beams and apply the concepts of strength of material for safe design.	4
2	Explain the basic component and working of internal combustion engines, electric and hybrid vehicles, refrigerator and heat pump, air conditioning.	2
3	Interpret fluid properties, conservation laws, and hydraulic machinery and apply the same in real life systems.	3
4	Explain the working principle of different measuring instrument with the knowledge of accuracy, error and calibration, limit, fit, Tolerance and control system.	2
5	Summarize concept of mechatronics with their advantages, scope and Industrial application, the different types of mechanical Actuation system, the different types of hydraulic and pneumatic systems.	2

Course Outcomes		BL
Course - BASIC ELECTRICAL ENGINEERING (KEE201T)		
S. No.	**Course Outcome/ Unit**	
1	Understand the concepts of electric circuit elements and network solutions with DC supply using various network theorems.	2
2	Analyse the steady state behaviour of single phase and three phase AC electrical circuits.	3
3	Analyse the various aspects of performances and equivalent circuit design for Transformers.	2
4	Illustrate the working principles of DC Motor, induction motor, synchronous machine as well as DC machine and employ them in different area of applications.	3
5	Describe the components of low voltage electrical installations and perform elementary calculations for energy consumption.	2
Course Outcomes		BL
Course- Engineering Mathematics-II: (KAS203T)		
S. No.	**Course Outcome/ Unit**	
1	Understand the concept of differentiation and apply for solving differential equations.	2.3
2	Remember the concept of definite integral and apply for evaluating surface areas and volumes.	3,5,1
3	Understand the concept of convergence of sequence and series. Also evaluate Fourier series.	2.5
4	Illustrate the working methods of complex functions and apply for finding analytic functions.	3
5	Apply the concept of complex functions for finding Taylor's series, Laurent's series and evaluation of definite integrals.	3.5

Course Outcomes		BL
Course – Emerging Domain inElectronics Engineering:(KEC201T)		
S. No.	**Course Outcome/ Unit**	
1	**Identify different coordinate systems and their applications in electromagnetic field theory to establish a relation between any two systems using the vector calculus.**	3
2	**Explain the concept of static electric field, current and properties of conductors.**	2
3	**Express the basic concepts of ground, space, sky wave propagation mechanism.**	4
4	**Demonstrate the knowledge of antenna fundamentals and radiation mechanism of the antenna.**	5
5	**Analyse and design different types of basic antennas.**	4
Course Outcomes		BL

Course - Emerging Technology for Technology (KMC 202)		
S. No.	**Course Outcome/ Unit**	
1	Understand the concepts of internet of things, smart cities and industrial internet of things	2
2	Understand the concepts of cloud computing	2
3	Understand the concepts of block chain, cryptocurrencies, smart contracts	2
4	Understand design principles, tools, trends in 3 D printing and drones	2
5	Understand augmented reality (AR), virtual reality (VR), 5G technology, brain computer interface and human brain	2

Course Outcomes		BL
Course - Engineering Mathematics-I: (KBT201T)		
S. No.	**Course Outcome/ Unit**	
1	Understand the concept of algebra for finding the solution of quadratic equation in complex system, algebraic solution of linear inequalities in one variable and create graphical solution of linear inequalities in two variables	3.5
2	Understand the concept of permutation and Combination to create the formulation and their connection and apply for evaluating sum and means of AP and GP and some special series	4.5
3	Remember the concept of two and three dimensional geometry to apply to find conic section (circle, ellipse, parabola, hyperbola) and to evaluate coordinate plane and distance between two points.	1.4
4	Apply the concept of derivative to evaluate and analyse rate of change, slope , derivative of polynomial and trigonometric function	2.3
5	Remember the concept of derivative to evaluate derivative of composite function, inverse trigonometric function, implicit, composite and exponential functions and apply in Rolle's and Lagranges'theorems and their application	5.6