Meerut Institute of Engineering and Technology, Meerut

Statements of Course Outcomes (COs) and Mapping with Program Outcomes (POs): Dept. of B.Tech First Year: 2019-20

BKL # K1 – Remember, K2 – Understand, K3 – Apply, K4 – Analyze, K5 – Evaluate, K6 – Create

S. No.	Sub Code	COx	Statement of Course Outcomes (COs)	Kx	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
			Statement of Course Outcomes (COs) Upon completion of topic concerned, students will be able to :	Blooms Knowledge Level	Engineering knowledge	Problem Analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The Engineer and Society	Environment & sustainability	Ethics	Individual and team work	Communications	Project management and finance	Life Long Learning
1	KAS101/201	CO-1	Understand the concept of theory of relativity and their related concepts.	K2	3	2										3
		CO-2	To solve the engineering problems based on Electromagnetic Field Theory.	K3	3	3	2									3
		CO-3	To solve the limiting problems of Classical Physics using concepts of Quantum Mechanics.	K3	3	2										3
		CO-4	Understand the concept of wave nature related phenomenon and resolving power of an optical instrument.	K2	3	3										3
		CO-5	Understand basic concept of LASER and fiber optics.	K2	3	3	3									3
			KAS101/201 (Engg. Physics)		**3.0**	**2.6**	**2.5**									**3.0**
2	KAS151/251	CO-1	Make use of optical methods to determine the properties of light.	K2	3	2						2	3			2
		CO-2	Assess the properties of semi conductor using electrical methods.	K3	2		2					2	3			2
		CO-3	Determine specific resistance of material using Carey Foster's bridge method.	K3	3							2	3			2
		CO-4	Examine the Stefan's law using electrical method.	K2	2	2						2				
		CO-5	Intrepret variation of magnetic field for a current carrying circular coil and ferro magnetic materials.	K3	3		2					2				
			KAS151/251 (Engg. Physics Lab)		**2.60**	**2.00**	**2.00**					**2.00**	**3.00**			**2.00**
3	KAS102/202	CO-1	Understanding atomic and molecular structure from nanoscale to macromolecules.	K2	3											2
		CO-2	Apply the concept of spectroscopy for compound identification and structural analysis.	K3	3	2										
		CO-3	Apply the concepts of electrochemistry to corrosion, batteries and phase rule .	K3	3	2										2
		CO-4	Analyse the water sample and coal samples for their hardness and calorific values respectively.	K3	3	2				2	2					2
		CO-5	Attain the chemical knowledge on the concept of polymers and polymerization.	K2	3					2	2					2
			KAS102/202 (Engg. Chemistry)		**3.00**	**2.00**				**2.00**	**2.00**					**2.00**
		CO-1	Perform experiments with different analytical instruments for chemical properties.	K3	2					2	2		2			2
		CO-2	Compare molecular / system properties such as surface tension, viscosity with water.	K3	2											

4	KAS152/252	CO-3	Measure alkalinity, hardness and chloride content of water.	K2	3	2				2	2		2			2
		CO-4	Determine the iron content and available chlorine in given sample.	K3	2						2					
		CO-5	Know the fundamental concepts of the preparation of phenol formaldehyde & urea formaldehyde resin	K2	2	2				2	2					2
		KAS152/252 (Engg. Chemistry Lab)			**2.20**	**2.00**				**2.00**	**2.00**		**2.00**			**2.00**
5	KAS103	CO-1	Apply the concept of matrices for solving the linear simultaneous equations.	K3	3	3	3	3								2
		CO-2	Apply the concept of limit, continuity and differentiability in the study of Rolle's, Lagrange's, Cauchy Mean Value theorem and Leibnitz theorems .	K3	3	3	3	3								2
		CO-3	Apply the concept of partial differentiation in finding extreme value, expansion of functions and Jacobians.	K3	3	3	3	3								2
		CO-4	Apply multiple integrals for finding area, volume, centre of mass and centre of gravity.	K3	3	3	3	3								2
		CO-5	Applying the concept of vector differentiation and integration to determine line, surface and volume integrals.	K3	3	3	3	3								2
		KAS103 (Engg. Maths I)			**3.00**	**3.00**	**3.00**	**3.00**								**2.00**
6	KAS203	CO-1	Apply the concept of differentiation for solving differential equations.	K3	3	3	3	3								2
		CO-2	Apply the concept of definite integral for evaluating surface areas and volumes.	K3	3	3	3	3								2
		CO-3	Application of identifying the convergence of sequence and series and expension of Fourier series	K3	3	3	3	3								2
		CO-4	Application of complex functions to determine analytic functions	K3	3	3	3	3								2
		CO-5	Apply the comlex functions for finding Taylor's series, Laurent's series and definite integrals.	K3	3	3	3	3								2
		KAS203 (Engg. Maths II)			**3.00**	**3.00**	**3.00**	**3.00**								**2.00**
7	KAS104/204	CO-1	Be acquainted with specific dimensions of communication skills.	K2	2		3						2	2		
		CO-2	Create substantial base by the formation of strong professional vocabulary.	K3	2											2
		CO-3	Apply communication skills at their work place for writing purposes.	K3		2	3									
		CO-4	Cultivate relevant technical style of communication & presentation.	K3				2								
		CO-5	Apply techniques for developing interpersonal communication skills and positive attitude.	K3		2	3	2					3	3	3	
		KAS104/204 (Professional English)			**2.00**	**2.00**	**3.00**	**2.00**					**2.50**	**2.50**	**3.00**	**2.00**
8	KAS154/254	CO-1	Make use of converstional skills for effective group talks and interviews.	K3									2	2		2
		CO-2	Develop communication and presentation skills for technical papers/project reports/proposals in seminars/conferences/workshops/theme presentations.	K2										2		2
		CO-3	Build conversational skills for public/individual speaking /conferencing/role play/JAM /arguementation.	K2										2		2
		CO-4	Make use of comprehension skills based on reading and listening practical's on model audio.	K3										2		2
		CO-5	Execution social skills for a given work station.	K3										2		2

		KAS154/254 (Professional English Lab)												**2.00**	**2.00**		**2.00**
9	KEE101/201	CO-1	Apply the concepts of KVL/KCL and network theorems in solving DC circuits.	K3	3	3	3										2
		CO-2	Analyze the steady state behavior of single phase and three phase AC electrical circuits.	K2	3	3	3										2
		CO-3	Identify the application areas of a single phase two winding transformer and calculate their efficiency.	K2	3	2	3										2
		CO-4	Illustrate the working principles of induction motor, synchronous machine and DC machine.	K2	3	2											2
		CO-5	Describe the components of low voltage electrical installations.	K2	3	2											3
		KEE101/201 (Basic Electrical Engg.)			**3.00**	**2.40**	**3.00**										**2.20**
10	KEE151/251	CO-1	Apply KVL/KCL and network theorums in DC circuits.	K3	2	2	2	2									
		CO-2	Demonstrate the behaviour of single phase and three phase AC circuits	K3	3	2	2	2		2							2
		CO-3	Illustrate and study the parameters of single phase transformer.	K3	3	3	2	2		2							2
		CO-4	Analysing speed control of AC and DC Motor	K3	3	3	2	2		2							2
		CO-5	Determine energy consumption (kWH)using single phase induction type energy meter.	K3	3	2	2	2									2
		KEE151/251 (Basic Electrical Engg. Lab)			**2.80**	**2.40**	**2.00**	**2.00**		**2.00**							**2.00**
11	KCS101/201	CO-1	Translate the algorithms to programs & perform its execution in C language.	K3	3												3
		CO-2	Implement conditional branching, instructions along with operators.	K3	3	3	3										3
		CO-3	Use looping control instructions to decompose a problem into function.	K3	3	3	3										3
		CO-4	Apply arrays and structures to develop programs.	K3	3	3	3										3
		CO-5	Utilize pointer, file handling, dynamic memory allocation to solve problems.	K3	3	3	3										3
		KCS101/201			**3.00**	**3.00**	**3.00**										**3.00**
12	KCS151/251	CO-1	Solve simple problems based on arithmetic expressions using operators.	K3	2	2	2										
		CO-2	Implement conditional branching instructions to develop programs.	K3	3	3	3										
		CO-3	Use looping control instructions and functions to solve complex problems.	K3	3	3	3										3
		CO-4	Design solutions by using arrays and structures to develop programs.	K3	3	3	3										3
		CO-5	Utilize pointer, file handling, dynamic memory allocation to solve problems.	K3	3	3	3										3
		KCS 151P/251P			**2.80**	**2.80**	**2.80**										**3.00**
		CO-1	Use various engineering materials, tools, machines and measuring equipments.	K3	2					2		2	2				2
		CO-2	Perform machine operations in lathe and CNC machine.	K3	3				2	2		2	3				2

13	KWS101/201	CO-3	Perform manufacturing operations on components in fitting and carpentry shop.	K3	2					2		2	2			2
		CO-4	Perform operations in welding, moulding and casting	K3	3					2	2	2	2			2
		CO-5	Fabricate a job by 3D printing manufacturing technique.	K3	2				2	2		2	3			2
		KWS101/201 (Workshop Practices)			**2.40**				**2.00**	**2.00**	**2.00**	**2.00**	**2.40**			**2.00**
14	KCE101/201	CO-1	Use scales and draw projections of objects.	K2	3									2		
		CO-2	Explain views of solids and their sectional surfaces.	K2	3	2								2		
		CO-3	Analyze and draw isometric projections of objects.	K3	3									2		
		CO-4	Demonstrate orthographic representation of perspective views using modern tools.	K2	3		2		3				2	2		
		CO-5	Apply AutoCAD software for creation of engineering drawing and models.	K3	3		2		3				2	2		2
		KCE101/201 (Engg. Graphics and Design)			**3.00**	**2.00**	**2.00**		**3.00**				**2.00**	**2.00**		**2.00**