KIET GROUP OF INSTITUTIONS, DELHI-NCR, GHAZIABAD
B. TECH. I YEAR & APPLIED SCIENCES
COs WITH BLOOMS, B. TECH. I YEAR (2022-23)

Course Outcomes		Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
Engineering Physics: (BAS 101/201)			
S. No.	**Course Outcome/ Unit**		
After completion of the course, the student will be able to:			
1	Apply the wave-particle duality in Quantum mechanics.	Apply	Conceptual, Procedural
2	Apply Maxwell's equations in electromagnetic field theory	Apply	Conceptual, Procedural
3	Apply the concept of interference and diffraction in wave optics.	Apply	Conceptual, Procedural
4	Illustrate the functioning, properties and applications of optical fibers and LASERS.	Apply	Conceptual, Procedural
5	Illustrate the properties and applications of superconducting materials and nanomaterials.	Apply	Conceptual, Procedural

Course Outcomes		Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
Engineering Chemistry: (BAS 102/202)			
S. No.	**Course Outcome/ Unit**		
After completion of the course, the student will be able to:			
1	Articulate the theoretical principles of Atomic and molecular structure, Chemistry of advanced Materials and Green Chemistry.	Articulate	Conceptual, Procedural
2	Apply the fundamental concepts of spectral techniques and stereochemistry for molecular structure identification.	Apply	Conceptual, Procedural
3	Analyze working of batteries, corrosion and Chemistry of engineering materials.	Analyze	Conceptual, Procedural
4	Analyze water impurities, boiler troubles in industry, calorific values of fuel and its environmental impact.	Analyze	Conceptual, Procedural
5	Apply the concept of polymers, Polymer Blends, composites and Organometallic compounds for industrial applications.	Apply	Conceptual, Procedural

Course Outcomes		Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
Engineering Mathematics-I: (BAS 103)			
S. No.	**Course Outcome/ Unit**		
After completion of the course, the student will be able to:			
1	Understand concept of rank , inverse , eigen values and eigen vectors and apply to solve engineering problem	Apply	Conceptual, Procedural
2	Understand the concept of successive differentiation and partial differentiation and apply to create curves	Apply	Conceptual, Procedural
3	Apply knowledge of partial differentiation in extrema, series expansion of function, approximation of errors and Jacobian	Apply	Conceptual, Procedural
4	Understand the concept of double, triple and improper integral and apply it to evaluate area and volume	Apply	Conceptual, Procedural
5	Apply the concept of vector calculus to analyze and evaluate directional derivative, lines, surface and volume integrals.	Apply	Conceptual, Procedural

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Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
Engineering Mathematics-II: (BAS 203)		
S. No. / **Course Outcome/ Unit**		
After completion of the course, the student will be able to:		
1. Solve the ordinary differential equation of nth order with constant and variable coefficients arising in Engineering problems	Apply	Conceptual, Procedural
2. Solve ordinary and simultaneous differential equations using Laplace and Inverse Laplace transform	Apply	Conceptual, Procedural
3. Apply the concept of convergence of series and expansion of function using Fourier series	Apply	Conceptual, Procedural
4. Apply the concept of Limit, Continuity and differentiability in analyticity, Harmonicity of function and in conformal transformation	Apply	Conceptual, Procedural
5. Apply the concept of Cauchy Integral theorem, Cauchy Integral formula, singularity and calculus of residue in integrations	Apply	Conceptual, Procedural

Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
Fundamentals Electrical Engineering: (BEE 101/201)		
S. No. / **Course Outcome/ Unit**		
After completion of the course, the student will be able to:		
1. Understand the concepts of electric circuit solutions with DC supply using various network theorems	Understand	Conceptual
2. Apply the concepts of electrical circuits with AC supply in single and three phase system	Apply	Conceptual, Procedural
3. Analyze the equivalent circuit and performance of single phase AC transformer	Analyze	Conceptual, Procedural
4. Illustrate the working principle of induction motors, synchronous machines and DC machines	Analyze	Conceptual, Procedural
5. Describe the components of electrical system installations	Understand	Factual, Procedural

Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
Fundamental of Electronics Engineering (BEC 101/ 201)		
S. No. / **Course Outcome/ Unit**		
After completion of the course, the student will be able to:		
1. **Apply** the concept of PN Junction and devices for solving diode circuit problems.	Apply	Factual, Conceptual
2. **Demonstrate** the concept of BJT, JFET and MOSFET and solve problems on BJT and FETs.	Apply	Factual, Conceptual
3. **Analyze** the linear and non-linear applications of Operational amplifiers.	Analyze	Factual, Conceptual
4. **Perform** number systems conversions, binary arithmetic and minimize logic functions.	Apply	Factual, Conceptual
5. **Acquire the** fundamental concepts of communication technologies and use them to solve problems in Communication.	Apply	Factual, Conceptual

Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
Programming for Problem Solving: (BCS 101/ 201)		
S. No. **Course Outcome/ Unit**		
After completion of the course, the student will be able to:		
1 Understand algorithms and flow chart for the different types of problems	Understand	Conceptual
2 Translate the algorithms to programs & execution (in C language).	Apply	Conceptual, Procedural
3 Implement conditional branching, iteration, and recursion	Apply	Conceptual, Procedural
4 Decompose a problem into functions and synthesize a complete program using divide and conquer approach.	Analyze	Conceptual, Procedural
5 Use arrays, pointers and structures to develop algorithms and programs.	Apply	Conceptual, Procedural

Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
Fundamental of Mechanical Engineering (BME 101/ 201)		
S. No. **Course Outcome**		
After completion of the course, the student will be able to:		
1 Apply the concept of force resolution and stress and strain to solve basic Problems.	Apply	Procedural
2 Understand the construction details and working of internal combustion engines, electric vehicle, and hybrid vehicles.	Understand	Conceptual
3 Explain the construction detail and working of refrigerator, heat pump and airconditioner.	Understand	Conceptual
4 Understand fluid properties, conservation laws and hydraulic machinery used in real life.	Understand	Conceptual
5 Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application.	Understand	Conceptual

Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
Environment and Ecology (BAS104/204)		
S. No. **Course Outcome / Unit**		
After completion of the course, the student will be able to:		
1 Gain knowledge about environment and ecosystem towards sustainable development.	Remember	Conceptual
2 Learn about natural resources, its importance and environmental impacts on human interference, conservation of biodiversity.	Understand	Conceptual, Procedural
3 Gain knowledge about environmental pollution, its impacts on man & environment also control measures.	Understand	Conceptual, Procedural
4 Acquire values and ecofriendly attitudes towards understanding complex sustainable challenges, solving current environmental problems and its mitigation.	Understand	Conceptual, Procedural
5 Understand the environmental policies and legislation (scientific, social, economic and legal) for environmental protection, social equity and conservation of biodiversity.	Understand	Conceptual, Procedural

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	Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
	Soft Skills (BAS105)		
S. No.	**Course Outcome / Unit**		
After completion of the course, the student will be able to:			
1	Write professionally in simple and correct English.	Apply	Factual, Conceptual
2	Demonstrate(Apply) active listening with comprehension, and the ability to write clear and well- structured emails and proposals.	Apply Create	Factual, Conceptual, Procedural
3	Learn the use of correct body language and tone of voice to enhance communication.	Remember Understand	Factual, Conceptual, Procedural
4	Acquire the skills necessary to communicate effectively and deliver presentations with clarity and impact	Apply	Conceptual, Procedural
5	Understand and apply some important aspects of core skills, like Leadership and stress management.	Understand	Conceptual, Procedural

	Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
	Soft Skills (BAS205)		
S. No.	**Course Outcome / Unit**		
After completion of the course, the student will be able to:			
1	Write professionally in simple and correct English.	Apply	Factual, Conceptual
2	Demonstrate(Apply) active listening with comprehension, and the ability to write clear and well- structured emails and proposals.	Apply	Factual, Conceptual, Procedural
3	Learn the use of correct body language and tone of voice to enhance communication.	Understand	Factual, Conceptual, Procedural
4	Acquire the skills necessary to communicate effectively and deliver presentations with clarity and impact	Apply	Conceptual, Procedural
5	Understand and apply some important aspects of core skills, like Leadership and stress management.	Understand	Conceptual, Procedural

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S. No.	Course Outcomes Engineering Physics Lab: (BAS 151/ 251) Course Outcome/ Unit	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
	After completion of the course, the student will be able to:		
1	Apply the concept of Interference to determine the wavelength of light in Newton's ring experiment.	Apply	Conceptual, Procedural
2	Apply the concept of diffraction to study the spectrum for determining the wavelength of mercury light.	Apply	Conceptual, Procedural
3	Apply the concept of Hall's effect to find the physical parameters such as Hall's coefficient, carrier concentration, mobility of charge carriers etc.	Apply	Conceptual, Procedural
4	Apply the concept of black body radiation to verify from Stefan's law.	Apply	Conceptual, Procedural
5	Apply the concept of optical rotation to find the specific rotation of an optically active substance.	Apply	Conceptual, Procedural

S. No.	Course Outcomes Engineering Chemistry Lab: (BAS 152/252) Course Outcome/ Unit	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
	After completion of the course, the student will be able to:		
1	Use different analytical instruments for chemical analysis.	Apply	Conceptual, Procedural
2	Analyze molecular /system properties such as surface tension, viscosity and conductance of solution, using viscometer and stalagmometer.	Analyze	Conceptual, Procedural
3	Apply titrimetric analysis for estimation of the hardness of water, chloride content and iron content.	Apply	Conceptual, Procedural
4	Synthesis of Phenol Formaldehyde Resin.	Synthesize	Conceptual, Procedural
5	Synthesis of Urea Formaldehyde Resin.	Synthesize	Conceptual, Procedural

S. No.	Course Outcomes Basic Electrical Engineering Lab: (BEE 151/251) Course Outcome/ Unit	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
	After completion of the course, the student will be able to:		
1	Conduct experiments illustrating the application of KVL/KCL and network theorems to DC electrical circuits.	Apply	Conceptual
2	Demonstrate the behavior of AC circuits connected to single phase AC supply and measure power in single phase as well as three phase electrical circuits.	Apply	Conceptual
3	Perform experiment illustrating BH curve of magnetic materials.	Analyze	Conceptual
4	Calculate efficiency of a single phase transformer and DC machine.	Apply	Conceptual
5	Perform experiments on speed measurement and reversal of direction of three phase induction motor and Identify the type of DC and AC machines based on their construction.	Analyze	Conceptual

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	Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
	Basic Electronics Engineering Lab (BEC 151/ 251)		
S. No.	**Course Outcome/ Unit**		
After completion of the course, the student will be able to:			
1	**Identify** various types of Printed Circuit Boards (PCB) and perform artwork, etching, winding and soldering	Apply	Factual
2	**Apply** knowledge of primary electronic lab instruments including CRO, Multimeter, and Function Generator, Power Supply, Active, Passive Components and Bread Board.	Apply	Factual
3	**Demonstrate** the behavior of various devices and Investigate the use of Diode, BJT & FET in development of certain electronic circuits	Apply	Conceptual
4	**Demonstrate** the behavior of OPAMPS and Investigate the use of OPAMP in development of certain electronic solutions with possible variations to fine tune the output.	Apply	Conceptual
5	**Verify** truth tables of logic gates and Implement Boolean Function using logic gates	Analyze	Conceptual

	Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
	Programming for Problem Solving Lab: (BCS 151/ 251)		
S. No.	**Course Outcome/ Unit**		
After completion of the course, the student will be able to:			
1	Implement the algorithm and flowchart for arithmetic and logical relation-based problems.	Apply	Conceptual, Procedural
2	Understanding the computer programming language concept.	Apply	Conceptual, Procedural
3	Develop the program and analyze with the concept of pointer and its usage.	Apply	Conceptual, Procedural
4	Simplify the solution of Complex problem by using the concept of array of structures	Analysis	Conceptual, Procedural
5	Implement the concept of storing of data and records in the memory using arrays, pointers and structures.	Apply and Analysis	Conceptual, Procedural

	Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
	English Language Lab (BAS-155/ 255)		
S. No.	**Course Outcome/ Unit**		
After completion of the course, the student will be able to:			
1	To understand the basic objective of the course by being acquainted with specific dimensions of communication skills i.e. Reading, Writing, Listening, Thinking and Speaking.	Understand	Procedural
2	To create substantial base by the formation of strong professional vocabulary for its application at different platforms and through numerous modes as Comprehension, reading, writing and speaking etc.	Evaluate	Procedural
3	To apply it at their work place for writing purposes such as Presentation/official drafting/administrative communication and use it for document/project/report/research paper writing.	Apply	Procedural
4	To evaluate the correct and error-free writing by being well-versed in rules of English grammar and cultivate relevant technical style of communication &presentation at their work place and also for academic uses.	Evaluate	Meta-Cognitive
5	To apply it for practical and oral presentation purposes by being honed up in presentation skills and voice-dynamics. They will apply techniques for developing interpersonal communication skills and positive attitude leading to their professional competence.	Apply	Meta-Cognitive

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S. No.	Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
	Engineering Graphics and Design Lab (BCE 151/ 251)		
	Course Outcome/ Unit		
	After completion of the course, the student will be able to:		
1	Understand the visual aspects of engineering design.	Understand	Conceptual, Procedural
2	Apply modern engineering tools necessary for engineering practice.	Apply	Conceptual, Procedural
3	Analyze Isometric views.	Analyze	Conceptual, Procedural
4	Understand engineering graphics standards and effective communication through graphics.	Understand	Conceptual, Procedural
5	Apply computer-aided geometric design, solid modelling and creating working drawings.	Create	Conceptual, Procedural

S. No.	Course Outcomes	Bloom's Cognitive Process Level (BL)	Knowledge Category (KC)
	Workshop Practice Lab: (BWS 151/ 251)		
	Course Outcome/ Unit		
	After completion of the course, the student will be able to:		
1	Understand various engineering materials, tools, machines and measuring equipments.	Understand	Procedural
2	Apply the knowledge of lathe and CNC machine for performing related operations.	Apply	Procedural
3	Apply the knowledge of manufacturing in fitting and carpentry shop for performing related operations.	Apply	Procedural
4	Apply the knowledge of welding, moulding, casting and gas cutting for performing related operations.	Apply	Procedural
5	Apply the knowledge of 3D printing manufacturing technique	Apply	Procedural

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PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
Mapping of Course Outcomes with Program Outcomes												
Engineering Physics: (BAS 101/201)												
CO-1	2	2								1		2
CO-2	2	2			1	1	1			1		2
CO-3	2	1	1	1					1	1		2
CO-4	3	1	1	1	1	1	1			1		2
CO-5	2	1	1		1	1	1	1	1	1		2
Avg. Target Level	**2.2**	**1.4**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**		**2**

PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
Mapping of Course Outcomes with Program Outcomes												
Engineering Chemistry: (BAS 102/202)												
CO-1	2	1	1	1			1	1		1		1
CO-2	2	1	1	1	1	1				1	1	1
CO-3	2	2	1	1	1	1						1
CO-4	2	2		1	1	2	1					1
CO-5	2		2			2						2
Avg. Target Level	**2**	**1.5**	**1.25**	**1**	**1**	**1.5**	**1**	**1**		**1**	**1**	**1.2**

PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
Mapping of Course Outcomes with Program Outcomes												
Engineering Mathematics-I: (BAS 103)												
CO-1	2	2	1	1	1			1				1
CO-2	2	2	1					1				1
CO-3	2	2	1					1				1
CO-4	2	1						1				1
CO-5	2	2						1				1
Avg. Target Level	**2**	**1.8**	**1**	**1**	**1**			**1**				**1**

PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
Mapping of Course Outcomes with Program Outcomes												
Engineering Mathematics-II: (BAS 203)												
CO-1	2	2	1	1				1				1
CO-2	2	2	1	1				1				2
CO-3	2	2	1	1				1				1
CO-4	2	2	1					1				1
CO-5	2	2	1					1				1
Avg. Target Level	**2**	**2**	**1**	**1**				**1**				**1.2**

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Mapping of Course Outcomes with Program Outcomes											
Fundamentals Electrical Engineering: (BEE 101/201)											
PO	**PO-1**	**PO-2**	**PO-3**	**PO-4**	**PO-5**	**PO-6**	**PO-7**	**PO-8**	**PO-9**	**PO-10**	**PO-11**	**PO-12**
CO-1	2	2					3					2
CO-2	3	2					3					2
CO-3	3	3		2			3					3
CO-4	3	3		2			3					3
CO-5	2					1	3					3
Avg. Target Level	**2.6**	**2.5**		**2**		**1**	**3**					**2.6**

Mapping of Course Outcomes with Program Outcomes											
Fundamental of Electronics Engineering (BEC 101/ 201)											
PO	**PO-1**	**PO-2**	**PO-3**	**PO-4**	**PO-5**	**PO-6**	**PO-7**	**PO-8**	**PO-9**	**PO-10**	**PO-11**	**PO-12**
CO-1	3	3	3	2	2							2
CO-2	3	3	3	2	2	1	1					2
CO-3	3	3	3	2	2	1	1					3
CO-4	3	3	3	2	2	1	1		1			3
CO-5	2	2	2	3	3	3	3	1	2	2	2	3
Avg. Target Level	**2.8**	**2.8**	**2.8**	**2.2**	**2.2**	**1.5**	**1.5**	**1**	**1.5**	**2**	**2**	**2.6**

Mapping of Course Outcomes with Program Outcomes											
Programming for Problem Solving: (BCS 101/ 201)											
PO	**PO-1**	**PO-2**	**PO-3**	**PO-4**	**PO-5**	**PO-6**	**PO-7**	**PO-8**	**PO-9**	**PO-10**	**PO-11**	**PO-12**
CO-1	2	2			1			1	3	1	1	3
CO-2	2	2			1			1	3	1	1	3
CO-3	3	2	2	2	1	2		1	2	1	2	3
CO-4	3	3	2	1	1	2		1	2	1	1	3
CO-5	3	3	2	1	1	2		1	2	1	1	3
Avg. Target Level	**2.6**	**2.4**	**2**	**1.33**	**1**	**2**		**1**	**2.4**	**1**	**1.2**	**3**

Mapping of Course Outcomes with Program Outcomes											
Fundamental of Mechanical Engineering (BME 101/ 201)											
PO	**PO-1**	**PO-2**	**PO-3**	**PO-4**	**PO-5**	**PO-6**	**PO-7**	**PO-8**	**PO-9**	**PO-10**	**PO-11**	**PO-12**
CO-1	2	2	2			2						2
CO-2	2	2	2			2						2
CO-3	2	2	2			2						2
CO-4	2	2	2			2						2
CO-5	2	2	2			2						2
Avg. Target Level	**2**	**2**	**2**			**2**						**2**

Mapping of Course Outcomes with Program Outcomes											
Environment and Ecology (BAS104/204)											
PO	**PO-1**	**PO-2**	**PO-3**	**PO-4**	**PO-5**	**PO-6**	**PO-7**	**PO-8**	**PO-9**	**PO-10**	**PO-11**	**PO-12**
CO-1	2	2					2					3
CO-2	3	1				2	2	2	2	1		3
CO-3	3	3	3	3	2	3	3	2	2	1	2	3
CO-4	2	2	2	2	1	2	3	1	2	2	3	3
CO-5		1	1			2	2	1	1	2	1	3
Avg. Target Level	**2.5**	**1.8**	**2**	**2.5**	**1.5**	**2.3**	**2.4**	**1.5**	**1.8**	**1.5**	**2**	**3**

Mapping of Course Outcomes with Program Outcomes											
Soft Skills (BAS105)											
PO	**PO-1**	**PO-2**	**PO-3**	**PO-4**	**PO-5**	**PO-6**	**PO-7**	**PO-8**	**PO-9**	**PO-10**	**PO-11**	**PO-12**
CO-1			2	2		2	1	2	2	3	1	
CO-2			1	2		1	2	2	3	3	1	2
CO-3			1			1	1	2	3	3		2
CO-4				1	1	2	2	2	3	3	1	2
CO-5			1	1	1	2	1	2	3	3	2	3
Avg. Target Level			**1.25**	**1.5**	**1**	**1.6**	**1.4**	**2**	**2.8**	**3**	**1.25**	**2.25**

Mapping of Course Outcomes with Program Outcomes											
Soft Skills (BAS205)											
PO	**PO-1**	**PO-2**	**PO-3**	**PO-4**	**PO-5**	**PO-6**	**PO-7**	**PO-8**	**PO-9**	**PO-10**	**PO-11**	**PO-12**
CO-1			2	2		2	1	2	2	3	1	
CO-2			1	2		1	2	2	3	3	1	2
CO-3			1			1	1	2	3	3		2
CO-4				1	1	2	2	2	3	3	1	2
CO-5			1	1	1	2	1	2	3	3	2	3
Avg. Target Level			**1.25**	**1.5**	**1**	**1.6**	**1.4**	**2**	**2.8**	**3**	**1.25**	**2.25**

Mapping of Course Outcomes with Program Outcomes											
Engineering Physics Lab: (BAS 151/ 251)											
PO	**PO-1**	**PO-2**	**PO-3**	**PO-4**	**PO-5**	**PO-6**	**PO-7**	**PO-8**	**PO-9**	**PO-10**	**PO-11**	**PO-12**
CO-1	3	2	1			1			2	1		2
CO-2	3	2	1			1			2	1		2
CO-3	3	2	1			1			2	1		2
CO-4	3	2	1			1			2	1		2
CO-5	3	2	1			1			2	1		2
Avg. Target Level	**3**	**2**	**1**			**1**			**2**	**1**		**2**

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Mapping of Course Outcomes with Program Outcomes
Engineering Chemistry Lab: (BAS 152/252)

PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO-1	1	1				1	1					1
CO-2	1	2		2		1	1					1
CO-3	1	3		2		1	1					1
CO-4	1	3				1	1					1
CO-5	1	2				1	1					1
Avg. Target Level	1	2.2		2		1	1					1

Mapping of Course Outcomes with Program Outcomes
Basic Electrical Engineering Lab: (BEE 151/251)

PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO-1	2	2	1				3					2
CO-2	3	2	2				3					2
CO-3	3	2	2	2			3					3
CO-4	3	2	2	2			3					3
CO-5	2	2	1			1	3					3
Avg. Target Level	2.6	2	1.6	2		1	3					2.6

Mapping of Course Outcomes with Program Outcomes
Basic Electronics Engineering Lab (BEC 151/ 251)

PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO-1	3	1	3	2	3	1	2		3			2
CO-2	3	1	3	2	3				2			2
CO-3	3	2	3	2	3	2	2		2			2
CO-4	3	2	3	2	3	2	2		2			2
CO-5	3	2	3	2	3	2	2		2			2
Avg. Target Level	3	1.6	3	2	3	1.75	2		2.2			2

Mapping of Course Outcomes with Program Outcomes
Programming for Problem Solving Lab: (BCS 151/ 251)

PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO-1	3	3	2	1	1							2
CO-2	3	3	2	1	1					2	2	2
CO-3	3	3	2	1	1							2
CO-4	3	3	3	1	1							2
CO-5	3	3	3	1	1					3	3	2
Avg. Target Level	3	3	2.4	1	1					2.5	2.5	2

KIET GROUP OF INSTITUTIONS, DELHI-NCR, GHAZIABAD
DEPARTMENT OF B. TECH. I YEAR & APPLIED SCIENCES
COs with POs Mapping, B. TECH. I YEAR (2022-23)

Mapping of Course Outcomes with Program Outcomes											
English Language Lab (BAS-155/ 255)											
PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO-1		1								3	1	2
CO-2									2	3		2
CO-3										3		2
CO-4										3		2
CO-5										3		2
Avg. Target Level		1							2	3	1	2

Mapping of Course Outcomes with Program Outcomes											
Engineering Graphics and Design Lab (BCE 151/ 251)											
PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO-1	1	1	1	1	1					1		3
CO-2	3	3	3	3	3							3
CO-3	3	3	3	3	3							3
CO-4	1	1	1	1	1					1		3
CO-5	3	3	3	3	3							3
Avg. Target Level	2.2	2.2	2.2	2.2	2.2					1		3

Mapping of Course Outcomes with Program Outcomes											
Workshop Practice Lab: (BWS 151/ 251)											
PO	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO-1						1	1	3	2	1	1	2
CO-2						1	1	3	2	1	1	2
CO-3						1	1	3	2	1	1	2
CO-4						1	1	3	2	1	1	2
CO-5						1	1	3	2	1	1	2
Avg. Target Level						1	1	3	2	1	1	2