

Dronacharya Group Of Institutions

Department: Applied Science and Humanities

Academic Year -2023-24

Course Outcomes

B.TECH.2nd SEM

ENGINEERING CHEMISTRY

(BAS202)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Get an understanding of the theoretical principles of chemistry of molecular structure, bonding and properties, Chemistry of advanced materials (liquid crystals, Nano materials, Graphite & Fullerene) as well as the Principles of Green Chemistry.	K ₃
(CO2)	Apply the fundamental concepts of determination of structure with various spectral techniques and stereochemistry.	K ₄
(CO3)	Utilize the theory of construction of electrodes, batteries and fuel cells in redesigning new engineering products and categorize the reasons for corrosion and study methods to control corrosion and develop understanding of Chemistry of Engineering materials (Cement)..	K ₃
(CO4)	Develop understanding of the sources, impurities and hardness of water, apply the concepts of determination of calorific values and analyze the coal.	K ₃
(CO5)	Develop the understanding of Chemical structure of polymers and its effect on their various properties when used as engineering materials. Understanding the applications of specific polymers and Chemistry applicable in industrial process.	K ₃

ENGINEERING MATHEMATICS-II (BAS203)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Remember the concept differentiation to evaluate LDE of nth order with constant coefficient and LDE with variable coefficient of 2nd order.	K1,K5
(CO2)	Understand and apply the concept of Laplace Transform to evaluate differential equations	K2,K3,K5
(CO3)	Understand the concept of convergence to analyze the convergence of series and expansion of the function for Fourier series.	K2,K4
(CO4)	Apply the concept of analyticity, Harmonic function and create the image of function applying conformal transformation	K3,K6
(CO5)	Apply the concept of Cauchy Integral theorem, Cauchy Integral formula, singularity and calculus of residue to evaluate integrals	K3,K5

FUNDAMENTALS OF ELECTRONICS ENGINEERING (BEC201)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Describe the concept of PN Junction and devices.	K2
(CO2)	Explain the concept of BJT, FET and MOFET.	K2
(CO3)	Apply the concept of Operational amplifier to design linear and non-linear applications.	K3
(CO4)	Perform number systems conversions, binary arithmetic and minimize logic functions.	K2
(CO5)	Describe the fundamentals of communication technologies.	K2

FUNDAMENTALS OF MECHANICAL ENGINEERING

(BME201)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Apply the concept of force resolution and stress and strain to solve basic problems	K3
(CO2)	Understand the construction details and working of internal combustion engines, electric vehicle and hybrid vehicles.	K2
(CO3)	Explain the construction detail and working of refrigerator, heat pump and airconditioner.	K2
(CO4)	Understand fluid properties, conservation laws and hydraulic machinery used in real life. .	K2
(CO5)	Understand the working principle of different measuring instrument and mechatronics with their advantages, scope and Industrial application.	K2

SOFT SKILLS

(BAS205)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Write professionally in simple and correct English.	K2
(CO2)	Demonstrate active listening with comprehension, and the ability to write clear and well structured emails and proposals.	K3
(CO3)	Learn the use of correct body language and tone of voice to enhance communication.	K4
(CO4)	Acquire the skills necessary to communicate effectively and deliver presentations with clarity and impact	K3
(CO5)	Understand and apply some important aspects of core skills, like Leadership and stress management.	K2

ENGINEERING CHEMISTRY LAB (BAS252)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Get an understanding of the use of different analytical instruments.	K3
(CO2)	Measure the molecular / system properties such as surface tension, viscosity, conductance of solution, chloride and iron content in the water.	K3
(CO3)	Measure the hardness and alkalinity of the water.	K3
(CO4)	Know the fundamental concepts of the preparation of phenol formaldehyde & urea formaldehyde resin, adipic acid and Paracetamol.	K3
(CO5)	Estimate the rate constant of reaction.	K3

ENGLISH LANGUAGE LAB (BAS255)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	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. .	K2,
(CO2)	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.	K6
(CO3)	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.	K3,K4
(CO4)	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.	K5
(CO5)	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.	K3

WORKSHOP PRACTICE LAB

(BCE151/ BCE251)

Course Outcome (CO)	Details of Course Outcomes	Bloom's Knowledge Level (KL)
(CO1)	Use various engineering materials, tools, machines and measuring equipments	K3
(CO2)	Perform machine operations in lathe and CNC machine. .	K3
(CO3)	Perform manufacturing operations on components in fitting and carpentry shop.	K3
(CO4)	Perform operations in welding, moulding, casting and gas cutting	K3
(CO5)	Fabricate a job by 3D printing manufacturing technique	K3