



TULSIRAMJI GAIKWAD-PATIL COLLEGE OF ENGINEERING & TECHNOLOGY

Wardha Road, Nagpur - 441108

Accredited with NAAC A+ Grade & NBA Accredited (EE & ME)

Approved by AICTE, New Delhi, Govt. of Maharashtra

(An Autonomous Institution Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)



Biotechnology Department

B.Tech Fourth Sem (NEP)

BBT32401 : Biochemistry Metabolism

Course Code	Course Outcomes
BBT32401.1	Summarize different biochemical pathways like Gluconeogenesis, glycolysis and TCA cycle
BBT32401.2	Explain the pathways for lipid metabolism
BBT32401.3	Illustrate the processes of nucleic acid synthesis
BBT32401.4	Interpret the protein synthesis mechanism and metabolism
BBT32401.5	Outline the Oxidation-Reduction Reactions and ATP Yield



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B.Tech Fourth Sem (NEP)

BBT32402 – Immunology

Course Code	Course Outcomes
BBT32402.1	Understand basic concept of Immunity and working of Immune system.
BBT32402.2	Acquire Knowledge about organs and cells involve in Immune system.
BBT32402.3	Understand concept of Antigen and Antibody and their interaction.
BBT32402.4	Summarize different types of Immune response and its implementation.
BBT32402.5	Outline different types of antigen-Antibody Interaction and serological reactions.



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BSH32405 – Unit Operations

Course Code	Course Outcomes
BSH32307.1	Apply different units and conversions in bioprocess
BSH32307.2	Illustrate ideal gases and analyze their properties
BSH32307.3	Assess the methods of material balance and energy balance in different unit operations.



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BBT32408 – Waste Management

Course Code	Course Outcomes
BBT32301.1	Explain the various sources of air pollution and their impact on the environment and human health
BBT32301.2	Demonstrate the use of physical and biological treatment methods to optimize water treatment systems, including sedimentation, filtration, coagulation, trickling filters, and activated sludge processes
BBT32301.3	Evaluate the effectiveness of various solid waste disposal methods, such as composting, landfill, briquetting, gasification, and incineration, in managing waste sustainably.



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BSH32404 – Leadership and Team Dynamics

Course Code	Course Outcomes
BSH32404.1	Explain how global leadership skills contribute to leadership effectiveness.
BSH32404.2	Understand the leader's role in team-based organizations.
BSH32404.3	Classify the potential contribution of outdoor training to the development of team leadership.



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BSH32403 – Human Values for Professional Society

Course Code	Course Outcomes
BSH32403.1	Students will be able to explain the importance of values education in life.
BSH32403.2	Students will be able to understand the significance of harmony in family and society.
BSH32403.3	Students will be able to apply ethics in personal and professional life.