



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)



Aeronautical Engineering Department

B.Tech Fourth Sem (NEP)

BAE32401: Fundamental of Thermodynamics

BAE32401	Course Outcomes
CO1	Explain thermodynamics concepts, relate laws of the ideal gas, identify various thermodynamic processes and apply the laws to determine the energy transfer in terms of heat and work.
CO2	Explain the first law of thermodynamics and apply the law to evaluate open, closed systems, thermal components and devices.
CO3	Interpret the second law of thermodynamics, entropy, and apply the law to evaluate heat engine, heat pump, and refrigerator performance.
CO4	Relate various steam properties and analyze the different types of processes using steam as working fluid to determine the energy transfer in terms of heat and work.
CO5	Compare various power cycles and analyze the cycles to determine the energy transfer in terms of heat, work and efficiency.



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BAE32402: Aerodynamics-I

BAE32402	Course Outcomes
CO1	Determine aerodynamic forces and moments on aerofoil through the understanding of basic principles and governing equations of fluid mechanics.
CO2	Evaluate typical airfoil characteristics and two-dimensional flows over airfoil
CO3	Compute and analyze the incompressible flow over finite wings
CO4	Apply finite wing theory and design high lift systems from the aerodynamics viewpoint.
CO5	Depict the effect of three-dimensional effect on the aerodynamic forces and related effects on wing.



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BAE32403: Aerospace Materials

BAE32403	Course Outcomes
CO1	Apply the knowledge of properties and classification of materials in selection of materials for aerospace applications.
CO2	Examine the uses of composite materials in aircraft structures.
CO3	Apply the knowledge of different composite materials manufacturing processes for selecting appropriate processes for particular material.
CO4	Apply the knowledge for selection of appropriate tests for particular application through understanding different mechanical properties and testing methods.
CO5	Comprehend application of advanced materials in the aviation industry.



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Open Elective-II

BAE32406: Avionics

BAE32406	Course Outcomes
CO1	Categorize different types of aircraft systems.
CO2	Identify the working principle, operational and functions of various instruments in aircraft.
CO3	Perform analog /digital conversions and use microprocessors and Handle functioning of MIL-STD-1553B Data Bus



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BBA32403: Industrial Management

BBA32401	Course Outcomes	C
BBA32401.1	Analyze the role and significance of industrial management in organizational growth.	
BBA32401.2	Apply productivity improvement techniques to enhance industrial efficiency.	
BBA32401.3	Evaluate strategies for effective resource utilization and quality control.	



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BME32410: Advance Manufacturing Technology

BME32410	Course Outcomes
BME32410.1	Interpret the importance of nontraditional machining processes
BME32410.2	Illustrate the concept of Electro-Chemical Machining, Electrochemical Grinding, Electric Discharge Machining
BME32410.3	Discuss about Unconventional welding techniques such as Inert Gas MIG & TIG