



Shri Balasaheb Mane Shikshan Prasarak Mandal's
ASHOKRAO MANE GROUP OF INSTITUTIONS
Vathar Tarf Vadgaon | Kolhapur | Maharashtra



Record No.: **AMGOI/ACAD/34A**

Revision: **00**

Date: **01/07/2024**

Course Outcomes (Cos)

Department: Mechanical Engineering

Academic Year: 2024 -2025

Course code	Course Name	Course Outcome No.	Course Outcome
BTMC 501	Heat Transfer	BTMC 501.1	Explain the laws of heat transfer and deduce the general heat conduction equation and to explain it for 1-D steady state heat transfer in regular shape bodies
		BTMC 501.2	Describe the critical radius of insulation, overall heat transfer coefficient, thermal conductivity and lumped heat transfer
		BTMC 501.3	Interpret the extended surfaces
		BTMC 501.4	Illustrate the boundary layer concept, dimensional analysis, forced and free convection under different conditions
		BTMC 501.5	Describe the Boiling heat transfer, Evaluate the heat exchanger and examine the LMTD and NTU methods applied to engineering problems
		BTMC 501.6	Explain the thermal radiation black body, emissivity and reflectivity and evaluation of view factor and radiation shields
BTMC502	Machine Design I	BTMC502.1	Formulate the problem by identifying customer need and convert into design Specification
		BTMC502.2	Understand component behavior subjected to loads and identify failure criteria



Shri Balasaheb Mane Shikshan Prasarak Mandal's
ASHOKRAO MANE GROUP OF INSTITUTIONS
Vathar Tarf Vadgaon | Kolhapur | Maharashtra



Record No.: **AMGOI/ACAD/34A**

Revision: **00**

Date: **01/07/2024**

		BTMC502.3	Analyze the stresses and strain induced in the component.
		BTMC502.4	Design of machine component using theories of failures.
		BTMC502.5	Design of components like shaft, key, coupling, screw and spring .
BTMC503	Theory of Machines II	BTMC503.1	Identify and select type of belt and rope drive for a particular application
		BTMC503.2	Evaluate gear tooth geometry and select appropriate gears, gear trains
		BTMC503.3	Define governor and select/suggest an appropriate governor
		BTMC503.4	Characterize flywheels as per engine requirement
		BTMC503.5	Understand gyroscopic effects in ships, aero planes, and road vehicles.
		BTMC503.6	students will be able to, understand free and forced vibrations of single degree freedom systems



Shri Balasaheb Mane Shikshan Prasarak Mandal's
ASHOKRAO MANE GROUP OF INSTITUTIONS



Vathar Tarf Vadgaon | Kolhapur | Maharashtra

Record No.: **AMGOI/ACAD/34A**

Revision: **00**

Date: **01/07/2024**

BTAPE504 D	Automobile Engineering	BTAPE504D.1	Identify the different parts of the automobile
		BTAPE504D.2	Explain the working of various parts like engine, transmission, clutch, brakes etc.,
		BTAPE504D.3	Demonstrate various types of drive systems; front and rear wheels, two and four wheel drive
		BTAPE504D.4	Apply vehicle troubleshooting and maintenance procedures
		BTAPE504D.5	Analyze the environmental implications of automobile emissions. And suggest suitable regulatory modifications.
BTMOE50 5C	Human Resource Management	BTMOE505C.1	Describe trends in the labor force composition and how they impact human resource management practice.
		BTMOE505C.2	Discuss how to strategically plan for the human resources needed to meet organizational goals and objectives.
		BTMOE505C.3	Define the process of job analysis and discuss its importance as a foundation for human resource management practice
		BTMOE505C.4	Explain how legislation impacts human resource management practice.
		BTMOE505C.5	Compare and contrast methods used for selection and placement of human resources.



Shri Balasaheb Mane Shikshan Prasarak Mandal's

ASHOKRAO MANE GROUP OF INSTITUTIONS

Vathar Tarf Vadgaon | Kolhapur | Maharashtra



Record No.: **AMGOI/ACAD/34A**

Revision: **00**

Date: **01/07/2024**

		BTMOE505C.6	Describe the steps required to develop and evaluate an employee training program
		BTMOE505C.7	Summarize the activities involved in evaluating and managing employee performance
		BTMOE505C.8	Identify and explain the issues involved in establishing compensation systems.



Shri Balasaheb Mane Shikshan Prasarak Mandal's
ASHOKRAO MANE GROUP OF INSTITUTIONS
Vathar Tarf Vadgaon | Kolhapur | Maharashtra



Record No.: **AMGOI/ACAD/34A**

Revision: **00**

Date: **01/07/2024**

SEM VI

Course code	Course Name	Course Outcome No.	Course Outcome
BTMC601	Manufacturing ProcessII	BTMC601.1	Understand grinding machines in detail.
		BTMC601.2	Understanding Cutting forces in details and there calculations
		BTMC601.3	Understanding tool wear and machinability of materials.
		BTMC601.4	Understand the abrasive process in detail.
		BTMC601.5	Understanding plastics and ceramics in detail.
BTMC602	Machine Design II	BTMC602.1	Define function of bearing and classify bearings.
		BTMC602.2	Understanding failure of bearing and their influence on its selection.
		BTMC602.3	Classify the friction clutches and brakes and decide the torque capacity and friction disk parameter.
		BTMC602.4	Select materials and configuration for machine elements like gears.
		BTMC602.5	Design of elements like gears, belts for given power rating
BTMPE603 A	IC Engines	BTMPE603 A.1	Understand various types of I.C. Engines and Cycles of operation.



Shri Balasaheb Mane Shikshan Prasarak Mandal's
ASHOKRAO MANE GROUP OF INSTITUTIONS
Vathar Tarf Vadgaon | Kolhapur | Maharashtra



Record No.: **AMGOI/ACAD/34A**

Revision: **00**

Date: **01/07/2024**

		BTMPE603 A.2	Analyze the effect of various operating variables on engine performance
		BTMPE603 A.3	Identify fuel metering and fuel supply systems for different types of engines
		BTMPE603 A.4	Understand normal and abnormal combustion phenomena in SI and CI engines
		BTMPE603 A.5	Evaluate performance Analysis of IC Engine and Justify the suitability of IC Engine for different application
		BTMPE603 A.6	Understand the conventional and non-conventional fuels for IC engines and effects of emission formation of IC engines, its effects and the legislation standards
BTMPE604 B	Product Life Cycle Management	BTMPE604B .1	Outline the concept of PLM
		BTMPE604B .2	Illustrate the PDM system and its importance.
		BTMPE604B .3	Illustrate the product design process
		BTMPE604B .4	Build the procedure for new product development
		BTMPE604B .5	Classify and compare various technology forecasting methods.
		BTMPE604B .6	Outline the stages involved in PLM for a given product



Shri Balasaheb Mane Shikshan Prasarak Mandal's

ASHOKRAO MANE GROUP OF INSTITUTIONS

Vathar Tarf Vadgaon | Kolhapur | Maharashtra



Record No.: **AMGOI/ACAD/34A**

Revision: **00**

Date: **01/07/2024**

BTMOE60 5D	Wind Energy		Understand historical applications of wind energy
			Understand and explain wind measurements and wind data
			Determine Wind Turbine Power, Energy and Torque
			Understand and explain Wind Turbine Connected to the Electrical Network AC and DC
			Understand economics of wind energy