



MANAV SCHOOL OF ENGINEERING & TECHNOLOGY

Approved by AICTE New Delhi, Affiliated to SGBAU (DTE Code : 1276)

Akola-Khamgaon NH 6, Vyala, Tal: Balapur, Dist.: Akola.

Email: mkct.engg@gmail.com Website : www.mkct.org.in

ENGINEERING MATERIALS

After successfully completing the course, students will be able to:

1. To gain the knowledge of various materials, their classification & applications.
2. To study the basic mechanical properties of materials
3. To develop a fundamental understanding of various electrical, electronic & magnetic materials.
4. To study the properties and application of stainless steels.
5. To study the importance of biomaterials and their applications.
6. To study concepts, advantages, limitations and applications of powder metallurgy

Engineering Thermodynamics

After successfully completing the course, students will be able to:

1. To learn heat and work interactions between system and its surroundings, and energy balance
2. To apply I law of thermodynamics to various energy conversion devices
3. To evaluate the change in properties of substances during various energy conversion processes
4. To understand the difference between high grade and low grade
5. To comprehend the limitations imposed by II law of thermodynamics on energy conversion

Manufacturing Technology

After successfully completing the course, students will be able to:

1. To study the pattern making and casting process.
2. To study the joining process.
3. To study the Mechanical working of metals.
4. To study theory of metal cutting and lathe operation.
5. To study the drilling, milling, broaching and boring process.
6. To study grinding and finishing process.

Mechanics of Materials

After successfully completing the course, students will be able to:

1. To develop basis for study of stress and strain in various components under different types of loading.



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2. To study mechanical behaviour of materials when subjected to loads and stress either parallel or perpendicular to axis.
3. To familiarize about finding shear force, bending moment on beams, slope and deflection under different loading conditions.
4. To study torsion and it's applications to different types of helical and leaf spring.
5. To develop necessary background to apply Mechanics of material to various mechanical operations.
6. To be familiarize with study of behaviour to thermal stresses and strain.

Basics of Mechanical Engineering (MDM-I)

After successfully completing the course, students will be able to:

1. To introduce and define the engineering materials and concepts of mechanical engineering.
2. To enable the students to understand the details about the energy systems and its components.
3. To help the students acquire knowledge about the various manufacturing process and to demonstrate the various machine elements.

Power Plant Engineering

(Open Elective-I)

After successfully completing the course, students will be able to:

1. To impart basic knowledge – components, working and performance of various types of power plants and the associated energy conversion issues.
2. To provide insights of operation and economics of power generation.