



SHRI SANT GAJANAN MAHARAJ COLLEGE OF ENGINEERING, SHEGAON

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES OF ALL COURSES OF FIFTH SEMESTER

BE MECHANICAL ENGINEERING

5ME01 Heat Transfer

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

- 1 Analyze the thermal systems by applying the fundamental concept of conduction, convection and radiation.
- 2 Apply the laws of radiations to heat transfer systems
- 3 Evaluate the heat transfer coefficients for forced and free convection.
- 4 Analyze the performance of heat exchangers

5ME02 Metrology and Quality Control

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

- 1 Apply the concept of quality, concept of frequency distribution to the sampling data.
- 2 Apply various control charts for quality improvement of products.
- 3 Apply the basic concepts of Nondestructive testing of components.
- 4 Determine the linear and angular dimensions of the components.

5ME03 Kinematics of Machines

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

- 1 Analyze machines & mechanisms for different working condition.
- 2 Evaluate different special purpose mechanisms & machine parts.
- 3 Apply principles of kinematics to machines & mechanisms.
- 4 Test mechanisms for complex engineering problems.

5ME04 Measurement Systems

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

- 1 Identify types, functional elements of Measurement system and types of input to the measurement system.
- 2 Use concepts of general performance characteristics for choosing measuring instrument.
- 3 Demonstrate process of calibration of instruments.
- 4 Select and use instrument for various physical quantities.

5ME05 Industrial Robotics and Applications

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

- 1 Illustrate Robot's anatomy, joints types, wrist construction, robot standard configurations and their work space.
- 2 Explain the construction and working of different types of End Effectors.
- 3 Explain various robot drives, robot motion control and its levels.
- 4 Explain various methods of teaching and programming the robots.
- 5 Explain principle of working and applications of different types of robot sensors.
- 6 Identify a particular type of robot depending on the its application in manufacturing.