

Pimpri Chinchwad Education Trust's
Pimpri Chinchwad College of Engineering
Sector No. 26, Pradhikaran,
Nigdi, Pune – 411 044



COURSE OUTLINE

Department: Mechanical Engineering
Class: SY

A.Y.:2021-22 Sem-I

Date:21 Oct 2021

Name of the Course: **Engineering Thermodynamics**

Relevance of the course:

Thermodynamics is one of the fundamental sciences of Mechanical engineering . It lays the foundation of Thermal Engineering along with fluid mechanics and heat transfer. The law and fundamental concepts of Thermodynamics are applicable to may areas like I.C. Engines, Refrigeration & Air Conditioning, Metallurgy, Fluid Machinery etc.




Course Outcomes

CO No	CO Statement	No. of Lectures Planned	No. of Tutorials planned	Content Delivery method	Assessment tools Planned
1.	Student will be able to Identify work transfer by using the operation definition of work transfer and calculate it's magnitude	8	1	Presentation, Lecture with Interaction, Quiz	Class quizzes, MTE, ETE
2.	Student will be able to Apply the first law of Thermodynamics to various processes and systems and draw inferences	8	2	Presentation, Lecture with Interaction, Quiz	Class quizzes, MTE, ETE
3.	Student will be able to Identify the Possibility /type of processes and cycles	8	2	Presentation, Lecture with Interaction, Quiz	Class quizzes, MTE, ETE
4.	Student will be able to Evaluate heat transfer, work transfer & other important thermodynamic entities for the processes undergone by ideal gas	6	1	Presentation, Lecture with Interaction, Quiz	Class quizzes, ETE
5.	Student will be able to Use steam tables and Mollier Chart for solving problems related to steam processes	7	2	Presentation, Lecture with Interaction, Quiz	Class quizzes, ETE Assignment
6.	Student will be able to Estimate the exergy of simple thermodynamic systems	6	1	Presentation, Lecture with Interaction, Quiz	Class quizzes, ETE Assignment

Assignment:

Assignment Planned	CO Mapped	Tentative schedule
Assignment 1: Use of EES software to analyze steam systems, Unit 5	CO 5	October Last week
Assignment 2: Exergy analysis of simple thermodynamic systems	CO 6	November Second Week

MOOC Courses: Engineering Thermodynamics by Dr. U. N. Gaitonde (IITB) available on IITBx and SteamNet (Forbes Marshall)

		
Course Faculty SY(A) Mr. U. I. Shaikh	Course Faculty SY(B) Mr. U. I. Shaikh	Course Faculty S.Y. (C) Dr. P. J. Tipole
Course Coordinator	Module Coordinator (Thermal & Fluids)	