

## ME 333 - Thermodynamics (2)

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**Hour:** Lecture: 2 Hrs.

Tutorial: 2 Hrs.

Credit: 3.

**Coordinator:** Sameh Shabaan

**Text Book:**

- T.D. Eastop, “Applied Thermodynamics for Engineering Technologists”, Latest Edition, Longman

**Specific course information**

- a. Gas turbine units, practical application of modified gas units, mixtures Dalton’s Law and Gibbs Dalton Law. Mixture analysis, gas and vapor mixture. Psychometric mixture. Nozzle steam and gas nozzles, Design of a selected topic.
- b. Prerequisite: ME 232
- c. Designation: Required

**Specific goals for the course:**

- An ability to apply knowledge of mathematics, science, and engineering.
- Design and conduct experiments, and collect, analyze and interpret data.
- Identify, formulate, and solve engineering problems. Make appropriate and necessary assumptions. Suggest and evaluate new approaches.
- Ability to visualize the impact of the Mechanical technological development on the environment

**Course instruction outcomes:**

- The students will be given a through grounding in subject of thermodynamics and the design of thermal plant & to illuminate the necessary theoretical rigour, the emphasis throughout is on the applications of theory to real processes undergoing in thermal plants

**Student outcomes:**

A, B, E

**Topics Covered:**

- Mixtures
- Psychrometry
- Refrigeration
- Gas Turbine
- Nozzles
- Design of a selected topic

Course / credit hours	Math & Basic Sciences	Engineering Topics	General Education
Thermodynamics (2) (ME333)/3	1	2	