

ENGRD 221: ENGINEERING THERMODYNAMICS

Lecture 12: October 2, 2007

Reading Assignments (from Moran & Shapiro, Sixth Edition): Read all of Chapter 6 including the solved example problems.

Topics covered:

- Continuing reviewing topics related with entropy production
- Entropy change calculations for various processes for the water-vapor system and ideal gases (both with constant and temperature dependent c_p and c_v).
- Introducing isentropic efficiencies for turbines, heat pumps and other devices.
- Examples of using isentropic efficiencies for the water-vapor system. Calculations of the 2_s state in the mixture and superheated steam region.