2.996 Fundamentals of Advanced Energy Conversion Lecture Memo

Lecture number: 3
Date: February 11th, 2004

- Entropy in an open system
- Isentropic process
- Brayton cycles: Compressor and turbine efficiencies
  - Cycle efficiency, $w_{\text{net}}$
  - Recuperative cycle
- Steam cycles: Conventional, superheating, reheat and regeneration cycle
- Combined cycles
- Gas mixtures: Molar and mass fractions, molecular weight, partial pressure
  - Internal energy, enthalpy and entropy.