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_{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 ehthropy.