

ENGR 3203

HW#1

Due Tuesday January 17, 2012

1. Define thermodynamics and give some example applications of thermo.
2. Draw a sketch of the components involved in a Rankine power cycle using coal as fuel. Label each component and include the state of steam as it is entering and leaving.
3. Draw a sketch of the components involved in a Rankine power cycle using uranium as fuel (i.e. a nuclear power plant). Label each component and include the state of steam as it is entering and leaving.
4. Research fuel cells and draw sketches and describe in some detail how two different types of fuel cells work. Make use of web and UCO library resources and properly reference these resources.
5. What are the potential environmental effects of a Rankine power cycle utilizing coal as fuel? Discuss in detail.
6. What are the potential environmental effects of a Rankine power cycle utilizing uranium as fuel? Discuss in detail.

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HW#2

Due Tuesday January 17, 2012

Work the following problems from your textbook:

2.25, 2.29, 2.47, 2.51, 2.61, 2.78, 2.100E