

### **E82 Fall 2002 First Exam Skills List**

1. Given an equation in BTU/h and °R, convert it into an equation in W and °C, and simplify.
2. Given sufficient variables in the General Manometer Equation, find the value of the missing variable.
3. Given the flow rate and composition of a three-component feed stream to a separator, either find the flow rates and compositions of the exit streams given the split fractions, or find the flow rates and split fractions given the exit-stream compositions.
4. Given a chemical reactor with a five-component, two-reaction system, and a sufficient set of values from among the entering molar flow rates, the exiting molar flow rates, and the extents of reaction, find the values for the missing variables.