Alhamdulilah, now I become a 2nd year students. For this semester, I’m taking Energy Balance or this semester. 1st day of class, I have been introduce to syllabus of study such as Balances on Non-reactive Processes, Energy Balance For Reactive Processes, the 2nd Law of Thermodynamics and Power and Refrigeration System.

Besides, I learned what state properties are and how I want to use hypothetical process path in solving problems. A very important thing in state properties is reference state. (Temperature, Pressure, Phase) must be written in the answer sheet. The hypothetical process paths just can be use if occur PHASE CHANGE ONLY and have many ways to achieve a target by change it PHASE and TEMPERATUREonly. If there are no large diffrerences in pressure(<20 atm), assume the substance as an ideal gas.

Enthalpy changes at constant P are given by integration of this equation:



Changes in P at Constant T (no phase change or reactions)

Ideal gases: 

Real gases:  Refer to Table B5, B6 n B7.

Liquids and solids: 