**Chemistry 122**

**Chapter 17 – Thermochemistry**

4.184J = 1 cal

Specific heat capacity of ice = 2.01J/(g∙◦C)

Specific heat of water = 4.18J/(g∙◦C)

Specific heat capacity of steam = 2.01J/(g∙◦C)

C = q/m∙∆T

Water = ∆Hfus = 6.01kJ/mol; ∆Hsolid = -6.01kJ/mol; ∆Hvap = 40.7 kJ/mol; Hcond = -40.7kJ/mol

∆H0 = ∆Hf0 (products) - ∆Hf0 (reactants)

**Chapter 18 – Rates of Reaction**

= [C]c [D]d  
 [A]a[B]b

∆G = ∆H - T∆S

Rate = k[A]a[B]b

**Chapter 19 – Acid Base Chemistry**

Kw = [H+][OH-] = 1.0 x 10-14

pH = -log[H+]

Ka = [H+][A-] /[HA]

pH + pOH = 14