

2011/2012 FIRST SEMESTER LECTURE GUIDE CHM 101

PART B

THERMOCHEMISTRY

Definitions of terms –

- Energy : Kinetic energy, potential energy and internal energy
- Work
- System: open system, isolated system and Closed system

FIRST LAW OF THERMODYNAMICS

- Statement and application of law
- Endothermic and exothermic processes
- State function
- Enthalpies of Reactions
- Heat and Specific Heat Capacities

HESS'S LAW OF HEAT SUMMATION

- Calculations of enthalpies of reactions using Hess's law

RATES OF REACTION/ CHEMICAL KINETICS

- Rate laws and rate equations
- Factors affecting rate of reactions
- Activation energy and Arrhenius equation
- Worked examples

