

Continuation Sheet No 2 of 2

Course Number/Title: MEC K274 Heat Transfer

Objectives

The objective of this course is to demonstrate and calculate the principles of Heat Transfer. The basic laws of Heat Transfer include:

- 1) Always from High Temperature to Low Temperature
- 2) Flows into or out of matter
- 3) Includes Convection
- 4) Includes Conduction
- 5) Includes Radiation
- 6) It is a Transient Energy

Measurable Outcomes

Upon completion of this course the student will be able to predict and calculate:

- 1) Heat Transfer analogy to Electrical Current Flow
- 2) The Resistance of Conduction to Heat Flow
- 3) The Resistance of Convection to Heat Flow
- 4) The Resistance of Radiation to Heat Flow
- 5) The parameters of Convection such as Coefficient of Convection
- 6) Reynolds Number, Nusselt Number, Coefficient of Conduction
- 7) The Radiation concept of Radiosity.