MECH5373 - Thermal Management of Microelectronics

MECH 5373 Thermal Management of Microelectronics (3 semester credit hours) To provide an introduction to thermal phenomena occurring in electronic equipment and to provide an understanding of how basic heat transfer principles can be applied to the thermal design of electronic packages. The course will commence with an introduction to the fundamentals of different heat transfer modes. The calculation of heat loads and temperature fields will be discussed using different cooling techniques. Includes parameter evaluation and design studies for single- and multi-chip modules, printed circuit board, and high-heat-flux cooling. Prerequisites: MECH 3320 and MECH 3351 and MECH 4310. (3-0) R