

MSE/ECE 310 – ELECTRICAL PROPERTIES OF MATERIALS

Outline of Review Notes

1. Elementary Materials Science Concepts
 - a. Atomic structure
 - b. Bonding
 - c. Crystal structure and crystallography
 - d. Brief overview of Thermodynamics as related to the chemical potential
 - e. Brief overview of Diffusion
 - f. Brief overview of thermally activated processes
 - g. Defects
 - i) Point defects – zero dimension
 - ii) Line defects – one dimension
 - iii) Planar or interface defects – two dimension
 - iv) Bulk or volume defects – three dimension