

Faculty of Engineering & Technology

Solid State Physics

Information :

Course Code : EMP221

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Electrical Power Engineering

Instructor Information :

Title	Name	Office hours
Associate Professor	Borham Mohamed Taher El adorousy Ali eldin	1
Assistant Lecturer	Nada El Said Abdallah Hassan Salem	

Description :

Semiconductor material properties: Crystal structure of solids, Introduction to quantum mechanics, Introduction to the quantum theory of solids, Semiconductor in equilibrium, Carrier transport phenomena, Non-equilibrium excess carriers in semiconductors. pn junction: Basic structure, reverse applied bias, junction breakdown, pn junction current, Generation. recombination currents, and Small-signal model of the pn junction.