Summer 2012
Ve320 Introduction to Semiconductor Device
Homework #2, due next Friday (June 1,2012) **before class**

1. RFP, Problem 2.1 (use Matlab or other software if necessary).
2. For Si at room temperature, calculate the density of states in the conduction band ($g_c(E)$), at an energy 100 meV above Ec
3.RFP, Problem 2.5.
4. For a 2-D lattice below, show that the density of states is a constant independent of energy. (*Hint: 1. Assume the crystal has a rectangle shape with a total length of L and width W. 2. E, k, and m* are related by* $E - E_0 = \hbar^2 k^2/(2m^*)$).