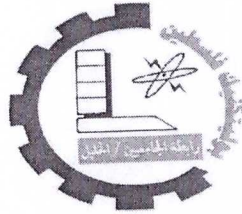بسم الله الرحمن الرحيم

Palestine Polytechnic University

College of Applied Science

Department of mathematics and computer science

Hermitian Matrices

Prepared by

Rawand Diuab Masri

Ruba abd-almo'ez Zatari

Supervisor

Mr Ali Qudaimat

Submitted in partial fulfillment of the requirements for the degree
of B.Sc in Applied Mathematics in (PPU)

Hebron

January 2012

Abstract

In this seminar we talked about an introduction to a special type of matrices which is the Hermitian matrices. This seminar consists of three chapters.

The first chapter , gives some fundamental definitions , theorems and properties from elementary linear algebra related the topics of the seminar .

The second chapter , talked about Hermitian and Skew-Hermitian matrices ,and studies the algebraic properties of each of them.

The third chapter , introduces the eigenvalues and eigenvectors for the Hermitian matrices and how to diagonalize Hermitian matrix through the unitary matrix.