Birzeit University

Physics Department

Phys 4332 Quantum Mechanics II

Instructor: Dr. Hazem Abusara
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Office: Office: Baramki 217
Session: Spring 2022
Office Hours: By Appointment

Lecture Times: MW 11:25–12:40 Room: S.Abdulhadi372/Sci112

Textbooks

- Griffiths, David J, Introduction to Quantum Mechanics, 3^{rd} edition

Course Description

This class is the second course in quantum mechanics, and covers the theory of identical particles, and application of quantum mechanics, such as time independent and dependent perturbation theory, variational principles, WKP approximation and scattering.

Evaluation

Two Midterm-Exam	40%
Homeworks	20%
Final exam	40%

Lecture Schedule

- Spin

- Identical particles
- Time independent perturbation theory
- The Variational Principle
- The WKB approximation
- Time dependent perturbation theory
- Scattering

Assignment Details

Homework will be assigned in the end of each lecture, and are due one week later. You must turn in your homework on the due date; late homeworks will be given a zero grade, otherwise your final grade on the assignment will be reduced by a factor of $e^{-t/24}$, t is the number of elapsed hours after the due time of the assignment.

Homeworks are crucial to understanding the material deeply. After attempting each problem by yourself, you are encouraged to discuss the problems with me and with each other. **However, you must write-up your solutions by yourself**. Your solutions should not be transcriptions or reproductions of someone else's work. **Any copied homeworks will get a grade of zero, and will be considered as plagiarism.**