

PHYS-UA 123 SYLLABUS

Quantum Mechanics I

Fall 2021

Text: Lecture notes will be provided. Following textbooks will be partially covered.

- *Introduction to Quantum Mechanics*, by David Griffiths

prerequisite: Quantum Mechanics I
Instructor: Javad Shabani, Office: 1071, Phone: (212) 992 8629
Class Hours: MW: 11:00-12:15
Student Hours: by appointment
Email: jshabani@nyu.edu

HWs: Weekly basis

Two midterms

Final exam

1. Introduction (Probabilities, Wavefunction etc)
2. Linear Algebra
3. Time independent Schrodinger Equation
4. Schrodinger equation in 3D (Hydrogen Atom, Angular Momentum, Spin)
5. Identical Particles
6. Applications: two level systems, Berry phase, quantum computing