# PHY-308: Quantum Mechanics

# Ismail Zahed

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## Outline

- 1. Historical perspective
- 2. Wave equation
- 3. D=1 problems
- 4. Dirac formalism
- 5. D=3 problems
- 6. Identical particles
- 7. Perturbation theory
- 8. Variational, WKB
- 9. Scattering
- 10. Quantum computing

## Reference Material

- D.J. Griffiths, Quantum Mechanics, Pearson
- N. Zettili, Quantum Mechanics, Wiley

# Grade

The grade will be: Hw (20%) + Mid (40%) + Fin (40%)

## Grader

TBA

# Student Accessibility Support Center Statement:

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, Stony Brook Union Suite 107, (631) 632-6748, or at sasc@stonybrook.edu. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

## **Academic Integrity Statement:**

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic-integrity/index.html

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Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.