STATE UNIVERSITY OF NEW YORK
New Paltz, New York.

Modern Physics
Course No. PHY308 (3 credits)
Spring 2025

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Text

- **Post Newtonian ("Modern") Physics** by Tarun Biswas (download from Brightspace).

Reference

- **Fundamentals of Physics** by D. Halliday, R. Resnick and J. Walker. (not required.)
- **Modern Physics** by Kenneth Krane. (not required.)

Course Description

The following chapters of the text will be covered (some selected sections may be excluded).

Chap. 1	Some Good Old Physics.
Chap. 2	Special Relativity.
Chap. 3	From Waves to Particles and Back.
Chap. 4	The Schrödinger Equation.
Chap. 5	The Structure of Matter – Atoms.

Evaluation

First exam	30%
Second exam	30%
Final exam	40%

Problems for Homework

Chap. 1 – 2, 3, 4, 5, 6, 9, 10, 11, 15, 16, 17, 18.
Chap. 2 – 2, 4, 5, 8, 9, 10, 14, 15, 16, 22, 23, 24, 29, 30, 31, 32.
Chap. 3 – 1, 2, 5, 6, 7, 8, 9, 11, 12, 14, 15, 16.
Chap. 4 – 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13.
Chap. 5 – 1, 2, 3, 4, 5, 6, 7, 8.

Administrative Addenda

Student Learning Outcomes

To acquire basic skills in handling some physical phenomena discovered after the end of the nineteenth century viz. special relativity and quantum physics.

Campus-Wide Policies

https://www.newpaltz.edu/acadaff/academic-policies-including-academic-integrity/

Deadlines

http://www.newpaltz.edu/events/academic.php