Modern Physics
Course No. PHY308 (3 credits)
Spring 2020

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Text

- Post Newtonian (“Modern”) Physics by Tarun Biswas (download from Blackboard).

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

<table>
<thead>
<tr>
<th>Exam</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Midterm exam</td>
<td>40%</td>
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<tr>
<td>Final exam</td>
<td>60%</td>
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Problems for Homework

Chap. 1 – 2, 3, 4, 7, 8, 9, 13, 14, 15, 16.
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.

Academic Integrity Policy

http://www.newpaltz.edu/ugc/policies/policies_integrity.html

Disability Resources

https://www.newpaltz.edu/drc/policy_procedure_manual.html

Veterans Resources

http://www.newpaltz.edu/veterans

Computer and Network Policies

https://sites.newpaltz.edu/csc/policies/acceptable-uses-and-privacy-policy/

Deadlines

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