

Lecture Notes for PHYSICS 344 “Modern Physics”

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Lecture 1, M 8/19/2013

Summary of Lecture 1

- Intro instructor team
- Went over course organization & policy: see http://www.physics.purdue.edu/webapps/index.php/course_document/index/phys344/1622/21/12749
- Lecture 1 Joke: “physicists think they are...”
- Intro the class

Additional Learning Resources

Course website/notes from other universities:

<http://budker.berkeley.edu/Physics132/>

http://riedo.gatech.edu/Teaching/Modern_Physics/web_page.htm

<http://physics.syr.edu/courses/PHY361.05Fall/syllabus.html>

<http://skipper.physics.sunysb.edu/~joanna/Lectures/PHY-251-252/PHY251/>

<http://uw.physics.wisc.edu/~rzchowski/phy107/index.htm>

<http://www.physics.wisc.edu/undergrads/courses/spring2013/241/>

<http://www.colorado.edu/physics/EducationIssues/ModernPhysics/index.html>

Similar “modern physics” is also taught as “quantum physics” in some universities, eg.

<http://ocw.mit.edu/courses/physics/8-04-quantum-physics-i-spring-2006/lecture-notes/>

Additional books on Modern Physics

Randy Harris's Modern Physics (2007):

<http://www.scribd.com/doc/36652349/Harris-Randy-Modern-Physics-2E-PDF>

Modern Physics by Raymond A. Serway, Clement J. Moses & Curt A. Moyer

<http://www.amazon.com/Modern-Physics-Raymond-Serway/dp/0534493394>

Modern Physics from A to Z, by James W. Rohlif

<http://www.amazon.com/Modern-Physics-James-William-Rohlif/dp/0471572705>

Older classic:

AP French's "Introduction to Quantum Physics" & "Special Relativity" (MIT introductory physics series)

<http://www.amazon.com/Introduction-Quantum-Physics-M-I-T-Introductory/dp/0393091066>

http://www.amazon.com/Special-Relativity-M-I-T-Introductory-Physics/dp/0393097935/ref=pd_bxgy_b_text_y

Next Lecture (Lecture 2)

- What is “modern physics”, an overview
- Orders of magnitude