REQUIRED TEXTS & MATERIALS:
- Physics by Cutnell & Johnson, Vols, 1 & 2, 6th ed.
- Worksheets for Physics 113 Laboratory, 13th ed. (2005)
- WebAssign Registration Access Card

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Announcements:
- Course Home Page: http://www.physics.ohio-state.edu/ and click on "Courses" and then on "Physics 113"
- Free tutor service available in SM 1011A
- All reading, problem, and question assignments listed below refer to the Cutnell & Johnson textbook.
- Homework is submitted on-line via WebAssign. WebAssign web page: https://www/webassign.net/osu/student.html
- See the "Welcome to Students of Physics 113" packet for course policies.

Abbreviations:
L = lecture, R = recitation, SAT = Self-Assessment Test (on Cutnell&Johnson website).

First Week
Laboratory: NO LAB
Homework: Make sure that you can log into WebAssign successfully. See new instructions about login using your OSU computer name.

Lecture and Recitation Assignments:
Jan. 3 L Sound Waves and Linear Superposition
(Read Ch. 16 S 1, 2, 5 - 7, 11; Ch. 17 S 17.1,17.2)
4 R Answer Ch 16 Q3 (Recitation Problems: Ch16 P3, 31, 35, Ch17 P2)
5 L Standing Waves; Beats (Read Ch. 16, S3; Ch. 17 S 4 - 6)

Second Week
Laboratory: Introduction and Oscilloscope
Homework: Ch 16: P34, 48, 88; Ch 17: P4, 6, 20, 24, 25, 34, 38, 46
Homework #1 due Wednesday, Jan 11th at 4 pm

Lecture and Recitation Assignments:
Jan. 9 R Answer questions Ch 16 Q11, 12 and Ch 17 Q1, Q13
10 L Interference of Light (Read Ch. 27 S 1, 2)
11 R Quiz 1
12 L Thin films (Read Ch. 27 S 3, 10)
Third Week
Laboratory: Interference of Sound Waves
Homework: Ch 27: P2, 3, 6, 9, 10, 11, 12, 13, 14
   Homework #2 is due Wednesday, Jan 18th at 4 pm
Lecture and Recitation Assignments:
Jan.  16 R  Holiday - Martin Luther King Day
17 L   Diffraction and Gratings (Read Ch. 17 S3; Ch 27 S5, 7)
18 R   Quiz 2
19 L   Resolving Power; Polarization
   (Read Ch. 27 S6; Ch. 24 S6, Example 10 in S7)
Announcement: January 20th is the last day to drop without a W

Fourth Week
Laboratory: Standing Waves
Homework: Ch 27: P20, 21, 24, 28, 33, 38, 39, 49 and Ch 24; P34, 36
   Homework #3 is due Wednesday, Jan 25th at 4 pm
Lecture and Recitation Assignments:
Jan.  23 R  Answer questions: Ch 24 Q11 and Ch 27 Q7, Q13
24 L   Special Relativity and Time Dilation (Read Ch. 28 S1 - 3)
25 R   Quiz 3
26 L   Length Contraction; Relativistic Momentum & Energy (Read Ch. 28 S4 - 6, 8)

Fifth Week
Laboratory: Optical Spectrometry
Homework: Ch 28: P2, 4, 6, 9, 12, 17, 20, 22, 24, 25
   Homework #4 is due Wednesday, Feb 1st at 4 pm
Lecture and Recitation Assignments:
Jan.  30 R  Answer questions: Ch 28 Q4, Q7, Q11
31 L   Blackbody Radiation; Photoelectric Effect
   (Read Ch. 29 S 2, 3, Example 7 in S7)
Feb.   1 R   Quiz 4
2 L   Compton Effect; Bohr Model (Read Ch. 29, S4; Ch. 30 S1 - 3)

Sixth Week
Laboratory: Photoelectric Effect
Homework: Ch 29: P3, 4, 7, 8, 13, 16, 42; and Ch 30: P9
   Homework #5 is due Wednesday, Feb 8th at 4 pm
Lecture and Recitation Assignments:
Feb.   6 R  MIDTERM EXAM in recitation room
7 L   Bohr Atom (continued); Wave-Particle Duality (Read Ch. 29 S1, 5, Example 8 in S7; Ch. 30 S3; Example 11 in S11)
8 R   Answer questions: Ch 29 Q1, Q2, Q7
9 L   Matter Waves; Energy Levels from Standing Wave (Ch 30 S4, P52)
Seventh Week
Laboratory: NO LABS
Homework: Ch 29: P24, 28, 40; and Ch 30: P4, 8, 12, 16, 45, 50
Homework #6 is due Wednesday, Feb 15th at 4 pm
Lecture and Recitation Assignments:
Feb. 13 R Answer questions: Ch 29 Q12 and Ch 30 Q3
14 L Uncertainty Principle (Read Ch. 29, S6)
Quantum Mechanics of Atoms (Read Ch 30 S5, 6)
15 R Quiz 5
16 L X-rays and Lasers (Ch 30 S7, 8, Example 12 in S11)
Announcement: Feb. 17th is the last date to drop without petition.

Eighth Week
Laboratory: Multichannel Analyzer
Homework: Ch. 29: P32, 33, 36; and Ch. 30: P34, 36, 39
Homework #7 due Wednesday, Feb 22nd at 4 pm
Lecture and Recitation Assignments:
Feb. 20 R Answer questions: Ch 30 Q11, Q12
21 L Structure of Nucleus (Read Ch 31 S1-3)
22 R Quiz 6
23 L Radioactivity (Read Ch 31 S4, 5, Example 13 in S10)

Ninth Week
Laboratory: Background Radiation & Shielding
Homework: Ch 31 P3, 7, 12, 14, 26, 48
Homework #8 is due Wednesday, Mar 1st at 4 pm
Lecture and Recitation Assignments:
Feb. 27 R Answer questions: Ch 31 Q1, Q6, Q8
28 L Decay Rates; Biological Effects of Radiation
(Read Ch 31 S6-8 and Ch 32 S1, Example 8 in S8)
Mar. 1 R Quiz 7
2 L Nuclear Reactions; Fission (Read Ch 32 S2-4)

Tenth Week
Laboratory: Radioactive Decay & Radon
Homework: Ch. 31: P29, 30, 34, 38, 40, 44; Ch. 32: P3, 4, 7
Homework #9 due Wednesday, Mar 8th at 4 pm
Lecture and Recitation Assignments:
Mar. 6 R Answer questions: Ch 31 Q9, Q11
7 L Nuclear Fusion; Elementary Particles (Read Ch 32 S5, 6)
8 R Answer questions: Ch 32 Q10
9 L Nuclear Medicine

FINAL EXAM
Final exam (in recitation room) on MONDAY, MARCH 13, 2006 at 3:30 - 5:18 PM