

Physics 112 - Syllabus/Assignment Sheet - Winter 2007

**MODIFIED DUE TO BAD WEATHER**

**REQUIRED TEXTS & MATERIALS**

Physics by Cutnell & Johnson, Vol. 2, 7th ed.  
Worksheets for Physics 112 Laboratory, 12th ed. (2005)  
WebAssign Registration Access Card.

**LECTURERS:** Prof. Pelz ([pelz.2@osu.edu](mailto:pelz.2@osu.edu)), Prof. Reay ([reay@mps.ohio-state.edu](mailto:reay@mps.ohio-state.edu)),  
Prof. Kovchegov ([yuri@pacific.mps.ohio-state.edu](mailto:yuri@pacific.mps.ohio-state.edu))

**COURSE MANAGER:** Dr. M. Rallis - SM1036B, 292-4464, [rallis.1@osu.edu](mailto:rallis.1@osu.edu)

**WebAssign ADMINISTRATOR:** Dr. Bolland - SM5059, 292-8065 [Bolland.1@osu.edu](mailto:Bolland.1@osu.edu)

**Course Home Page:** <http://www.physics.ohio-state.edu/> And click on "Courses" and then on "Physics112"

**WebAssign:** <https://www.webassign.net/osu/student.html>

Free tutor service available in SM1011A

All reading, problem, and question assignments listed below refer to the Cutnell & Johnson textbook. Homework is submitted on-line via WebAssign

See the "Welcome to Students of Physics 112" packet for course policies.

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

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**WEEK 1 - NO LAB**

Jan. 3 R Course Information Distributed; Ch 4 P69; Ch 6 P78  
4 L1 Electric Charge and Force (Ch. 18 S1-5; SAT 18.1)

**HOMEWORK #0 (WebAssign tutorial) Due Sunday January 7 at 11:30 PM**

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**WEEK 2 - LAB 1: Electric Force & Electric Charge**

Jan. 8 R Ch. 18 Q3,5,6,8; demonstration problem  
9 L2 Electric Field (Ch 18 S6-8,10,11)

**HOMEWORK #1 (Ch 18: P3,10,17,30,55) Due Tuesday, January 9 at 11:30 PM**

10 R **QUIZ 1**; group work (*see* Ch 18 Q10, 11, 13)  
11 L3 Electric Field and Electric Potential (Ch.18 S6-8,10; Ch 19 S1-2)

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**WEEK 3 - NO LAB**

Jan. 15 **Holiday:** Martin Luther King Day  
16 L4 Electric Potential (Ch. 19 S1-4; SAT 19.1)  
17 R Ch 19 Q1, 6, 15; demonstration problem  
18 L5 Capacitors, Batteries, and Current (Ch 19 S4,5,7 page 566; SAT 19.2; Ch 20 S1)  
19 *Last Day to drop without a "W"*

**HOMEWORK #2 (Ch 18: 34,65; Ch 19: P2,3,4,26,30,49,54,56) Due Friday, January 19 at 11:30 PM**

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**WEEK 4 - LAB 2: Electric Resistance & Potential**

Jan. 22 R **QUIZ 2**; group work  
23 L6 Current, Resistance, Power (Ch 20 S1-4)  
24 R Ch 19 Q17; Ch 20 Q4, 5; demonstration problem  
25 L7 Circuits (Ch 20 S6-9, page 597; SAT 20.1)

**HOMEWORK #3 (Ch19: P36,38,39,42; Ch 20: P4,11,23,100) Due Friday, January 26 at 11:30 PM**

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**WEEK 5 - LAB 3: Circuits & Ohm's Law (A)**

Jan. 29 R **QUIZ 3**; group work  
30 L8 Magnetic Field; Magnetic Force (Ch. 21 S1-3)  
31 R Ch 20 Q13; Ch 21 Q2, 3; demonstration problem  
Feb. 1 L9 Magnetic Force and Applications (Ch. 21 S3-5; SAT 21.1)

**HOMEWORK #4 (Ch 20: P41,44,48,58,62,63,64; Ch 21: P2,3,66) Due Friday, February 2 at 11:30 PM**

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**WEEK 6 - LAB 4: Circuits & Ohm's Law (B)**

- Feb. 5 R **MIDTERM** (Ch. 18,19,20) in recitation room  
6 L10 Magnetic Torque and Applications (Ch. 21 S6,10)  
7 R Ch 21 Q5, 7, 8, 9; demonstration problem  
8 L11 Magnetic Fields due to Currents; Magnetic Materials (Ch. 21 S7,9; SAT 21.2)

**HOMEWORK #5** (Ch 21: P4,10,14,26,28,29,35,36,38) **Due Friday, February 9** at 11:30 PM

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**WEEK 7 - LAB 5: Deflection of Electrons**

- Feb. 12 R **QUIZ 4**; group work  
13 Lecture – **Cancelled due to weather**  
14 Recitation - **Cancelled due to weather**  
15 L12 Electromagnetic Induction; Faraday's Law (Ch. 22 S1-5; SAT 22.1)  
Feb. 16 *Last day to drop without petition*
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**WEEK 8 – LAB 5: Deflection of Electrons (only for labs cancelled in Week 7 due to weather emergency)**

- Feb. 19 R Ch 21 Q13, 17; Ch 22 Q4, 12; P31; demonstration problem  
20 L13 Applications of Faraday's Law (Ch. 22 S6,7,9,10; SAT 22.2)

**HOMEWORK #6** (Ch 21: P46,47,52,72; Ch. 22: P16,20,24,64) **Due Tuesday, February 20** at 11:30 PM

- 21 R **QUIZ 5**; group work  
22 L14 Waves, EM Radiation/Light; (Ch. 16 S1,2; Ch 24 S1-3)
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**WEEK 9 - NO LAB**

- Feb. 26 R Ch 22 Q14; Ch 16 Q4, 11; demonstration problem  
27 L15 Light Rays, Reflection, Mirrors (Ch. 25 S1-3; SAT 25.1)

**HOMEWORK #7** (Ch 22: P38,40,54,66; Ch 16: P2,6; Ch 24: P12,18;) **Due Tuesday, February 27** at 11:30 PM

- 28 R **QUIZ 6**; group work  
Mar. 1 L16 Lenses, Images (Ch. 26 S6-8)
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**WEEK 10 - LAB 6: Geometrical Optics I**

- Mar. 5 R Ch 25 Q2; Ch 26 Q16, 19, demonstration problem  
6 L17 Images, Refraction (Ch. 26 S1,2,8 SAT 26.1)

**HOMEWORK #8** (Ch 25 P2,5,32,36; Ch 26 P44,49,56,104) **Due Tuesday, March 6** at 11:30 PM

- 7 R **QUIZ 7**; Ch. 26 Q2, 3, 7, demonstration problem  
8 L18 Refraction (Ch. 26 S1,2)

**HOMEWORK #9 (Reduced - Ch 26 P4,10,18,22) Due Friday, March 9** at 11:30 PM

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**FINAL EXAM SCHEDULE**

**Your Final Exam will be held in your recitation room**

**12:30 Section:** Final Exam held on **MONDAY, March 12, 2007** at **11:30 AM - 1:18 PM**

**1:30 Section:** Final Exam held on **TUESDAY, March 13, 2007** at **1:30 PM - 3:18 PM**

**2:30 Section:** Final Exam held on **WEDNESDAY, March 14, 2007** at **1:30 PM - 3:18 PM**

Make NO commitment that conflicts with your scheduled final exam listed above.

See the course manager, Dr. Rallis (office SM 1036B, email: [rallis.1@osu.edu](mailto:rallis.1@osu.edu)), by Friday, Jan. 26<sup>th</sup> if a conflict exists.