PHYSICS 1200 SYLLABUS/ASSIGNMENT SHEET Summer 2012

LECTURER            Section    Office    Phone    e-mail
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WebAssign Administrator:  Dr. K. Bolland – SMITH 1106D, 292-8065, bolland.1@osu.edu

REQUIRED TEXTS & MATERIALS:

Worksheets for Physics 111 Laboratory, 17th ed. (2008)

WebAssign Access Card

POLICIES AND WEBSITE:
See the “Welcome to Students of Physics 1200 - 1201” packet for course policies.
Course Home Page: http://www.physics.ohio-state.edu/~phys111

MidTerm 1 EXAM (in recitation room): Mon July 9

MidTerm 2 EXAM (in recitation room): Mon July 23

FINAL EXAM (in recitation room):

SECTION LECTURE TIME     FINAL EXAM DATE AND TIME

10:05            Wed August 8  10:00 - 11:45 AM

Make no commitment that conflicts with your scheduled final examination. See Course Manager Dr. Ziegler by Fri July 6 if a conflict exists.

SCHEDULE AND ASSIGNMENTS
Reading, homework, etc. assignments on the following pages refer to Cutnell & Johnson, 8th ed.

Homework is submitted online via the WebAssign web page: https://www.webassign.net/osu/student.html

See On-Line Homework Instruction sheet for login instructions, etc.
### Abbreviations

L = lecture, R = recitation and tutoring, Ch = chapter, P = problem, S = section, HW = homework.

CQ = Conceptual Questions and CP = Concepts & Calculations (Problems) are available at the end of the OSU Custom 8th ed.

If you are not using OSU Custom 8th ed. you can access CQ and CP demo problems on Carmen or via the course home page [http://www.physics.ohio-state.edu/~phys111](http://www.physics.ohio-state.edu/~phys111).

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### WEEK 1

#### LAB:

- **NO QUIZ this week; Kinematics in 1 Dimension (Lab 1)**
  (Lab 1 starts on Thu or Fri depending on Recitation Section)

<table>
<thead>
<tr>
<th>Jun 18 M</th>
<th>R1</th>
<th>Assignment Sheets, Math Test; Demo Problem (Ch1 P4), Trig Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 T</td>
<td>L1</td>
<td>Displacement, Velocity, Acceleration (Read Ch1 S2 – 3; Ch2 S1 – 3)</td>
</tr>
<tr>
<td></td>
<td>L2</td>
<td>Constant Acceleration (Read Ch2 S4 – 8)</td>
</tr>
</tbody>
</table>

**HW0:** ONLINE HOMEWORK #0 due at 11:00 PM  
(Log into WebAssign and complete the WebAssign Tutorial)

| 20 W | R2 | Demo Problems (Ch2 P10, 18, CP 88); Ch2 CQ 1, 2, 5, 6, 8 |
| 21 R | L3 | Trigonometry and Vectors (Ch1 S4-9)                        |
|      | L4 | Vectors and Projectile Motion (Ch3 S1 – 3, 5)              |

**HW1:** ONLINE HOMEWORK #1 due at 11:00 PM  
(Ch2: P6, 20, 27, 29, 35, 51, 52, 55, 77, 82, 79)

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### WEEK 2

#### LABS:

- **Projectile Motion (Lab 2); Forces and Vectors (Lab 3)**

<table>
<thead>
<tr>
<th>Jun 25 M</th>
<th>R3</th>
<th>QUIZ 1; Demo Problems (Ch1 P39; Ch3 P75); Ch 1 CQ 12, 13; Ch 3 CQ 3, 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 T</td>
<td>L5</td>
<td>Newton’s Laws, Forces (Ch 4 S1 – 5, Example 20 on p. 122)</td>
</tr>
<tr>
<td></td>
<td>L6</td>
<td>Gravitational Force (Ch 4 S6-7)</td>
</tr>
</tbody>
</table>

**HW2:** ONLINE HOMEWORK #2 due at 11:00 PM  
(Ch 1: P36, 37, 61, 62; Ch 3 P3, 9, 12, 16, 22, 29, 35)

| 27 W | R4 | QUIZ 2; Demo Problems (Ch4 P7, 12, 28); Ch4 CQ 5, 6, 10, 15          |
| 28 R | L7 | Normal Force, Tension, Friction (Ch 4 S8 – 10)                       |
|      | L8 | Applications of Newton’s Laws (Ch 4 S11 - 13)                        |

**HW3:** ONLINE HOMEWORK #3 due at 11:00 PM  
(Ch3 P68, 70; Ch4 P1, 4, 8, 11, 14, 15, 17, 30)

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*Friday June 29 is the last day to drop this class without a “W”*
LAB: Forces and Motion (Lab 4)
Jul 2 M R5 QUIZ 3; Demo Problems (Ch4 P72, 75, 105, CP 113); Ch4 CQ 18, 23
3 T L9 Circular Motion (Ch5 S1-4, 7-8)
L10 Work and Energy (Ch 6 S1-3, Example 15 on page 183-184)
HW4: ONLINE HOMEWORK #4 due at 11:00 PM
(Ch4 P38, 40, 46, 56, 67, 76, 81, 98, 102, 106, 109)

4 W Holiday (Happy July 4th) No Lab on Thu or Fri this week
5 R L11 Conservation of Energy, Power (Ch 6 S4-8, 10)
L12 Momentum, Impulse, Conservation of Momentum (Ch 7 S1-2)
6 F HW5: ONLINE HOMEWORK #5 due at 11:00 PM
(Ch 5: P5, 13, 21, 41, 46; Ch 6 P4, 6, 15, 17, 18, 24,)

LABS: Circular Motion (Lab 5); Energy Conservation (Lab 6)
Jul 9 M R6 Mid Term 1 (includes show-work problems)
Demo Problems (Ch5 P55; Ch6 P8, 32; Ch7 P13); Ch6 CQ2, Ch7 CQ 13
10 T L13 Collisions; Center of Mass (Ch 7 S3, 5, 6)
L14 Rotational Kinematics (Ch 8 S1-5)
HW6: ONLINE HOMEWORK #6 due at 11:00 PM
(Ch6 P33, 40, 41, 62, 78, 80, 82; Ch7 P6, 8, 11, 17, 19)

11 W R7 QUIZ 4; Demo Problems (Ch7 P33, CP 63, Ch8 P20); Ch8 CQ 3, 6
12 R L15 Torque; Static Equilibrium Examples (Ch 9 S1, 2, 3)
L16 Newton’s 2nd Law for Rotation (Ch 9 S4)
13 F HW7: ONLINE HOMEWORK #7 due at 11:00 PM
(Ch7 P31, 32, 49, 51, 63; Ch8 P9, 13, 17, 23, 30) Ch8: P38

LABS: Linear Momentum (Lab 7); Torque and Rotational Motion (Lab 8)
Jul 16 M R8 QUIZ 5; Demo Problems (Ch9 P8, P26, 36) Ch9 CQ2, 8, 13, 14
17 T L17 Rolling Motion, Rotational Work and Energy (Ch8 S6, Ch9 S5)
L18 Conservation of Angular Momentum (Ch9 S6)
HW8: ONLINE HOMEWORK #8 due at 11:00 PM
(Ch 9 P1, 4, 12, 16, 22, 25, 31, 32, 37)

18 W R9 QUIZ 6; Demo Problems (Ch9 P52, 57, 66) Ch9 CQ18, 20
19 R L19 Simple Harmonic Motion (Ch10 S1, S2)
L20 Energy in SHM; Pendulum (Ch10 S3, S4)
20 F HW9: ONLINE HOMEWORK #9 due at 11:00 PM
(Ch 8 P54; Ch 9 P31, 34, 37, 41, 48, 54, 71, 72)

Friday July 20 is the last day to drop without petition to dean of your college
WEEK 6

LABS: (Lab9 - To be announced)

Jul  23 M    R10  Mid Term 2 (includes show-work problems)
                         Demo Problems (Ch10 P4, 16, 28, 45) Ch10 CQ4, 9, 13
   24 T    L21  Damped/driven SHM; Resonance (Ch10 S5, S6)
            L22  Density and Pressure (Ch11 S1 – S6)
HW10: ONLINE HOMEWORK #10 due at 11:00 PM
              (Ch10 P2, 5, 9, 15, 19, 26, 32, 34, 43, 46))

   25 W    R11  QUIZ 7; Demo Problems (Ch11 P4, 20, 25, 38, 47) Ch11 CQ3, 4, 7
   26 R    L23  Fluids, Bernoulli’s Equation (Ch11 S9 – S10)
            L24  Waves (Ch16 S1 – S6)
HW11: ONLINE HOMEWORK #11 due at 11:00 PM
              (Ch11 P2, 3, 5, 9, 15, 21, 33, 36, 40, 49)

WEEK 7

LABS: Introduction to Waves (Lab 10); Interference of sound waves (Lab 11)

Jul  30 M    R12  QUIZ 8; Demo Problems (Ch11 P57; Ch16 P6, 9, 20) Ch11 CQ 23, 25
   31 T    L25  Sound Intensity (Ch16 S7 – S8)
            L26  Interference; Diffraction (Ch17 S1 – S4)
HW12: ONLINE HOMEWORK #12 due at 11:00 PM
              (Ch11 P55, 63, 67, 72; Ch16: P1, 26)

Aug  1 W    R13  QUIZ 9; Demo Problems (Ch16 P55, 58, 70) Ch16 CQ9, 10, 13
   2 R    L27  Transverse Standing Waves (Ch17 S5)
            L28  Longitudinal Standing Waves (Ch17 S6 - S8)
3    F    HW13: ONLINE HOMEWORK #13 due at 11:00 PM
              (Ch16 P53, 67, 80, 95, 96, 98; Ch17: P2, 16, 21)
HW14: ONLINE HOMEWORK #14 no deadline, no grade points
              (Ch17 P27, 42, 54, 57, 61)

WEEK 8

Finals Week

Aug 6 - 10  Final Exam information is on the first page of this document.

Course grade points distribution

Scores from best 7 of 9 Quizzes and best 10 of 11 Labs are considered.

7 Quizzes x 20 = 140
10 Labs x 11 = 110
Home Work = 70

Mid Term 1 = 90
Mid Term 2 = 90
Final = 200

Total = 700