## Physics 111 - Spring 2006

<table>
<thead>
<tr>
<th>Section</th>
<th>Instructor</th>
<th>Telephone</th>
<th>Office</th>
<th>E-mail</th>
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<tbody>
<tr>
<td>2:30 pm</td>
<td>Prof. Beacom</td>
<td>247-8102</td>
<td>PRB M2004</td>
<td><a href="mailto:beacom@mps.ohio-state.edu">beacom@mps.ohio-state.edu</a></td>
</tr>
<tr>
<td>3:30 pm</td>
<td>Prof. Lafyatis</td>
<td>292-2286</td>
<td>PRB 4186</td>
<td><a href="mailto:lafyatis@mps.ohio-state.edu">lafyatis@mps.ohio-state.edu</a></td>
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<tr>
<td>4:30 pm</td>
<td>Dr. Bolland</td>
<td>292-8065</td>
<td>SM 5059</td>
<td><a href="mailto:bolland@mps.ohio-state.edu">bolland@mps.ohio-state.edu</a></td>
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**Course Supervisor:** Dr. Rallis - room 1036B SM, 292-4464, rallis1@osu.edu

**WebAssign Administrator:** Dr. Bolland - room 5059 SM, 292-8065, bolland@mps.ohio-state.edu

**Textbook:** Cutnell & Johnson, Physics, 6th edition (Wiley)

**Homework:** from Cutnell & Johnson, submitted online via WebAssign

See the "Welcome to students of physics 111" handout for course policies.

L = lecture,  R = recitation, SAT = self-assessment test (Wiley website)

### First Week - LAB 1: Introduction to Computer

- Mar 27  R  Math Tests; Assignment Sheets; Ch1: P1
- Mar 28  L  Displacement, Velocity, Acceleration - read Ch 1 S2-5; Ch 2 S1-3
- Mar 29  R  Ch 2: Q1,6,7,8; P10
- Mar 30  L  Constant Acceleration - read Ch2 S4-8; do SAT 2.2,2.3

**Homework #0** due at 11:30 pm (WebAssign tutorial)

- Mar 30  R  homework #1 due at 11:30 pm (Ch 1: 4; Ch2: 4,5,6,7,60)
- Mar 31  L  Optional Trig Review Sessions

### Second Week - LAB 2: Distance and Velocity

- Apr 3  R  QUIZ 1: group learning
- Apr 4  L  Trigonometry and Vectors - read Ch 1 S4-9
- Apr 5  R  Ch 2: Q10,11,12; Demonstration Problem
- Apr 6  L  Vectors and Projectile Motion - read Ch 3 S1-3; do SAT 3.1

**Homework #2** due at 11:30 pm (Ch2: 14,23,26,28,44,46; Ch 1: 22,28,33,34)

### Third Week - LAB 3: Force Table

- Apr 10  R  QUIZ 2; group learning
- Apr 11  L  Projectile Motion and Relative Velocity - read Ch 3 S3-5; do SAT 3.2
- Apr 12  R  Ch 3: Q2,5,8; Demonstration Problem
- Apr 13  L  Newton's Laws, Forces - read Ch 4 S1-5, Example 20 (page 111)

**Homework #3** due at 11:30 pm ("Ch 3: 6,13,20,22,27,35,48,52,54,61"

- Apr 14  R  Last Day to drop without a "W"

### Fourth Week - NO LAB

- Apr 17  R  QUIZ 3; group learning
- Apr 18  L  Applications of Newton's Laws - read Ch 4 S6,8,10, do SAT 4.1
- Apr 19  R  Ch 3: Q11,13; Ch 4: Q1,3,5; Demonstration Problem
- Apr 20  L  Gravitational Force - read Ch 4 S7
- Apr 21  R  homework #4 due at 11:30 pm (Ch 1: 42; Ch 2: 22,77; Ch3: 31,56; Ch 4: 2,11,14,20,34)
fifth week - LAB 4: Acceleration & Inclined Ramps
Apr 24 R  QUIZ 4; group learning
Apr 25 L  Applications of Newton's Laws - read Ch 4 S11,12
Apr 26 R  Ch 4: Q12,26,27; Demonstration Problem
Apr 27 L  Friction - read Ch 4: S9; Pressure - read Ch 11 S1-2
Apr 28 homework #5 due at 11:30 pm (Ch 4: P18,24,26,34,36,46,50,67,93,98)

sixth week - NO LAB
May 1 R  MIDTERM in recitation room
May 2 L  Circular Motion - read Ch 5 S1-4,7,8; do SAT 5.1
May 3 R  Ch 4: Q18,20; Ch 5: Q3,5; Demonstration Problem
May 4 L  Work - read Ch 6 S1-3, Example 15 (page 169); do SAT 6.1
May 5 homework #6 due at 11:30 pm (Ch 4: P38,40,60,64,66,68,76,89; Ch 5: 2,12,19,37)

seventh week - LAB 5: Force & Motion
May 8 R  QUIZ 5; group learning
May 9 L  Conservation of Energy - read Ch 6 S4-6,8,10; do SAT 6.2
May 10 R  Ch 5: Q8,11; Ch 6: Q5,7; Demonstration Problem
May 11 L  Power - read Ch 6 S7; Momentum and Impulse - read Ch 7 S1,2; do SAT 7.1
May 12 homework #7 due at 11:30 pm (Ch 5: 18, 20,48; Ch 6: 3,8,12,23,26,27,36,38)
May 12 *Last day to drop without petition*

eighth week - LAB 6: Collisions and Impulse
May 15 R  QUIZ 6; group learning
May 16 L  Momentum Conservation and Collisions - read Ch 7 S3,5,6
May 17 R  Ch 6: Q14,16; Ch7: Q1,3; Demonstration Problem
May 18 L  Rotational Motion: Kinematics - read Ch 8 S1-5 do SAT 8.1, 8.2
May 19 homework #8 due 11:30 pm (Ch 6: 48,58,72,73; Ch 7: 4,16,18,22,48,52)

ninth week - LAB 7: Torque  (Monday labs only)
May 22 R  QUIZ 7; group learning
May 23 L  Torque; Static Equilibrium - read Ch 9 S1,2
May 24 R  Ch 7: Q6,13; Ch 8: Q3,6 Demonstration Problem
May 25 L  Newton's 2nd Law for Rotation - read Ch 9 S3,4; do SAT 9.1
May 26 homework #9 due at 11:30 pm (Ch 7: 6,8,25,32,37,42; Ch 8: 4,5,6,16,20,26)
**tenth week - LAB 7**: Torque (Tu, W, Th, F labs)

May 29  R  **HOLIDAY**

May 30  L  Applications of Newton's 2nd Law for Rotation - read Ch 9 S4; Example 15 (page 253)

May 31  R  Ch 9: Q2,10,14; Demonstration Problem

June 1  L  Rotational Dynamics - read Ch 8, S6; Ch 9 S5

June 2  homework #10 due at 11:30 pm (Ch 8: 28,32,37,40; Ch 9: 2,4,12,16,23,24,28,30)

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FINAL EXAM for 2:30 class, **Monday, June 5, 2006, 1:30-3:18 pm** in recitation room

FINAL EXAM for 3:30 class, **Wednesday, June 7, 2006, 3:30 - 5:18 pm** in recitation room

FINAL EXAM for 4:30 class, **Monday, June 5, 2006, 3:30 - 5:18 pm** in recitation room

Make no commitment that will conflict with your scheduled final examination.

See the course supervisor (Dr. Rallis) by April 28 if a conflict exists.

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Course web site at [http://www.physics.ohio-state.edu/~phys111/](http://www.physics.ohio-state.edu/~phys111/)

Web Assign at [https://www.webassign.net/osu/student.html](https://www.webassign.net/osu/student.html)

Free tutor service available in SM 1011A