

## Ph 1a Fall 2011

### Course Calendar

#### Week 1

9/26	Mon	<b>Required Reading:</b> Frautschi Chapter 1
9/27	Tues	<b>Suggested Reading:</b> Feynman Vol. I Chapters 1, 2, 8
9/28	Wed	<b>Lecture #1:</b> Introduction <b>HW #1:</b> QP1, QP17; Frautschi Chapter 3, problems 10, 13
9/29	Thurs	<b>Required Reading:</b> Frautschi Chapter 2
9/30	Fri	<b>Lecture #2:</b> Falling bodies, derivatives

#### Week 2

10/3	Mon	<b>Required Reading:</b> Frautschi Chapters 3, 4
10/4	Tues	<b>Suggested Reading:</b> Feynman Vol. I Chapter 11
10/5	Wed	<b>Lecture #3:</b> Integrals and Intertia <b>HW #2:</b> QP9, QP43; Frautschi Chapter 4, problems 17, 20 <b>HW #1</b> due <b>Quiz #1</b> handed out
10/6	Thurs	<b>Required Reading:</b> Frautschi Chapter 5
10/7	Fri	<b>Lecture #4:</b> Vectors

#### Week 3

10/10	Mon	<b>Required Reading:</b> Frautschi Chapter 6 <b>Quiz #1</b> due
10/11	Tues	<b>Suggested Reading:</b> Feynman Vol. I Chapters 9, 7
10/12	Wed	<b>Lecture #5:</b> Newton's laws <b>HW #3:</b> QP3, QP4; Frautschi Chapter 7, problems 16, 17 <b>HW #2</b> due
10/13	Thurs	<b>Required Reading:</b> Frautschi Chapter 7
10/14	Fri	<b>Lecture #6:</b> Gravitation & circular motion

#### Week 4

10/17	Mon	<b>Required Reading:</b> Frautschi Chapter 8
10/18	Tues	<b>Suggested Reading:</b> Feynman Vol. I Chapter 12
10/19	Wed	<b>Lecture #7:</b> Forces of Nature <b>HW #4:</b> QP20, QP21, QP28; Frautschi Chapter 9, problem 6 <b>HW #3</b> due <b>Quiz #2</b> handed out
10/20	Thurs	<b>Required Reading:</b> Frautschi Chapter 9
10/21	Fri	<b>Lecture #8:</b> Non-Inertial Frames

### Week 5

- 10/24 Mon **Required Reading:** Frautschi Chapter 10  
**Quiz #2** due
- 10/25 Tues **Suggested Reading:** Feynman Vol. I Chapters 4, 13, 14
- 10/26 Wed **Lecture #9:** Energy  
**HW #5:** Frautschi Chapter 10, problems 11, 25, 28, 32  
**HW #4** due
- 10/27 Thurs No reading required
- 10/28 Fri **Lecture #10:** Conservation of Momentum

### Week 6

- 10/31 Mon **Required Reading:** Frautschi Chapter 11
- 11/1 Tues **Suggested Reading:** Feynman Vol. I Chapters 10, 21, 23, 24
- 11/2 Wed **Lecture #11:** Oscillatory Motion  
**HW #6:** FP2, FP10, QP6, QP23  
**HW #5** due  
**Quiz #3** handed out
- 11/3 Thurs **Required Reading:** Frautschi Chapter 12
- 11/4 Fri **Lecture #12:** Oscillatory Motion

### Week 7

- 11/7 Mon **Required Reading:** Frautschi Chapter 13  
**Quiz #3** due
- 11/8 Tues **Suggested Reading:** Feynman Vol. I Chapters 18, 19, 20
- 11/9 Wed **Lecture #13:** Angular Momentum  
**HW #7:** FP5, FP8, QP15, QP16  
**HW #6** due
- 11/10 Thurs **Required Reading:** Frautschi Chapter 14
- 11/11 Fri **Lecture #14:** Rotation of Rigid Bodies

### Week 8

- 11/14 Mon No reading required
- 11/15 Tues **Suggested Reading:** Feynman Vol. II Chapters 40, 41
- 11/16 Wed **Lecture #15:** Fluid Mechanics  
**HW #8:** FP3, FP11, FP17  
**HW #7** due  
**Quiz #4** handed out
- 11/17 Thurs **Required Reading:** Frautschi Chapter 16
- 11/18 Fri **Lecture #16:** Kepler's Laws

**Week 9**

- 11/21 Mon **Required Reading:** Frautschi Chapter 17  
**Quiz #4** due
- 11/23 Wed **Lecture #17:** Solving the Kepler Problem  
**HW #9:** FP4, FP6, FP12, FP18  
**HW #8** due
- 11/24 Thurs **THANKSGIVING HOLIDAY**
- 11/25 Fri **THANKSGIVING HOLIDAY**

**Week 10**

- 11/28 Mon **Required Reading:** Frautschi Chapter 15
- 11/30 Wed **Lecture #18:** Gyroscopes  
**HW #9** due; no new homework  
**Final Exam** handed out
- 12/2 Fri **No lecture**

**Week 11**

- 12/7 Wed **Final Exam Due** at NOON, box outside 201 E Bridge.

WINTER RECESS, December 10 - January 3