

Physics Unit B Outline (Day 1 Sections)

2008-09

<i>Day</i>	<i>Content/Topic</i>	<i>Text</i>	<i>Assignment</i>
1 (Oct 26)	Exam A (Kinematics) Fundamental forces, free-body diagrams, net forces, Mass vs. Weight	4.1	Exercise B1 Ch 4: #1 – 8, 15, 18, 21, 58, 63, 64, 67, 72
2 (Oct 30)	Equilibrium Lab B1 – Balanced Forces	5.3	Ch 5: #45, 61 - 63, 98, 103
3 (Nov 3)	Continue working on Lab B1 and equilibrium problems. Balanced forces and Inertia	4.1	Continue problems from Day 1 and 2 above. Lab analysis and evaluation Video & Worksheet “Newton’s 1 st Law” Ch 4: #9 – 12, 42, 43, 46, 53 Problem of the Week #1 (Buckle Up?)
4 (Nov 5)	Intro Second law; Newton’s 2 nd Law Using Newton’s Laws – net force and acceleration (no resistive forces)		Ch 4: #14, 16, 17, 23, 25 Ch 4: #59 - 62, 68, 73, 74, 82, 87, 89(Going for the A); Exercise B3 (#1-5)
5 (Nov 10)	Vertical Acceleration and apparent changes in weight	4.2	Ch4: #19, 20, 22, 24, 69, 70, 71, 88, Exercise B3 (#6,7)
6 (Nov 12)	Quiz B1 Newton’s 3 rd Law (Action-Reaction) Normal force Drag forces and terminal velocity Lab B2: Investigating terminal velocity	4.2, 4.3	Video: “Newton’s 3 rd Law” Ch4: #32 – 39, 75, 77, 79, 80; Exercise B4 Ch 4: #26, 65, 92 (Going for the A) Ch 4: #45, 56 Lab report
7 (Nov 16)	Continue Newton’s 3 rd Law (Action- Reaction), Normal force Friction and net force, factors affecting friction, static and kinetic friction (horizontal acceleration)	4.2, 4.3	Ch 5: #17 - 27; 30, 32; 56, 57, 90, 91, 92, 94; Exercise B2
8 (Nov 18)	Friction and net force continued Lab B3 – Determining Coeff of Friction	5.2	Portfolio B1 due Continue assignment from Day 7 Lab report
9 (Nov 20)	Quiz B2 Review, continue with Lab B3		
10 (Nov 24)	Energy and Work Done, Classifications of work; Work done up inclines	10.1	Exercise B7 Ch 10: #2, 3, 6, 15, 16, 19, 20, 21, 35 - 37, 42 - 45, 52 - 56, 65, 70
11 (Nov 26)	Work done by force applied at an angle to horizontal; Power	10.1	Portfolio B2 due Ch 10: #4, 5, 7, 60 - 62, 66 Ch 10: #9-13, 17, 18, 38, 39, 46, 57, 59, 63, 71
12 (Nov 30)	Kinetic Energy, Potential Energy, Elastic Energy	11.1	Ch 11: #1 – 3, 11, 34, 36, 44, 54, 57, 59 Ch 11: #4 – 8, 10, 13, 31, 33, 37, 38, 49, 62, 65, 66, 68
13 (Dec 2)	Energy transformations	11.1	Ch 11: #61, 69, 71
14 (Dec 4)	Quiz B3 Introduction to springs (Hooke’s Law)	14.1	Ch 14: #1 – 5, 9, 10, 12, 35 – 37, 60, 69 - 73
15 (Jan 5)	Hooke’s Law and Energy of springs Lab B4: Springs	14.1	Continue Day 17 Lab report
16 (Jan 7)			
17 (Jan 11)	Exam C		Portfolio B3 due
19 (Jan 13)			
20 (Jan 15)			
21 (Jan 19)			End of First Semester Classes
TBA	SEMESTER EXAM		