

| Dr. John P. Cise, Fall 2011 edition 8/22/11 | | Phys. 2425 | | EVENT SCHEDULE | | Usual HW Methodology: Sketch, variables, concept, working eq., do it! | |
|--|-----|--|----------------------------|---------------------|---|---|--|
| Office RGC 323 Phone: 223.3293 | | 2425 | | jpcise@austincc.edu | | Magic Johnson says: "Be a winner! It takes: work ethic & discipline" | |
| Text: Walker, Halliday & Resnick Vol 1, 9 ed.; Pub: Wiley | | | | | | | |
| wk | day | CONCEPTS in Lecture AQ=attendance Quiz(anytime) | Chapter/ section(s) | Lab # | LAB TIME AQ=attendance Quiz(anytime) | HW Solutions due on Test date. HW = 100 Pts MAX. Early HW Extra | |
| 1 | 1st | Intro, Length, mass, time, Scientific Not. | 1 & 2 | | Intro. & Chap. 1,2. AQ | Chapter. 2: 17,25,27,29,35,37,41 | |
| | 2nd | Displacement, Vel., Acceleration | 2(all) | 1 | FREE FALL | 44,51,54,57,59,75. N _{must} = 10 | |
| 2 | 1st | Vectors | 3.1 - 3.7 | 2 | FORCE TABLE | Chap.3:5,9,12,23,26,19. Chap:4:21,23,27 | |
| | 2nd | Projectiles, Centripetal accel. | 4.5-4.7 | 3 | PROJECTILES | 39,42,44,57,59,62,65,90,91. N _{must} = 14 | |
| 3 | 1st | Newton's Laws | 5(all) | | CD: Newton's Laws, AQ | Chap.5; 11,13,21,25,29,33,37,45,53 | |
| | 2nd | Newton's 2nd. Law | 5(all) | 4 | NEWTON'S 2nd Law | 57,67,71,73. N _{must} = 10 | |
| 4 | 1st | Newton's 2nd. Law applications | 6.1 - 6.4 | | CD: TBA AQ | Chap.6: 1,15,19,21,23,29,33,41,49, | |
| | 2nd | Centripetal Force | 6.5 | 5 | CENTRIPETAL FORCE | 51,53,55,81,82. N _{must} = 10 | |
| 5 | 1st | Qt. Term Review for 10 page exam. | | | Review continued | Extra HW pts for >80%(N = 55) & Tidy. | |
| | 2nd | Qt. Term Test: TEST 1 & HW DUE. | | | TEST continued | HW Portfolio due: 80% min = N _{must} =44 | |
| Test Focused Solutions: (1) +/- Vectors & mag. & dir. (2) Kinematics; (3) Projectiles; (4) 2nd law: one Obj. w 2 Forces vertical (5) Newton's 2nd.; 1 obj. multiple Fs-Horizontal; (6) Newton's 2nd: Mult. Obj. & Mult. Fs w possible hills & friction. (7) Centripetal Force: 1 object 1 force-horizantal; (8) Centripetal Force: 1 object w 2 or more forces vertical.; (9)_____. | | | | | | | |
| 6 | 1st | WORK, Kinetic+Potential Energy dot products, Power, W=dK+dU | 7.1 -7.7 & 7.9 3.8 | 6 | ENERGY CONSERVATION | Chap.7: 5,7,13,19,27,43,46,49,55. Chap.3: 39,41,54. N _{must} = 10 | |
| | 2nd | ENERGY CONSERVATION & W = dK + dU | 8.1 - 8.5 8.7 - 8.8 | | CD: Potential Energy & AQ | Chap.8: 1,3,9,19,21,23,25,27,43,45,51 55,69,71,80. N _{must} = 12 | |
| 7 | 1st | Momentum: Impulse & collisions | 9.4 -9.11 | 7 | INELASTIC MOMENTUM | Chap.9: 19,21,25,29,40,47,49,51,56. | |
| | 2nd | Rotational motion, Mom. Inertia | 10.1 - 10.7 | | CD & AQ | Chap.10: 1,9,11,13,15,19,27,28,33,35,37,39 | |
| 8 | 1st | Torque = Force x lever arm | 10.8 -10.10 | 8 | MOMENT OF INERTIA | Chap.10: 45,46,47,50,51,53,59,61,60,66, | |
| | | Lin. & Rotation combo, Ang. Mom. | 11.1 -11.07 | | | Chap.10: 66,88,89. Chap.11: 3,7,12,23,25. | |
| | 2nd | Newton's second law of rotation. Ang. Momentum con. ,gyroscopes | 11.8 11.12 3.8(cross p) | | CD & AQ | Chap.11: 38,46,49,62,70. Chap.3: 33,35,37,44,63. | |
| 9 | 1st | Mid. Term Review: Comprehensive 10 page Exam. | | | | X HW pts for >80%(N[max]=75)=60 | |
| | 2nd | Mid. Term Test(10 pg.): HW DUE. | | | TEST continued | HW Portfolio due: N _{must} =60 | |
| Test Focus: (1) Dot products & angle between vectors(V), +/- V, mag. & dir. (2) Projectiles; (3) 2nd law: one Obj. & Mult. Fs; (4) Newton's 2nd: Mult. Obj. & Mult. Fs. (5) Centripetal F: Mult. Fs. (6) Lin. Work-Energy Theorem: w/wo friction. (6b) Power (7) Lin. & Ang. Work-Energy Theorem: w/wo friction; (8) Angular Newton's 2nd: 1 object; (9) Newt. 2nd Combo: Lin. & Ang. a. | | | | | | | |
| 10 | 1st | Static & Rotational Equilibrium | 12.1 - 12.6 | 9 | Rotational Equilibrium | Chap 12: 19,20,21,23,24,26,28,30,33. | |
| | 2nd | Stress & Strain & Modulus | 12.7 | | CD & AQ | Chap.12: 43,65,72,76. N _{must} = 10 | |
| 11 | 1st | Gravitation | 13.1 - 13.5 | | CD & AQ | Chap. 13: 3,5,9,17,19,21,33,43,45, | |
| | 2nd | Kepler's Laws | 13.6 - 13.8 | | Gyroscopic Demo & AQ | Chap.13: 53,61,63. N _{must} = 10 | |
| 12 | 1st | Fluids: d, P, Archimedes', Bernoulli. | 14.1 - 14.10 | 10 | BUAYANCY | Chap.14: 3,5,9,12,15,26,28,29,31,33,45,55, | |
| | 2nd | Oscillations: SHM, Spring/mass, Simple & Physical Pendulums, | 15.1 - 15.7 | 11 | Physical Pendulums | 62,65. Chap.: 15: 6,10,12,29,31,40,41, 47,89,91. Chap.14 & 15 N _{must} = 15 | |
| 13 | 1st | Traveling Waves: wave vel., Doppler. | 16 | 12 | STANDING WAVES | Chap.16: 1,3,5,7,15,17,19,26,29,31,41,43,47,58. | |
| | 2nd | Superposition & Standing Waves | 17.1 - 17.9 | | CD & AQ | Chap.: 17: 1,3,5,7,11,21,25,55,61. N _{must} = 18 | |
| 14 | 1st | Temp. (C,F,K) & Ideal Gas (PV=nRT) | 18.1 - 18.7 | 13 | IDEAL GAS: PV=NKT | Chap.18: 4,5,8,9,10,11,23,27,28,31,35, | |
| | 2nd | Sp. & Latent HEAT, 1st thermo Law. | 18.8 - 18.12 | | CD & AQ | 37,39,40. N _{must} = 10 | |
| 15 | 1st | Review for Comprehensive Final Exam(10 pages) | | | AQ | | |
| | 2nd | Review for Comprehensive Final Exam | | | AQ | | |
| # | 1st | FINAL EXAM(10 pg.) & Last HW due. | | | TEST continued | X HW pts for (>80% of 81 max = 65) & Tidy. | |
| Conceptual focus on Final: (1) Dot & Cross products, add & Subtract Vectors, mag. & dir. (2) Projectiles: V&H (3) Newton's 2nd: Mult. Obj. & Mult. Fs. (4) Centripetal F: Mult. Fs. (5) Static & Rotational Equilibrium (6) Linear Work-Energy Theorem: w/wo friction. (7) Angular & Linear (6). (8) Newton's 2nd Combo: Linear & Angular a. (9) Heat lost=Heat gained. | | | | | | | |