Content Wyocast Videos Spring 2019 Phys 1210

1/28 Old syllabus; lecture starts at 52’: models in physics (see office hour 2 for filling in the invisible parts)

1/30 models, self-diagnostic test trig, vectors,

K1 2/1 lecture starts at 10:30’, ch.2

one-dim motion, ch.2, graphical derivative: instantaneous vs. average velocity, acceleration; example: running track problem 1 and 2, give time for 2 so students can check their work

K2 2/4 sound okay, lecture starts at 23’, ch.2

Master Eqn 1, const. Acceleration, dimensional analysis, example derivative

(missing on board: graphical derivation of eqn 1D)

concept: divide and conquer

K3 2/6 sound okay, ch.2

predicting x,v, and a time graphs – interactive applet

example: divide and conquer problem : water bomb

example: cliff problem (not entirely visible)

K4 2/8 sound okay, ch.2

example: continue cliff problem – combine divide and conquer with finding the hidden equation

example: falling flowerpot problem – divide and conquer with new objective

K5 2/11 sound okay

example: continue flowerpot problem, ch.2

2-dim and 3-dim motion, applying vectors, ch.3

spring gun demo (not in view)

projectile motion

K6 2/13 sound okay

eqn for projectile motion, ch.3

example: cliff problem 2-dim

K7/8 2/15 sound okay

example: more projectile motion: fire and hose, ch.3

video: cart on incline shoots cannon ball

relative motion, ch.3

D1 2/18 sound okay

student list of forces they know, mass

ch.4 Newton’s Laws, linear equations

D2 2/20 sound okay but a bit choppy

example: statics problem: two suspended balls on a string

example: Atwood Machine

D3 2/22 sound okay

N3 law, horse and cart conceptual problem,

example: review and finish Atwood Machine

example: double incline problem (too small and part out of view, work in office hour)

D4 2/25 sound okay, lecture begins at 24’ (before: exam prep, “play” exam), sound lost ~ 30-33’

example: modified Atwood Machine w/o friction

D5 2/27 example: modified Atwood Machine w/o friction, continued

friction

example: modified Atwood Machine w/ friction

example: hammer and nail; using N equation backwards, add-on kinematics

C1 3/1 sound okay, lecture starts at 13’, sound choppy later on

example: sliding chain problem (changing acceleration)

Conservation Laws