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