**Physics G**

Chapter 7 Syllabus

Gravity and Circular Motion

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| B/A | | Class | Due | | If you miss this class: |
| 1  Apr  18/20 | | -A Veritable Quandary  -Centripetal acceleration vs Linear  -Centripetal Force  -RPMs, RPS and velocity |  | | **Read:**  7.2 (starting at page 257), 7.3  **Watch:** Videos A, B |
| 2  Apr  21/24 | | -Centripetal vs. Centrifugal  -Motion in a vertical circle (g force)  -Rollercoaster loops  -Going all the way around on a swing set – Mythbusters  -Fundamental forces in Physics | **Check:** 7.1:1, 2, 4, 5, 10, 13, 14  **Turn In:** 7.1 | | **Read:** p. 260-2  **Watch:** Videos C |
| 3  Apr  25/26 | | -Universal Gravitation  -Work on 7.2:1-6 (gravity) | **Check:** 7.2:1, 2, 6, 7, 9, 10  (vertical circle) | | **Read:** p. 263-5  **Watch:** Videos D, E |
| 4  Apr  27/28 | | -Work On Orbit Problems 7.3:1-10 | **Check:** 7.2:1-6 (gravity)  **Turn In:** 7.2  **Video Flip: F –Orbit (≈22 min)** | | **Watch:** Videos F |
| 5  skip | | -Banked Corners  -Gravity in Space  -Kepler's Laws  -Models of orbital mechanics  -Escape Velocity | **Check:** 7.3:1-6 | | **Read:** p. 266-7  **Watch:** Videos G, H |
| 6  May  1/2 | | -Orbit lab intro  -Hand out FA 7.1, 7.2, 7.3  -Time to work on problems and lab | **Check:** 7.3:1-10 | | **Read:** p. 266-7  **Read:** p. 268-9 |
| 7  skip | | -Time For FAs and Lab | **Check:** 7.2:8,9,11 (vertical circle) 8,9,10 (gravity) | |  |
| 8  May  3/4 | | Summative Assessments:  7.1 - Circular Motion  7.2 - Gravity and Vertical Circle  7.3 - Orbit | **Turn In:** 7.3  **Turn In:** Orbit Lab  **Turn in:** FA 7.1, 7.2, 7.3 | |  |
| May  8-12 | | Oaks Park Week! |  | |  |
| Assignments:   * 1 Lab:   + *Orbit lab* – (Simulation on computer) /25 pts * 3 Formative/Summative Assessments:   + 7.1 - Circular Motion   + 7.2 - Gravity and Vertical Circle   + 7.3 - Orbit * 3 Formative Homework sets   + P7.1: 1, 2, 4, 5, 10, 13, 14 /14 pts   + P7.2: VC: 1, 2, 6, 7, 9, 10, Gr: 1-6 /24 pts   + P7.3: 1-10 /20 pts | | | Handouts: | |