**Physics G**

Chapter 7 Syllabus

Gravity and Circular Motion

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Block | | Class | Due | |
| 1  Apr 3/6 | | -A Veritable Quandary  -Centripetal acceleration vs Linear  -Centripetal Force  -RPMs, RPS and velocity | **Read:**  7.2 (starting at page 257), 7.3 | |
| 2  Apr 7/8 | | -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 | **Practice:** CM:1-10  **Read:** p. 260-2 | |
| 3  Apr 9/13 | | -Universal Gravitation  -Work on Gravity and Orbit 5-9 | **Practice:** CM:11-15  **Practice:** G&O: 1-4  **Read:** p. 263-5 | |
| 4  Apr **14**/15 | | -Work On Orbit Problems (G&O: 10-18) | **Video Flip: F –Orbit (≈22 min)**  **Practice:** G&O: 5-9 | |
| 5  Apr 16/17 | | -Kepler's Laws  -Models of orbital mechanics  -Escape Velocity  -Banked Corners  -Gravity in Space | **Practice:** G&O: 10-18  **Read:** p. 266-7 | |
| 6  Apr 20/21 | | -Orbit lab intro  -Hand out FA 7.1, 7.2, 7.3  -Time to work on problems and lab | **Practice:** G&O: 19-23 | |
| 7  Apr 22/23 | | -Time For FAs and Lab | **Read:** p. 268-9  **Practice:** P7G:1,2(11.8 m/s) + P7H:2(84.6 kg),4(35 m/s) | |
| 8  Apr 24/27 | | Summative Assessments:  7.1 - Circular Motion  7.2 - Gravity and Vertical Circle  7.3 - Orbit | **Practice:** PP 25, 39, 43, 47[[1]](#footnote-1)  **Turn In:** Orbit Lab  **Turn in:** FA 7.1, 7.2, 7.3 | |
| Apr 28 | | ACTACTACTACTACTACTACTACTAC |  | |
| 9  Apr 29/30 | | Vaves! Jah!!!! |  | |
|  | | **Oaks Park Week May 4-8** |  | |
| 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 | | | Handouts:  This Syllabus  Worksheet-CircularMotion  Worksheet-GravityAndOrbit  Noteguide-Orbit  Lab-Orbit  FA7.1  FA7.2  FA7.3 | |

1. These are the practice problems from the end of the chapter. PP 25 is on page 270. Answers are in the back of the book. [↑](#footnote-ref-1)