**Physics G**

Chapter 7 Syllabus

Gravity and Circular Motion

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| Block | | Class | Due | |
| 1  Mar 18/29 | | -A Veritable Quandary  -Centripetal acceleration vs Linear  -Centripetal Force  -RPMs, RPS and velocity | **Read:**  7.2 (starting at page 257), 7.3 | |
| 2  Mar 30/31 | | -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:** 7.1:1-8, 9-14  **Read:** p. 260-2 | |
| 3  Apr 1/4 | | -Universal Gravitation  -Work on 7.2:1-6 (gravity) | **Check #1[[1]](#footnote-1):** 7.2:1-6 (vertical circle)  **Read:** p. 263-5 | |
| 4  Apr 5/6 | | -Work On Orbit Problems 7.3:1-10 | **Check #2:** 7.2:1-6 (gravity)  **Video Flip: F –Orbit (≈22 min)** | |
| 5  Apr 7/8 | | -Banked Corners  -Gravity in Space  -Kepler's Laws  -Models of orbital mechanics  -Escape Velocity | **Check #3:** 7.3:1-6  **Read:** p. 266-7 | |
| 6  Apr 11/12 | | -Orbit lab intro  -Hand out FA 7.1, 7.2, 7.3  -Time to work on problems and lab | **Check #4:** 7.3:7-10  **Practice:** G&O: 19-23 | |
| 7  Apr 13/14 | | -Time For FAs and Lab | **Check #5:** 7.2:8,9,11 (vertical circle)  8,9,10 (gravity)  **Read:** p. 268-9 | |
| 8  Apr 18/20 | | Summative Assessments:  7.1 - Circular Motion  7.2 - Gravity and Vertical Circle  7.3 - Orbit | **Turn In:** Orbit Lab  **Turn in:** FA 7.1, 7.2, 7.3  **Turn in:** Checks 1-5 (above) | |
| Apr 19 | | ACTACTACTACTACTACTACTACTA | (ACT day) | |
| 9  Apr 21/22 | | Vaves! Jah!!!! |  | |
| 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-CircularMotion7.1  Worksheet-VerticalCircleandGravity7.2  Worksheet-Orbit7.3  Noteguide-Orbit  Lab-Orbit  FA7.1  FA7.2  FA7.3 | |

1. Clearly label the checks - Check #1, Check #2, etc Demarcate the problems with a horizontal line in your homework. Have these out at the beginning of class, and I will stamp them. Put them on the board for EC [↑](#footnote-ref-1)