IB Physics

Chapter 5 Syllabus

Gravity and Circular Motion

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| Block | In Class  | Due  | If you miss this class: |
| 1Dec 1/4 | -Why it is important to consider the weight of a barrel of bricks-Centripetal acceleration-Centripetal Force-RPMs, RPS and velocity-Centripetal vs. Centrifugal-Intro to Vertical Circle | **Turn in:** Force Lab (Des, CE?) | **Read:** 5.1-3**Watch:** Videos A, B, C |
| 2Dec 5/6 | -Work on Motion in a Vertical Circle problems -**Fun**damental forces in Physics-Universal Gravitation | **Video Flip:** Vertical Circle (C)**Chapter 5 Problems:** 1, 6(3.6 m/s/s) | **Read:** 5.5**Watch:** Videos C, D |
| 3Dec 7/8 | -Work on Orbit Problems in class -Models of orbital mechanics-Escape Velocity | **Video Flip:** Orbit Problems (F)**Chapter 5 Problems:** 9, 16(1.7 m/s, 3.3 m/s) | **Read:** 5.6-8,10**Watch:** Videos F |
| 4Dec 11/12 | -Orbit Lab -Hand out FA 5.1, 5.2, 5.3 | **Video Flip:** Kepler’s Laws (G)**Video Flip:** Banked Corners (H)**Chapter 5 Problems:** 43, 58(160 years)**Turn in:** Vertical Circle Problems | **Read:** 5.9**Watch:** Videos G, H |
| Dec 13/14 | **So let's add a day - and do the SA 5.2 and 5.3 on this day plus something??**(We will do the ch 5 and 6 assessments together later) | **Turn in:** Orbit Problems**Turn In:** Orbit Lab**Turn in: Ch. 5:** 1, 6, 9, 16, 43, 58 |  |

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| Assignments* 1 Lab:
	+ Orbit Lab – Computer simulation of orbit – in class
* 3 Formative/2 Summative Assessments:
	+ 5.1 – Centripetal Acceleration\*
	+ 5.2 - Vertical Circle
	+ 5.3 - Orbit and Gravity
* 3 Formative assignments:
	+ Ch. 5 problems: 1, 6, 9, 16, 43, 58 (12 pts)
	+ Vertical Circle Problems (12 pts)
	+ Orbit Problems (12 pts)

\*Formative only | Handouts:Syllabus-GravityAndCircularMotion2016FA5.1FA5.2FA5.3Noteguide-OrbitWorksheet-OrbitNoteguide-VerticalCircleWorksheet-VerticalCircleProblemsWorksheet-VerticalCircle5.2Lab-Orbit (class copies) |