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 | -Plates and Marbles-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)**Finish Group Work 5.1** | **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 | -Space Station Project Introduction-Hand out FA 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 | -Space Station Project Worktime | **Turn in:** Orbit Problems**Turn in: Ch. 5:** 1, 6, 9, 16, 43, 58 |  |
| Dec15/Jan 2 | -Intro to Energy | **Turn in:** Space Station Project |  |

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| Assignments* 1 Project/Assessment:
	+ Space Station Design Project
* 2 Formative Assessments:
	+ 5.2 - Vertical Circle
	+ 5.3 - Orbit and Gravity
* 4 Formative assignments:
	+ Ch. 5 problems: 1, 6, 9, 16, 43, 58 (12 pts)
	+ Groupwork 5.1
	+ Vertical Circle Problems (12 pts)
	+ Orbit Problems (12 pts)
 | Handouts:Syllabus-GravityAndCircularMotion2016Group Work 5.1FA5.2FA5.3Noteguide-OrbitWorksheet-OrbitNoteguide-VerticalCircleWorksheet-VerticalCircleProblemsWorksheet-VerticalCircle5.2Space Station Design Project |