**Physics G**

Two-Dimensional Motion and Vectors Syllabus

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| Block | In Class: | Due on this class: | If you miss this class: | |
| 1  Nov  2/3 | -Introduction to vectors "Where am I?"  -Rules of vectors  -Finding vector components |  | **Read:** 3.1[[1]](#footnote-1)  **Watch:** Ch 3, Videos B or  **Read:** 3.2 | |
| 2  Nov  4/7 | -Making angle magnitude vectors  -Adding vector component vectors  -Adding two angle magnitude vectors | **Check:** VS: 1-6 | **Watch:** Ch 3, Videos C, D  **Watch:** Videos for FA 3.1 or  **Read:** 3.2 | |
| 3  Nov  8/9 | -Work on VS 15, 16  -Hand out FA 3.1  -Principles of projectile motion  -Simple Cliff Problem solved  -Explain classroom flip/noteguide G | **Check:** VS: 7-14 | **Watch:** Ch. 3, Videos F, G  **Read:** 3.3 | |
| 4  Nov  14/15 | **-Summative Assessment:**  **-SA 3.1 Vector Addition**  -Work in groups on Cliff Quizlette | **Video Flip: Cliff Problem (G)[[2]](#footnote-2)**  **Turn in Formative:** VS: 1-16  **Turn in:** FA 3.1 | **Watch:** Ch. 3, Videos F, G  **Read:** 3.3 | |
| 5  Nov  16/17 | -Poser from Interactive Physics  -Explain classroom flip/noteguide H  -Finish Cliff Quizlette  -Work on 3.2 practice | **Turn in:** Cliff Quizlette | **Watch:** Ch. 3, Videos H | |
| 6  Nov  18/21 | -Arc Trajectories Example  -Deriving the Range Equation  -Work in groups on Arc Quizlette  -Work on 3.3 practice | **Video Flip: Arc Problem (H) and Range Equation (I)** | **Watch:** Ch. 3, Videos H  **Watch:** Ch. 3, Video I | |
| 7  Nov  22/23 | -Projectile motion demos  -Solving boat crossing river problems  -Work 3.4 practice | **Turn in:** Arc Quizlette | **Watch:** Ch. 3, Video J  **Read:** 3.4 | |
| 8  Nov  29/30 | -Introduction of *Vernier Trajectories* lab  -Demonstration of *Trajectory of a Marble* lab  -Hand out FA 3.2, 3.3, 3.4  -Work time for labs | **Video Flip: Trajectory of a Marble lab**  **Check:** Practice 3.2 #1, 2 | **Watch:** Ch. 3, Video J  **Watch:** Marble Lab | |
| 9  Dec  1/2 | -Posers from Interactive Physics  -In class time to work on labs and FAs | **Check:** Practice 3.2 #3, 4  **Turn in:** Practice 3.2 #1-4 | You might need to come in and make up the lab before or after school | |
| 10  Dec  5/6 | -Posers from Interactive Physics  -In class time to work on labs and FAs | **Check:** Practice 3.3 #1, 2, 3 6a-c, 7a-c  **Turn in:** Practice 3.3 #1, 2, 3 6a-c, 7a-c | You might need to come in and make up the lab before or after school | |
| 11  Dec  7/8 | -Posers from Interactive Physics  -In class time to work on labs and FAs | **Check:** Practice 3.4 #1-4  **Turn in:** Practice 3.4 #1-4 | You might need to come in and make up the lab before or after school | |
| 12  Dec  9/12 | **-Summative Assessments:**  **-SA 3.2 Cliff Problems**  **-SA 3.3 Arc Problems**  **-SA 3.4 Boat Crossing River** | **Turn in:** *Vernier Trajectories* lab  **Turn in:** *Trajectory of a Marble* lab  **Turn in:** FA 3.2, 3.3, 3.4 | **You will need to come in and make up the assessments on a makeup day** | |
| Dec  13/14 | Newton's Laws!!!!!! |  |  | |
| Assignments:   * 3 Labs:   + *Where am I?* lab – Drawing in class on graph paper /10 pts   + *Vernier Trajectories* lab – Computer simulation. /30 pts   + *Trajectory of a Marble* lab – In class – hit a target with a marble. /20 pts * 2 Quizlettes – group work on problems (20 formative points each) * Formative: VS 1-16 /10 pts * Formative : Practice 3.2 1-4 (20 pts) * Formative: Practice 3.3 1, 2, 3 6a-c, 7a-c (25 pts) * Formative: Practice 3.4 1-4 (20 pts) * 4 Formative/ Summative assessments:   + 3.1 - Adding Two Vectors   + 3.2 - Cliff Problems   + 3.3 - Arc Problems   + 3.4 - Boat Crossing River | | Handouts:  Syllabus-2DMotionAndVectors  Worksheet-Vector Sheet  Worksheet-2DimensionalMotion  Lab-VernierTrajectories  Lab-TrajectoryOfAMarble  Noteguide-Cliff  Noteguide-Arc  Worksheet-SonOf2D  Quizlette-Cliff  Quizlette-Arc  FA 3.1  FA 3.2  FA 3.3  FA 3.4 |  |

1. Chapter 3 starts on page 84 [↑](#footnote-ref-1)
2. Video Flip means that you must watch the video on line. I will not be teaching the material in class, the only way you will learn it is to view the video. If you come to class having not watched the video, you will have to watch it in class. It is much better to work on the quizlette in class. [↑](#footnote-ref-2)