**Physics G**

Two-Dimensional Motion and Vectors Syllabus

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| Block | Class  | Due on this class |
| 1Oct 21/24  | •Tests back•Judging of lateral accelerometers•Introduction to vectors "Where am I?"•Rules of vectors•Assign *Vectors Sheet*•Finding vector components L/D + WB | **Turn in:** *Lateral Accelerometer* lab signed by your parents**Bring:** Your lateral accelerometer |
| 2Oct 25/26 | •Making angle magnitude vectors L/D + WB•Adding vector component vectors L/D + WB•Adding two angle magnitude vectors L/D + WB  | **Read:** 3.1-2[[1]](#footnote-2)**Check:** VS: 1-6 |
| Oct 31/Nov 1 | **Demonstrations involving Thermodynamics and Optics** |  |
| 3Nov 2/3 | •**PreQuiz** on Vectors•Principles of projectile motion•Simple Cliff Problem solved | **Check:** VS: 7-16 |
| 4Nov 4/7 | •Cliff problem Quizlette•Assign *Two Dimensional Motion* •**Skill Set on Vectors (individual)** | **Check:** P3A:1,3 P3B:3,7 P3C: 1**Read:** 3.3 |
| 5Nov 8/9 | •Arc Trajectories•Work in Quiz groups on Arc Quizlette | **Check:** 2DM: 1,2,3**Turn in:** *Vectors Sheet +* P3A:1,3 P3B:3,7 P3C: 1[[2]](#footnote-3) |
| 6Nov 14/15 | •Vernier #3 quandary – how far will it land?•Deriving the Range Equation•Finish Arc and Cliff Quizlettes + Varsity questions•Projectile motion demos | **Check:** 2DM: 4,5,6 |
| 7Nov 16/17 | •Arc off of a cliff quandary•Solving boat crossing river problems•Work in Quiz groups | **Check:** 2DM: 10-14**Read:** 3.4  |
| 8Nov 18/28 | •Vernier #1 quandary•Introduction of *Vernier Trajectories* lab•Introduction of *Trajectory of a Marble* lab•Work time for labs/Questions from 2-D Motion | **Check:** 2DM: 7,8,9 |
| 9Nov 29/30 | •Posers from Interactive Physics•**Quiz on cliff and boat problems (group)**•In class time to work on *Vernier Trajectories* lab*Trajectory of a Marble* lab•Assign *Son of 2D* | **Turn in:** *Two Dimensional Motion*  **Check:** SO2DM: 1,3 |
| 10Dec 1/2 |  •In class time to work on*Vernier Trajectories* lab*Trajectory of a Marble* lab | **Check:** SO2DM: 5,7 |
| 11Dec 5/6 | •**Prequiz on Projectile Motion**•Work on stuff•Questions from Son of 2D  | **Check:** SO2DM: 2,4,6 |
| 12Dec 7/8 | •**Skill Set on Projectile Motion**•Mock Test•Questions from Son of 2D | **Check:** P3D: 1,3 P3E: 1,3,5  |
| 13Dec 9/12 | **Test** on Two dimensional motion | **Turn in:** *Son of 2D +* P3D: 1,3 P3E: 1,3,5[[3]](#footnote-4)**Turn in:** *Vernier Trajectories* lab**Turn in:** *Trajectory of a Marble* lab |

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| Assignments:* *Vectors Sheet* (16) *+* P3A:1,3 P3B:3,7 P3C: 1 + 3 stamps /48 pts
* *Two Dimensional Motion* (14)+ 4 stamps /36 pts
* *Son of 2D* (7) + P3D: 1,3 P3E: 1,3,5 + 4 stamps /32 pts
* 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
* 3 Quizzes/1 Skill Set /10 pts ea
	+ Vector quiz/Skill Set (like a test)
	+ Cliff problems quiz
	+ Arc Trajectories quiz
 | Handouts: Syllabus-2DMotionAndVectors Worksheet-Vector Sheet PreQuiz-03.1 PreQuiz-03.2 Worksheet-2DimensionalMotion Lab-VernierTrajectories Lab-TrajectoryOfAMarble Worksheet-SonOf2D Quizlette-Cliff Quizlette-Arc Misc-MockTest |

1. Chapter 3 starts on page 84 [↑](#footnote-ref-2)
2. Staple these book problems to the vector sheet. [↑](#footnote-ref-3)
3. Staple these book problems to the Son of 2D sheet [↑](#footnote-ref-4)