Physics

Linear Kinematics Unit Syllabus

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|  | Block | Class  | Due on this class (Suggested Practice) |
| **M** | **1****Sept** **14** | -Introductions-What is Physics?-Index Card survey | Need: Your smiling face |
| **T** | **2****Sept** **15** | -Course basics and Canvas-Course Policy-Speed Trap lab description | **Index Card Survey** |
| **Th** | **3****Sept****17** | -Tour of the Website assignment-Data collection assignment for No reason to Speed Lab (NRTS)**-Math pretest** | **VF: Doing Video Flips (VF)****VF: Submitting Work on Canvas**Need: Paper and pencil and a calculator |
| **F** | **4****Sept** **18** | **DI**-Speed**DI**-Review Dimensional analysis (DA) | **VF: 2A1 - Solving Speed Problems****VF: 2A2 - Unit Conversions****VF: Tour of the Website** |
| **M** | **5**Sept **21** | -DI – How to do Formative Assessments (FAs)-NRTS and Homework reminder**GW**-Work in groups on Speed and DA Quizlette and FA 2.1 | **Turn in:** Speed Trap Lab**Turn in:** Speed and DA Quizlette**Turn in:** Course Policy Quiz |
| **T** | **6****Sept** **22** | -Group Quiz on Speed and DA (2.1)**SA 2.1 Speed (Due by the end of the day Wednesday)****GW** -Work on No Reason To Speed Lab | **Turn in:** FA 2.1Suggested Practice 2.1 #1-8) |
| **Th** | **7****Sept** **24** | **DI** - Vector Velocity**DI** - Complex Acceleration**GW**-Work on Acceleration Quizlette | **VF: 2C - Simple Acceleration**Suggested Practice 2.1 #9-16 |
| **F** | **8****Sept** **25** | **GW**-Finish Acceleration Quizlette**GW**-Work on No Reason To Speed Lab | **Turn in:** Acceleration Quizlette **Turn in:** No reason to Speed lab |
| **M** | **9****Sept****28** | -Group Quiz on Acceleration (2.2)**SA 2.2 Acceleration (Due by the end of the day Tuesday)** | **Turn in:** FA 2.2Suggested Practice 2.2 #1-6 |
| **T** | **10****Sept****29** | **DI**-Tangent lines**DI**-Qualitative Graphs**GW**-Graphs of Motion Quiz | **VF: 2G – Position vs. Time Graphs****VF: 2H - Velocity graphs**Suggested Practice 2.2 #17-22 |
| **Th** | **11****Oct****1** | -Moving Plots Lab demo**GW**-Labs |  |
| **F** | **12****Oct****2** | **Lab Help** | **Turn in:** Moving plots lab |
| **M** | **13****Oct****5** | **ILD** – Graphs of Motion | **VF: 2E Solving Kinematics** |
| **T** | **14****Oct****6** | **ILD** – Graphs of Motion | **Turn in: Graphs of Motion ILDs** |
| **Th** | **15****Oct****8** | **DI**-Example Problems**GW**-How Far Quizlette | **VF: 2F Free Fall Problems****Turn in:** How Far QuizletteSuggested Practice 2.3 #1-5, 21, 22 |
| **F** | **16****Oct****9** | **GW-**How Far Group Quiz**GW**-Work on How Far Quizlette**GW**-FA 2.3 | Suggested Practice 2.3 #6-10, 23, 24 |
| **M** | **17****Oct****12** | **GW**-Kinematics Group Quiz**SA 2.3 Kinematics (Due by the end of the day Tuesday)** |  |
| **T** | **18****Oct****13** | **DI**-Free Fall Demos/Solving**GW**-Work on Free Fall Quizlette |  |
| **Th** | **19****Oct****15** | **GW**-Work on Free Fall Quizlette **GW**-FA 2.4 | **Turn in:** Free Fall QuizletteSuggested Practice 2.4 #1, 2, 3 |
| **F** | **20****Oct****16** | **GW**-Free Fall Group Quiz**SA 2.4 Free Fall (Due by the end of the day Monday)** | Suggested Practice 2.4 #4, 5, 6 |

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| Assignments* 3 Labs:
	+ Speed Trap Lab – Timing cars, No handout /20 pts (indiv)
	+ No Reason to Speed Lab – Spreadsheet and questions /40 pts (indiv)
	+ Moving Plots Lab – Video Analysis of a glider accelerating /40 pts (pairs)
* 4 Formative Quizlettes (In class group work) (10 pts ea)
	+ Quizlette 2.1 - Speed
	+ Quizlette 2.2 - Acceleration
	+ Quizlette 2.3 - How Far
	+ Quizlette 2.4 - Free Fall
* 4 Formative/Summative Assessments: (10 pts ea)
	+ 2.1 Speed
	+ 2.2 Acceleration
	+ 2.3 Basic Kinematics
	+ 2.4 Free Fall Kinematics
 | Handouts  |