

# Physics Syllabus for 9/8/2020 - 9/18/2020 (Unit 0-A - Course introductions and expectations, and graphing by hand and with a graphing program)

## Unit standards:

**Lab Skills and Scientific Reasoning 4** - I can identify patterns in data and represent the data mathematically and graphically, along with providing physical meaning to the slope, y-intercept, and area where appropriate. When making a graph, I can place variables correctly, label axes, and follow other graphing norms to show a possible relationship between two variables.

**Lab Skills and Scientific Reasoning 5** - I can use a graphing program such as Graphical Analysis, Logger Pro, or Excel to correctly plot data. I can choose a correct graphical relationship and write the mathematical model for the relationship, if any, that's shown. If necessary I can linearize a graph to better show the relationship.

- Virtual assignments (M, T or Th, F) → Due dates noted in syllabus below
- In person assignments → Due dates may vary based on cohort
- Wednesday virtual assignments → Should be completed on Wednesday if possible
- Wednesday office hour from 2-3 PM via Google Meet

**All assignments with digital documents will also be posted in Google Classroom**

Daily schedule	Cohort A	Cohort B
Monday, 9/7	<p><b>No school, Labor Day holiday</b>            Due by 11:59 PM today:</p> <ol style="list-style-type: none"> <li>1) Exit ticket from my welcome video</li> <li>2) Student Questionnaire</li> <li>3) Your brief Flipgrid video</li> <li>4) * Good Physics, Bad Physics pop culture video</li> </ol> <p>Due by class time tomorrow</p> <ol style="list-style-type: none"> <li>5) The two analysis questions from the puzzle activity</li> </ol>	<p><b>No school, Labor Day holiday</b>            Due by 11:59 PM today:</p> <ol style="list-style-type: none"> <li>1) Exit ticket from my welcome video</li> <li>2) Student Questionnaire</li> <li>3) Your brief Flipgrid video</li> <li>4) * Good Physics, Bad Physics pop culture video</li> </ol> <p>Due by class time Thursday</p> <ol style="list-style-type: none"> <li>5) The two analysis questions from the puzzle activity</li> </ol>
Tuesday, 9/8	<p><b>In person</b> - Jigsaw breakdown and discussion.  <b>Complete the final analysis of this by Thursday evening, 9/10</b></p> <p>Standards Based Grading- discussion, and Q&amp;A</p> <p>Academic Integrity introduction, sample video, and assign groups for Thursday's virtual work</p>	<p><b>Virtual</b> - Academic Integrity video introduction and sample video</p> <p>Students (in a group assigned from your cohort) evaluate a scenario based on academic integrity. <b>Each student should post responses (and comment on responses already made) by Sunday, 9/13 at 11:59 PM in the shared Google Doc.</b></p>
Wednesday, 9/9	<p><b>Virtual</b> - Graphing pre-assessment (not for a grade): Please submit as a picture or a Jamboard by today at 2:59 PM</p> <p>Optional - View a number of your classmates' Flipgrid introduction videos and comment on at least two of them (kind words!) in a thread on Google Stream today.</p>	<p><b>Virtual</b> - Graphing pre-assessment (not for a grade): Please submit as a picture or a Jamboard by today at 2:59 PM</p> <p>Optional - View a number of your classmates' Flipgrid introduction videos and comment on at least two of them (kind words!) in a thread on Google Stream today.</p>
Thursday, 9/10	<p><b>Virtual</b> - Students (in a group assigned from your cohort) evaluate a scenario based on academic integrity. <b>Each student should post responses (and comment on responses already made) in the shared Google Doc. This should be done by Sunday, 9/13 at 11:59 PM so we can discuss this</b></p>	<p><b>In person</b> - Jigsaw puzzle breakdown and discussion.  <b>Complete the final analysis of this by Thursday evening, 9/10</b></p> <p>Standards Based Grading- discussion, and Q&amp;A</p>

	in class on Monday.	Academic Integrity - assign groups for Friday's work (if time)
<b>Friday, 9/11</b>	<b>Virtual</b> - Complete the Physics Mindset activity by answering questions in the document and watching the video linked in the document. <b>We'll discuss this Monday in class, so it will be due by Sunday, 9/13 at 11:59 PM.</b>	<b>In person</b> - Students continue to evaluate scenario based on academic integrity. Each student posts responses (and comment on responses already made) in the shared Google Doc.  If time - work on the Physics Mindset activity by answering questions in the document and watching the video linked in the document. <b>We'll discuss this in class this week, and I want to look at your responses ahead of time, so it will be due by Sunday, 9/13 at 11:59 PM.</b>  Phone tree/GroupMe sign up

Daily schedule	Cohort A	Cohort B
<b>Monday, 9/14</b>	<b>In person</b> - Discuss answers to Mindset activity that was due yesterday  Academic Integrity discussion from document you filled out last week  Phone tree/GroupMe sign up	<b>Virtual</b> - Graphing things to do (video lecture and example)
<b>Tuesday, 9/15</b>	<b>In person</b> - Rebound lab and video data collection (along with discussion of how much data to collect) and hand out composition notebooks	<b>Virtual</b> - Video lecture on Error and Uncertainty (both uncertainty of measurement and uncertainty of event) plus activity at home
<b>Wednesday, 9/16</b>	<b>Virtual</b> - Graphing things to do (video lecture and example)  How to make a graph using Graphical Analysis (tutorial) and discussion of mathematical models  Make at least two graphs from practice data sets for Graphical Analysis, take a screenshot of each, and share that with your instructor <b>by the end of the day Wednesday, 9/16</b>	<b>Virtual</b> - How to make a graph using Graphical Analysis (tutorial) and discussion of mathematical models  Make at least two graphs from practice data sets for Graphical Analysis, take a screenshot of each, and share that with your instructor <b>by the end of the day Wednesday, 9/16</b>
<b>Thursday, 9/17</b>	<b>Virtual</b> - Per group, complete a graph for your lab of bouncing ball objects and make a complete whiteboard of your results as a Jam on Jamboard by Sunday 9/20 at 11:59 PM, including: <ol style="list-style-type: none"> <li>1) Graph screenshot from graphical analysis</li> <li>2) Mathematical model</li> <li>3) Written statement about the relationship</li> <li>4) Prediction for how high your ball would</li> </ol>	<b>In person</b> - Discuss answers to Mindset activity that was due last Sunday  Academic Integrity discussion from document you filled by last Sunday

	bounce if dropped from 2 meters	
<b>Friday, 9/18</b>	<b>Virtual</b> - Video lecture on Error and Uncertainty (both uncertainty of measurement and uncertainty of event) plus activity at home	<b>In person</b> - Rebound lab and video data collection (along with discussion of how much data to collect) and hand out composition notebooks

**A look ahead:**

Why make a straight line from non-linear data?

<i>Monday, 9/21</i>	<i><b>In person</b> - Process and share lab results and discuss. Is this the same model?  Plus something with Good graph, bad graph?</i>	<i><b>Virtual</b> - Per group, complete a graph for your lab of bouncing ball objects and make a complete whiteboard of your results as a Jam on Jamboard by Wednesday at 11:59 PM, including: 1) Graph screenshot from graphical analysis 2) Mathematical model 3) Written statement about the relationship 4) Prediction for how high your ball would bounce if dropped from 2 meters</i>
<i>Tuesday, 9/22</i>	<i><b>In person</b> - Quiz over graphing, estimation, etc  Something else</i>	<i><b>Virtual</b> - Linearization stuff/Pivot Interactives preview</i>
<i>Wednesday, 9/23</i>	<i><b>Virtual</b> - Grading a sample quiz for the rubric (SBG)?? Probably not this early since other section not taking quiz yet</i>	