

## VLA Physics - Syllabus for 9/8/2020 - 9/18/2020 (Units 0/1 - Course introductions and expectations, mindset, expectations, and scientific methodology)

### 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.

- **Synchronous learning** → On Mondays and Thursdays from 2:30 PM - 2:55 PM [with this link](#). I'd honestly like longer than this, but over half of the students have other VLA class schedules with at least some time overlap, and I worked out this time as being open by coordinating with other teachers.
- **Office hours** are from 2:00 - 2:55 PM on Tuesdays and Fridays [with this link](#), although you are free to contact me through Remind or email at many other times.

Daily schedule	VLA cohort
Monday, 9/7	No school, Labor Day holiday Remember, your work from last week is due by 12:00 PM tomorrow (on Tuesday)
Tuesday, 9/8	<ol style="list-style-type: none"> <li>1) Watch my video lecture called Academic Integrity, and complete your comments in the shared Google Doc on how to handle the situation you're assigned by Thursday's synchronous session at 2:30 PM. <b>Each student should post responses (and comment on responses already made). I would recommend completing your responses today.</b></li> <li>2) <b>Virtual office hours (just call into Google Meet) from 2:00 - 2:55 PM</b> to answer any questions.</li> </ol>
Wednesday, 9/9	<ol style="list-style-type: none"> <li>1) Graphing pre-assessment (not for a grade). Please submit this as a picture or a Jamboard. You also will want to watch the Jamboard tutorial video that's with the assignment. <b>This is due today since it's an assessment.</b></li> <li>2) 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 <b>today</b>.</li> </ol>
Thursday, 9/10	<ol style="list-style-type: none"> <li>1) <b>Attend the virtual Google Meet at 2:30 PM.</b> We'll discuss the Academic Integrity scenarios that were assigned on Tuesday and answer any other questions you have.</li> </ol>
Friday, 9/11	<ol style="list-style-type: none"> <li>1) 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 during our synchronous Google Meet, so it will be due by Sunday, 9/13 at 11:59 PM.</b></li> <li>2) <b>Virtual office hours (just call into Google Meet) from 2:00 - 2:55 PM</b> to answer any questions.</li> </ol>

Daily schedule	VLA Cohort
Monday, 9/14	<b>Virtual</b> - Collect data for a glass in your household for the 'Cheers to rates of change' lab (I'll post a quick tutorial video for this by today as well). You can make the graph on the lab handout by hand if you print it out, or you can make the graph in your composition book and take a picture of it and insert it in the Google document. You should also take a picture of the glass you used and put in in the Google document. <b>This needs to be done and submitted by Wednesday, 9/16 at 11:59 PM</b> so I can share the data during the Google Meet on Thursday for a class discussion.

<b>Tuesday, 9/15</b>	<b>Virtual</b> - Watch the lecture on graphing and complete the exit ticket <i>before</i> our synchronous Meet at 2:30 PM. We'll also discuss the Mindset activity but mostly discuss graphing during the synchronous Google Meet.
<b>Wednesday, 9/16</b>	<b>Virtual</b> - Watch the video on Using Graphical Analysis and complete graphing two of the sets of data in Graphical Analysis by Tuesday, 9/22 at 12:01 PM. Submit these by taking screenshots (or pictures with your phone) and uploading them to the assignment.
<b>Thursday, 9/17</b>	<p><b>Virtual</b> - We'll discuss the 'Cheers to rates of change' in our synchronous meet today. There will be questions about this lab on our first quiz next week.</p> <p>Round Things lab (at home). Collect data today for the circumference and diameter of round things in your composition book or on the Google Doc. I'll have a handout for the lab and a brief video describing how to collect your data and how to complete the lab.</p>
<b>Friday, 9/18</b>	<p><b>Virtual</b> - Complete the Round Things Lab completed by Wednesday, 9/23 at 11:59 PM. You'll submit this as a lab write-up, and I'll provide you a template for this in Google Classroom. By 11:59 PM on Sunday 9/20, you should have the following things shared on a Jamboard that will be common to all students. (Each student will use one page of the multi-page Jamboard).</p> <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 mathematical relationship</li> <li>4) Prediction for how high your ball would bounce if dropped from 2 meters</li> </ol>

*A look ahead to the week of 9/21:*

Misleading graphs at <https://www.statisticshowto.com/misleading-graphs/>

Quiz over graphing, mindset and academic integrity things

Getting into forces!