Summer Learning 2017

Department: Science

Course Title: DLI - Advanced Physics

Teacher: Dr. Sullivan

ENTERING DLI - Advanced Physics

Overview

This summer, to prepare for *Advanced Physics*, you need to:

1. Read chapters 1-12 of *A Short History of Nearly Everything* by Bill Bryson.
2. Complete this short, free, online course in Python https://www.codecademy.com/learn/python
3. Download and install the Anaconda Python Distribution (https://www.continuum.io/downloads). You should install the Python 3.6 version.

Reading

Please read Parts I, II, and III **(Chapters 1-12)** of *A Short History of Nearly Everything* by Bill Bryson. You can read the whole book if you wish, but please read at least those first three parts. They cover much of the history of our understanding of the Universe in a fairly compact and engaging presentation.
After, or during, reading do the following:

- Create a document, which you share with me, entitled "DLI Advanced Physics Summer Work - YourLastName".
- In this document, explain which chapter or chapters were most interesting to you. Why did that material capture your interest? What questions did that chapter raise for you that you would like to explore further in this course if possible?

This is due on the first day of class.

Python Course and Software Installation

We will be using the Anaconda Python Distribution (APD), with Spyder as our Integrated Development Environment (IDE) throughout this course. The CodeCademy course is all in-browser and doesn't require a local installation of Python. It will walk you through basic Python syntax and a few fun problems and projects that you can solve with code. The course is listed as taking about 13 hours to complete. However, I would not be surprised if it takes much less than that. After installing APD, you can copy the code you write in the CodeCademy course into your own IDE and play with it there. As a followup to the CodeCademy course, I highly recommend the Google Python Class. The video content there is pretty great to follow along with once you have Spyder set up and running on your computer.

Final Note

Let me know via email (brian.sullivan@woosterschool.org) if you have any questions. I am looking forward to our journey together starting this fall.