

wk_01_Pre-class_Reading

1. Visit [Canvas section website](#) and [Canvas multisection website](#), and familiarize yourself with the two websites.
2. Read the Syllabus carefully and thoroughly.
3. Read the draft discussion slides from the relevant week's module in Canvas.
4. Later during the semester, weekly readings will refer to the following online free book: [University Physics, volume 2, Rice University OpenStax](#). Familiarize yourself with this good resource.

Optional Reading:

1. Read sections 2.1 through 2.6, 4.1, 4.4, 4.5, 4.14, and 4.31 from [Experimental Methods for Engineers by J. P. Holman, 4th edition](#)
2. Read about 'Standard Error of the Mean' from any resource such as [section 12.3](#) of this online book: Statistical Thinking for the 21st Century by Russell A. Poldrack.
3. Read/watch the following resources:
 - a) Brief description of history of magnetism: <https://nationalmaglab.org/education/magnet-academy/history-of-electricity-magnetism/timeline/600-bc-1599>
 - b) Brief description of history of electric power generation: <https://www.powermag.com/history-of-power-the-evolution-of-the-electric-generation-industry/>
 - c) Brief description of history of electric grid: <https://youtu.be/J0GYzULWO1I>
4. Read the following webpages:
 - a) How to measure voltage: <https://www.ni.com/en-us/support/documentation/supplemental/21/how-to-measure-voltage.html>
 - b) An introduction to Analogue-to-Digital Converters, (ADCs): <https://www.electronics-tutorials.ws/combinatn/analogue-to-digital-converter.html>
 - c) How Much ADC Resolution Do You Really Need? by Roger W. Lockhart, DATAQ Instruments: https://www.dataq.com/resources/pdfs/article_pdfs/adc-resolution.pdf

Optional Review:

1. Read one or both of the following:
 - a) Chapters 1 and 2 of this online book: [University Physics, volume 1, Rice University OpenStax](#)
 - b) Chapter 1 of the textbook: University Physics with Modern Physics by Hugh D. Young and Roger A. Freedman, 15th ed.
2. From this online book: [Calculus, volume 3, Rice University OpenStax](#),
 - a) read the following: Sections 2.1 through 2.4, Section 4.3, and Section 7.1;
 - b) familiarize yourself with [Table of Integrals](#); and
 - c) familiarize yourself with [Table of Derivatives](#).