

# FROM THE DESK OF DAVID L. SCHUTZER

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## HOW TO READ INSTRUMENTS

1. Check scale on instrument to see what “system” it’s using, *i.e.*, English, metric. We only use metric in the sciences, unfortunately many instruments still come both English and metric shown.
2. Check to see what is the accuracy of the instrument, *i.e.*, cm, mm, 0.1mm or fractions of an inch
3. Do not interpolate to some smaller dimension, *i.e.*, if the instrument like our dial calipers are marked 0.1mm then if the dial hand seems to be between 2 marks **DO NOT** write down a number like 24.25mm. The correct reading would either be 24.2mm or 24.3mm based on your judgment. Remember these are inexpensive instruments made of plastic and, consequently, have a “built-in” error from their construction.

## ROUNDING AND INDEXES

1. Do not round until you have finished any calculations, *i.e.*, use the numbers as read from the instruments in you calculations.
2. After you have calculated the index [including the multiplying by 100] round to a whole decimal, *i.e.*, 85 not 85.0 following any of the many rules of rounding that you may find on the internet. Google has many options for you to use but the most important rule is **CONSSITANCY** in your work.