

Assignment # 5 Quantitative Thinking in the Life Sciences (Fall 2012)
(Assigned on Oct 3rd. Due on October 10th – 50 points)

Part 1: Measurement error

- What data will you obtain to answer your questions (e.g., rainfall, temperature, flower area per plant)?
- How well will you be able to measure those data?

Specifically, for each major component of your concept map:

- Are you going to be taking data to quantify this component?
- What measurement error(s) might be associated with these data?
- What might those errors look like? For example, will your measurement errors be:
 - Normally distributed around your expected value with limited precision and accuracy errors
 - Normally distributed but biased towards measured values under the true value
 - High precision, low accuracy errors associated with detection errors
 - Skewed errors (e.g., mostly small errors but with the occasional large error caused by an unusual event such as a large rainfall event overwhelming the system?)

Part 2: Chapter 6 R Code

Run through the *Chapter 6: Oct 3rd R Code* found under the courses tab:

<http://www.uvm.edu/~scmerril/Courses.html>

Turn in your code (remember to annotate!) and results as part of this assignment