**Quiz Intro-1**

Part I – Individual Quiz (Before Class)

Part II – Group Quiz (During Class)

1. What are the three decisions to make in any experiment (2 pts)?

The response, the treatments, the units

1. What is the source of variability we want and the two sources we don’t want (2 pts)?

variability due to conditions of interest (wanted)

variability in the measurement process(unwanted)

variability in the experimental material and process(unwanted)

1. Out of the three kinds of variability, what is the type that threatens disaster (2 pts)?

Variability in the experimental material and process

1. Explain the difference between chance error and bias (2 pts)?

Chance error allows the methods to choose and bias is when the experimenter dictates what is happening in the experiment.

**End of Part I**

1. Were you in class on time (2 pts)?

Yes

1. (2 pts). You want to test to see which popcorn recipe would give the best taste?

What Measure to Make (The Response)

A scale of 1-5 based on a base with different people.

What conditions to Study (The Treatments)

Different types of popcorn with different amounts of butter and salt.

Butter type. Corn Type. Cooking Method.

Experimental Material to Use (The Units)

Popcorn.

1. (2 pts). You want to test to see which popcorn recipe would give the best taste?

Variability Due to the Conditions of Interest (Wanted)

Different tastes

Variability in the Measurement Process (Unwanted)

Measurement of ingredients. Temperature of cooking. Left over residue from previous taste. Difference in judges.

Variability in the Experimental Material and Process (Unwanted)

Grower, interruptions.

1. (2 pts). You want to test to see which popcorn recipe would give the best taste?

Planned, systematic variability – the kind we want

Change across treatments in recipes.

Chance-like variability – the kind we can live with

Randomize the tasters or randomize the popcorn with the same taster.

Unplanned, systematic variability – the kind that THREATENS disaster

Randomize order in cooking recipes.