Exam 2 will be given Thursday, October 31.

The exam is <u>long and will require you to work quickly</u> through the easier stuff. You will have much more time if you do some of your data manipulations ahead of time. You will not have time to read all the material for written answers, so <u>you definitely need to study</u> ahead of time.

Exam 2 is open books, open internet, open anything except communication with other people. Most questions require you to manipulate data in Excel to answer questions. In this guide I am telling you in advance some of the data manipulation you may be asked to perform, and you can go ahead and do these manipulations in your spreadsheet before your exam. In several places I tell you part or all of the question in advance. All answers requiring "one articulate paragraph" must be written on the exam itself (cannot be written before the exam).

Please go ahead and download the data for the exam at
http://seeds.okstate.edu/SeedsPPP/fall2013/Exams/Exam2/Exam2Data.xlsx
and save it so that you can open it and use it even if the internet is broken.

The exam will cover the following material.
- Everything in CN.2
- Everything not crossed out in TAN.3.
- The worksheets completed on
    - October 22
    - October 17
    - October 15
- Homework 6
- Homework 7
- Homework 8

The questions and the material they cover are as follows.

Section 1

Download the data containing 3,000 survey responses detailing the value each respondent places on (a) eggs raised in a cage system and (b) eggs raised in a cage-free system. The sheet *Original Data, Eggs* contain these data. However, I want you to evaluate the values only for a subset of these individuals. The sheet *Filtered Data, Eggs* have the IDs for this subset, and only these individuals should be used in the data you analyze.

(1) **[VLOOKUP function from CN.2] (worth 2 points)** Using the VLOOKUP function, retrieve the values for both eggs for each ID number in the sheet *Filtered Data.*

(2.a) **[CN.2](worth 1 point)** *A calculation*

(2.b) **[CN.2] (worth 1 point)** *A calculation*

(3) **[TAN.3, Section A](worth 1 point)** *Multiple choice*

(4) **[TAN.3, Section A, hypothesis test, Homework 7]**

(4.a) **(worth 3 points)** *Short answer, interpretation*

(4.b) **(worth 3 points)** *Short answer, interpretation*

(4.c) **(worth 1 point)** *Short answer.*

Section 2

Use the salary data in the *Salary Data* sheet to answer the following questions. However, before you use Pivot-Tables to compute average salaries, use DATA FILTER or DATA SORT to remove all individuals with less than 10 years of experience.

(5) **[CN.2 Pivot-Tables, Homework 6] (worth 1 point)** *A calculation*
(6) **[CN.2 Pivot-Tables, Homework 6] (worth 1 point)** *A calculation*
(7) **[CN.2 Pivot-Tables, Homework 6] (worth 1 point)** *A calculation*
(8) **[CN.2 Pivot-Tables, Homework 6] (worth 1 point)** *A calculation*
(9) **[CN.2 Pivot-Tables, Homework 6] (worth 1 point)** *A calculation*
(10) **[TAN.3, Homework 7] (worth 1 point)** *Definitions, fill in the blank*

Section 3

(11) **[TAN.3, Section A, 2nd price auction] (worth 1 point)** *Fill in the blank*

(12 **[TAN.3, Section A, 2nd price auction] (worth 1 point)** *Fill in the blank*

Section 4

In the sheet _WTP Humane Pork_ are data I have collected on the value people place on gestation-crate free pork, above the value they place on regular pork. That is, the numbers tell us how much more they will pay in addition to the price of a regular pork chop to know the sows were not confined in gestation-crates. Use these data to answer the following questions.

(13) **[TAN.3, Section D] (worth 1 point)** _A calculation_

Make a new variable for demographic groups, where Group 1 is low income females, Group 2 is low income males, Group 3 is high income females, and Group 4 is high income males. High income is defined as household income of $60,000 or more. In column D, give Group 1 a value of 1, Group 2 a value of 2, and so on. You may need to sort the data first to make this easier.

(14) **[TAN.3, Section D] (worth 1 point)** _A calculation_
(15) **[TAN.3, Section D] (worth 1 point)** _A calculation_
(16) **[TAN.3, Section D] (worth 1 point)**_A calculation_
(17) **[TAN.3, Section D] (worth 1 point)** _A calculation_

We use this sample of people to make inferences about the population of Americans. Suppose we know that the distribution of each group in the American population is given by the table below.

Group	Percent of Population
1	40%
2	30%
3	15%
4	15%

(18) **[TAN.3, Section D] (worth 3 points)**_A calculation_

Section 5

When I interview and survey people regarding their views on animal welfare issues, I suspect that those with the most empathy for animals are more likely to give me information, while those who think animals have no rights and farmers should be able to do whatever they want with animals are reluctant to chat with me. Suppose that my suspicion is true, and suppose I am particularly interested in people's answer to the question…

To what extent do you agree or disagree with the following statement (1 = strongly disagree, 7 = strongly agree): **Low meat prices are more important than the welfare of farm animals**.

1 2 3 4 5 6 7

Strongly Disagree ○ ○ ○ ○ ○ ○ ○ Strongly Agree

(19) **[TAN.3, Section C] (worth 2 points)***Multiple choice*
(20) **[TAN.3, Section C] (worth 2 points)** *One articulate paragraph*

Section 6

(21) **[TAN.3, Section C] (worth 2 points)** Alfred Kinsey's research was controversial for a number of reasons, one being that he was postulating things about the sexual behaviors of all Americans that just didn't seem accurate to many Americans. This was due to a flaw in his statistical methodology. What was this flaw and to what extent was it compensated for by a large sample size? Tell me in an articulate paragraph.

(22) **[TAN.3, Section C] (worth 2 points)** *Math*
(23) **[TAN.3, Section C] (worth 2 points)** *One articulate paragraph*