Everyone,

The first intellectual festival (AKA first exam) will cover all of the material in the first four chapters of the book and will have questions from the following list:

1) 15-20 multiple choice questions. These tend to be questions related to specific facts (e.g., definitions & symbols) or very short calculations.

2) Three (out of five or so) short answer (paragraph-length) questions. These are generally related to major concepts, several of which I have rather pointedly hinted at in class.

3) an IVPPSS.

4) calculate (by hand, showing your work) the mean/sd for a short (~6) list of numbers.

5) calculate (by hand, showing your work) the median/IQR for a short (~20) list of numbers.

6) A univariate EDA for categorical or quantitative data. This will require you to extract information from R output that I will provide -- including a histogram and summary statistics for the quantitative case and a frequency and percentage table for the categorical case. You will NOT need to use R commands to produce histograms, summary statistics, boxplots, frequency tables, percentage tables, or bar charts.

7) Five normal distribution questions (one background, five questions related to that background). This question will require you to be able to use distrib() in R to produce output to answer the questions. I will provide a reminder of the arguments to distrib() that will look like the following ….

```
library(NCStats)
distrib(x,mean=##,sd=##,lower.tail=XXXXX,type="X")
```

where **x** is replaced with the value of the quantitative variable or the area

    mean=## has ## replaced by the value of the mean

    sd=## has ## replaced by the value of the standard deviation

    lower.tail=XXXXX has XXXXX replaced with TRUE (the default) for a "left-of" and
      FALSE for a "right-of" calculation

    type="X" has X replaced with p (the default) for a forward and q for a reverse
      question

The exam is closed book, closed notes, etc. You should bring a calculator and you MUST use a pencil. Exams written in red ink will not be accepted. In full disclosure -- there will be multiple versions of the exam so please do not embarrass yourself, and earn an "F" for the class, by cheating from your neighbor. Your RStudio must open with either no scripts or a blank script – i.e., the upper left pane must not have any previously entered R code in it. Opening any other software or previous script will result in an automatic "F" for the class. In addition, I will be monitoring computer usage and you will only be allowed to open RStudio.

The exam will start promptly at the beginning of class (on the hour) and will end promptly 1 hour and 50 minutes later. Please let me know ASAP if you have any conflict with staying 20 minutes past our usual class ending time.

We can discuss this more in class, but also let me know via e-mail if you have any questions.