This preliminary exam will be a take home exam. Students will be allowed two weeks to complete the assignment. Students will be required to sign a document stating the work completed on this preliminary exam assignment, was conducted independently. Any violation of this policy will result in a failure for this attempt. Students may not seek or receive help from any another person. Students may utilize their class notes, books, research articles and any statistical software deemed necessary to solve the problem.

The courses for this Methods Preliminary Exam will be selected by the student, but pre-approval by the Doctoral Advisor by the end of April is required. Each exam problem will be selected by an instructor and given to the student in an electronic form around the middle of June (please contact the Doctoral committee for exact day).

The exam will consist of two problems (one for each of the two Methods courses selected). Although the instructor has the discretion to make changes to this rule if necessary.

For each problem, a student will be given a data set with some question(s) to answer.

Students are required to write a report for each of the problems. The report does not need to be extensive but will be graded on how well it incorporates the following components:

(i) INTRODUCTION: This is a brief introduction to the problem, history and/or genesis of the problem/data.

(ii) STATISTICAL ANALYSIS: This section is essentially a restatement of the posed questions along with a description of how the student plans to address these questions. For example, the student will determine what tests, models or software will be utilized. Students can, and probably should, also comment on the appropriateness of the chosen analysis.

(iii) RESULTS: This section is a write-up of the findings. Answers to the questions need to be given in terms of the context of the problem with supporting p-values, descriptive statistics, appropriate graphs, but no SAS/R/Minitab output.

(iv) CONCLUSION: Short summary of the problem and major findings. Similar to what is done in a regular paper.

(v) APPENDIX: The appendix contains the actual computer output that was used to write up the RESULTS section. Only output used to make conclusions should be included. As a rule of thumb, students should include enough output so that an independent statistician (i.e. the faculty member grading) can easily look at the output and determine weather or not the student is interpreting the output correctly.

Completed assignment should be submitted to the instructors in the agreed upon format and submitted as required by fax or email.