

# STAT 203 - Course Project and Paper

**Purpose** - This project is intended to demonstrate to students the widespread use and applicability of statistical methods in practice in the context of scientific research which is of interest to students. This project also permits students teach themselves of the uses, abuses and limitations of statistical techniques that go beyond those learned in class. Students are to read and critique **two** research papers that use statistical methods.

**The Assignment** – Students are to focus on two specific themes of interest and to obtain two (2) research papers in these various fields and from different journals. Students are requested not to choose articles from the same journal (as they tend to repeatedly use the same statistical techniques). Choose research papers that are somewhat rich in statistical methods – i.e., do not select research papers that, although possibly of interest, only give graphical analysis or use very basic or no statistical techniques. Note that many interesting research articles can be obtained via the Web – either through Loyola’s Library e-Journals or from the Archives pages of most journals themselves.

**Your Paper** – Your objective is to outline, discuss and critique the statistical methods used in each of these two research articles, and so your paper should give the larger picture of the specific field of study as well as a discussion and critique of the statistical techniques used in the research articles you have chosen. If possible, connect and contrast the articles to the degree that this is possible. All assumptions and hypotheses used in the articles must be clearly stated in your analysis (even if the articles make no mention of these). Your paper might include sections titled “Introduction” or “Background”, “Statistical Methods Employed” (for each paper), “Critique of Statistical Methods” (again for each paper), and “Conclusion.” It may help you to imagine that your audience is a classmate who has completed this course.

**Important Milestones** – here is the timeline:

- On or before **Thursday 29<sup>th</sup> November**: Dr. O'Brien must have approved the use of each student’s two articles - this means that it is each student's responsibility to see Dr. O'Brien so he can look through your articles to verify that the articles meet the criteria for this project
- On or before **Thursday 13 December**: papers are due by noon

**What to turn in** – Students must do their own work for this project, meet the milestones given above, and for each of their two articles, must turn in a 1-2 page typed double-spaced paper by Thursday, 13<sup>th</sup> December 2007 by 12 noon. Student’s grades for this Project/Paper will reflect the quality of the paper you have written including the underlying analysis and critique; points will be deducted if you miss any of the above milestones.

*Please attach a spare copy of each of the two research articles with your paper (as these will not be returned to you) so as to facilitate subsequent grading.*