Course Outline STA492H1
A Seminar in Statistical Science

from the private notebook
of
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contact info: **seminar:**

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the science of doing science

Broadly speaking, *statistics/statistical theory/statistical practice* (by what-ever name) is 'the science of doing science'. And so to convey that general meaning, we often simply refer to it in a compression of that very phrase as *statistical science.* And sometimes we even refer to it in the plural collective as *the statistical sciences* thereby to remind ourselves that there are indeed many and diverse interests in the wide (and ever-expanding) domain of the general subject. In any case, *statistical science* is a very broad category of study, but anyone engaged in any specialized aspect of that study, in the learning, the searching and/or the researching, understands that it is en-tirely open-ended and forever pending endeavour.

calendar description

This course is intended for students completing the *statistical science: theory and methods specialist program.* Novel influential ideas and current research topics in statistics will be explored through readings and discussion. Con-tent will generally vary from semester to semester. Student presentations

and written reports will be required.

course objectives and structure

Even while understanding that we have all been students in the same university, in the same department, and in the same programme of study (for at least a couple of years) — and mostly taken the same or similar courses over time — it still must be granted that each of us in this seminar, in this particular year, comes, potentially, from a quite different background in life, has different career aspirations, hopes and dreams, and so on, and so on. So, while we are all interested in considering the research opportunities available to a career statistician (or we wouldn't be in this seminar), these are so manifold and varied that no individual human can truly hope at this point in history to become fully expert in more than a few closely related specialized areas of study.

Each of you has the unbridled freedom to choose for yourself a topic in the literature at large. Your only responsibility will be to keep all of us (but me especially) in the loop. We need to share. That is the prime directive of any seminar. In that connection, you also need to stay organized. So it will also be part of your duties to maintain a weekly diary and share a summary of it each session or so. " ... went to the robarts library, looked through the journal, *JASA*, 2005, ... interested in the article ... and other work by the same author(s) ... " You are not required to become an expert yourself. Your job is simply to engage the literature in some coherent way that identifies a specific topic in a specific area of the statistical literature and present it to the rest of us in, say, a couple of 40 minute sessions plus a final presentation — anything from time series to machine learning to statistical genetics to spatial data to ... well, you get the idea. This will involve a search through the literature under the auspices of the university library.

grading (G) :

It is in the very nature of a seminar, that all grades will be ongoing, and, of necessity, also participatory:

group participation (P_1) $=$ 40 – no fixed date
individual participation (P_2) $=$ 60 – no fixed date
final grade $G = P_1 + P_2$