STAT4404 (Advanced Stochastic Processes II)
Instructions for the Course Summary Assignment

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This final assignment of the course does not involve any problem solving but rather a summarizing writing task. The goal is to write a 3-6 page paper that briefly, yet precisely, describes the probability tools and their application seen in the course. It is important that your paper includes at least 60% of the methods seen and applied during the semester.

You can use the course outline that we followed (blocks 1-4) as a general path for your description. Alternatively, you may choose any other means of presentation and outline that you might consider appropriate. In addition, if you wish, you can base your paper on some hypothetical or real example which might require the use of the techniques that we have studied during the semester to answer a given question.

The paper needs to be self-contained so that no prior knowledge of the material covered in the course is assumed. Nevertheless, you can presume that your reader knows about linear algebra, analysis, probability and basic measure theory. Furthermore, the paper should not mention the "Advanced stochastic process II" course and it should be a self contained document. In this respect, you should reference some sources, such as for instance, the books and/or papers suggested in this course amoung others, if that is needed.

The grading of this assignment is divided as follows:

- **20% Precision and flawlessness:** Punctuation, English, consistency and having a general professional appearance (as though it was in a scientific journal).
- **30% Mathematical and technical correctness:** All statements (summaries of results) need to be precise and self contained within the paper (terms need to be defined - even if this is done very briefly).
- **30% Scope:** As described above, the requirement is that 60% of the general problems described and solved in the scope are (briefly) summarized.
- **20% Originality and touch:** Is your paper written in a smooth and original form? If so, even a seasoned probabilitist would enjoy reading because of the innovative point of view. Moreover, non-specialists or researchers that do not know anything about advanced probability theory will also find it useful.