**Term Project Written Report Guidelines**

These are typical ingredients of a project report. (depending on your project, some items may not apply).

* Abstract: 1 or 2 paras
* Introduction & Background: What is the problem being addressed; why is it important? Past related work on the problem done by others. Outline of your approach and rationale for the same. Mathematical Notation used; Novelty/key contributions/significance.
* Theoretical models/developments (if any)
* Empirical Results:
* Data Acquisition/Description:
* Exploratory Data analysis/Pre-processing/Feature Extraction/Selection:
* Descriptive/Predictive Modeling. What models did you select? Why? How were parameters determined? Other design choices.
* Empirical Results and Comparisons (incl. figures/tables)
* Key Findings and Lessons Learnt
* Conclusion
* References

Appendix: Mathematical Proofs (if any); Code (or pointer to code).

**Evaluation Criteria include**: clear description of project goals (and business relevance if applicable), approach to pre-processing of data and feature extraction, the choice of predictive models used (and rationale for these choices), proper use of these models, e.g. address overfitting vs. underfitting, model complexity; novelty of approach/method/algorithm, presentation and evaluation of results; replicability of the results (is the description such that someone well versed in the art can obtain similar results on the same data?), insights obtained from the effort, potential business impact or how the results can be “actioned upon” (if applicable), appropriate/relevant reference list and quality of the writing (grammar and style).

**Project Presentation Tips**:

Be very aware of the allocated time. Keep some time for Q&A, this is where you might get some useful feedback.

Don’t spend most of the time on slides full of results. (typically students end up with too many slides). Rather than giving a laundry list of all that you have done (especially the results of all the experiments you ran), think from the audience’s viewpoint: what will interest them the most? What will provide them with the most value, while not boring them?

Combine many results in one slide, e.g. multiple ROC curves in one figure so one can visually compare them; or the accuracies/MSE of multiple models in one slide.

If there was some unusual step needed in pre-processing/modeling, highlight that.

The number of decimal places in results should be commensurate with the uncertainty in the answers. Figures should have legible captions/labels/legends.

(think about size of the room).

What could others learn from your experience? For example,

what were the key challenges? The key take-aways? Were there any unexpected problems encountered that you had not anticipated?

If you had more time and/or expertise what extra work would you have done?

What would you have done differently if asked to do the project again?

Clearly given the limited time you cannot cover all the issues above, but do cover some of them!