



CSE 410  
Introduction to Artificial Intelligence  
Homework 1.  
Total Marks 100

Your Name:

Your email ID:

Your UB Person ID:

**Problem Description:** What is the task that you intend to solve in this assignment?

**Method:** Brief description of the method that you follow ( if you are doing linear regression, describe the process, preferably with mathematical details.)

**Dataset description:** size, training /testing distribution, features etc.

**Experimental Details** Describe your implementation, your experiments, and analysis. In particular,

- How is your prediction task defined on this dataset specifically ? linear/logistic regression, and what is the meaning of the output variable?
- Did you process the features in any way?
- Did you try to tune the hyperparameters of the learning algorithm, and in that case how?

- How do you evaluate the quality of your system?
- If you want to use the regression result for classification, what is the optimal  $\theta$  ( i.e. what is the best decision boundary based on the training data distribution? How did you arrive at your decision?
- Is it possible to say something about which features the model considers important?

**Experimental Details** A similar set of details should be added for Logistic Regression.

**Comparative Study between two methods**

**Conclusion**