Syllabus and Policies for
Introduction to Machine Learning
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CMPS 242        Fall 2018

Background Required
Basic knowledge of Linear Algebra and Probabily Theory

Course Description
We will cover all basic machine learning methods:
- Linear regression, logistic regression
- Basic Bayesian methods
- Gradient Descent, Exponentiated Gradient algorithm, online versus batch methods
- Neural nets (convolutional neural nets, LSTMs, GANs)
- Duality
- Support Vector Machines & Kernel methods
- Boosting
- Random Forests and decision tree algorithms
- EM
- Online learning
- Visualization (TSNE, LargeVis, TriMap) & Clustering

Evaluation Criteria
Theoretical homeworks 30%, programming homeworks 35% and project 35%
For the project you need to do write up (10-15 pages) and a presentation
(either during last class or at a setup time during final’s week)

Academic Honesty
Theoretical homeworks: on your own.
Programming homeworks: up to 3-4 in a group (see assignment).
Projects: 4 in a group

Communication
Our main mode of communication will be via the class web page and Piazza.
Sorry - No incompletes for a class of this size ! No cell phone usage during class!