# Intro to Machine Learning (1st half)
# Syllabus

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This class is an introduction to supervised learning, ie, predictive models ideas. Our main goal is to introduce the main concepts and the students familiarize with the most popular tools in this area. The focus will be very applied as a more advance class on this topic will follow up in the Fall. Topics covered include: (i) $k$-Nearest Neighbors; (ii) Regression; (ii) Logistic Regression; (iii) Naive-Bayes; (iv) Regression Trees, (v) Neural Nets, etc.

This is going to be a very intensive class and students are expected to keep up with the readings and assignments on a daily basis!

**1. Text Book:** We will be using as required text

*An Introduction to Statistical Learning* by James, Witten, Hastie and Tibshirani.

Our goal is to cover most of chapters 1, 2, 3, 4, 5, 6, 8 and 10 (not in that order!). Students are expected to read the the chapters as we cover the material and complete the `R` labs at the end of each chapter.

**2. Class Notes:** All course materials include slides and sample code will be made available in the class website at:

`https://sites.google.com/view/predictive-modeling/`

**3. Office hours:** Our TA (Frank Rotiroti rotiroti@utexas.edu) will hold office hours on Tuesdays (07/12), Thursday (07/14), Tuesday (07/19), Thursday (07/21). All office hours will be held on-line between 12-2pm CT.

**3. Evaluation:** your grade on my part of the class will be based on: **(1)** a very large homework (individual) due on August 1 (70% of the grade) and **(2)** a group project with a class presentation, code and data as deliverables (30% of the grade). Your group will be decided at random in the first day of class.