

Each week has classes on Tuesday and Thursday. On Tuesdays, give lectures on mathematical theory; on Thursdays, at least in the half of the semester, have lab-days to work on data sets through computer coding and packages.

Week 1: Python, scikit-learn

Week 2: (LA) Linear Regression

Week 3: (LA) P.C.A./S.V.D.

Week 4: (LA) Support Vector Machine

Week 5: (MC) Gradient Descent

Week 6: (P) Preliminaries on Probability, Bayes' Theorem

Week 7: (P&MC&LA) Logistic Regression

Week 8: (P) Bayesian Regression

Week 9: (P) Naive Bayes Classifier

Week 10: ROC curve

Week 11: Graph Algorithms

Week 12: Multivariate Gaussian distributions

Week 13: Sampling

Week 14: Basic Neural Networks