

Study plan for EEE 6608: October 2024

Machine Learning and Pattern Recognition

Teacher: Hafiz Imtiaz, PhD;

Professor, Department of EEE, BUET

Class: Wednesday 2pm at EEE 139.

Marks Distribution:

Midterm project	30%
Final project	40%
Final Exam	30%

Lecture Plan:

Lecture	Topics
1	Introductory discussions
2-3	What is machine learning? Linear regression on single variable
4-5	Linear regression on multivariate data; Logistic regression on multivariate data
6	Regularization
7-8	Neural networks
9-10	Support Vector Machines; Kernels
11	Clustering; Anomaly Detection
12	Dimensionality Reduction
13	Collaborative filtering
14	Expectation Maximization

Books:

1. Pattern Recognition and Machine Learning – C. M. Bishop
2. Foundations of Machine Learning – M. Mohri